

## Flexible word order and anchors of the clause

Ash Göksel

Boğaziçi University & SOAS

gokselas@boun.edu.tr

**Keywords:** postverbal area, preverbal area, copula, free word order, prosodic prominence, Turkish

### 1. Introduction

Although the absence of phonological prominence in the postverbal area in Turkish is a widely accepted fact, the source of this phenomenon has remained a puzzle. This paper takes one of the options for a solution to its logical conclusion in order to understand the imbalance between the preverbal and the postverbal areas in the clause. The work is part of an ongoing project on the alignment of segmental and suprasegmental material, which examines various options for this asymmetry.

Turkish has so-called ‘free’ word order. Word order flexibility in Turkish has been used for testing syntactic operations (e.g. A/A’movement), principles (e.g. Binding) and positions for various constituents, or for understanding properties of morphological features (weak vs. strong). But flexible order has not been evaluated in terms of whether it may be revealing some other underlying structure that has nothing to do with the above. The purpose of the present paper is to see whether word order flexibility is the key to another type of structure, one where prosodic and syntactic information are projected concurrently and in a particular constellation: H\*...V. I suggest that the source of this pattern is the copula, which is a trochee.

The investigation starts with questioning the idea of designated positions for major constituents. If there are no designated positions, what then? The alternative is linear domains. The implications of these claims for Turkish are a possible answer to the puzzle why the postverbal area cannot be phonologically prominent. A more general implication is a model where phonology is part of syntax.<sup>1</sup>

The paper is organized as follows. In section 2, a background is provided. Section 3 summarizes Kiss (2008) in order to set the stage for understanding whether verb movement can be an option for Turkish. Section 4 looks at the validity of having syntactic positions for the verb and information structural units. Section 5 challenges some assumptions made about Turkish in the context of the issues in this paper. In section 6 a proposal is made about the structure of root clauses in

---

<sup>1</sup> This paper is based, in large part, on a talk which I gave at the Mediterranean Syntax Meeting, 8-10 October 2010, National and Kapodistrian University, Athens. Some of the ideas go back to earlier work, especially Göksel (2001) which was presented at the Workshop on Word Order, Boğaziçi University. I would like to thank the audiences at both meetings. The development of the ideas presented here owes much to discussions I had with Wilfried Meyer-Viol, Barış Kabak, Anthi Revithiadou, Hubert Truckenbrodt, Beste Kamali, Güliz Güneş, Serkan Şener, Yuji Takano and Balkız Öztürk, none of whom are responsible for how their views have found their way into this paper. The fact that I benefitted from our discussions should not imply that they agree with any of the points made. I am solely responsible for all errors. This research was supported by Boğaziçi University Research Fund BAP #5842 (11B04P1).

Turkish. Section 7 discusses multiple base generation and section 8 concludes with some remaining questions and avenues for future research.

## 2. The asymmetric nature of the preverbal and postverbal areas

This section lays out the differences between the preverbal and postverbal areas. Turkish has all six word order permutations for major constituents (VSO, VOS, SOV, SVO, OVS, OSV). Dependency relations between constituents are sensitive to the linear ordering of these constituents, their position with respect to the verb, and what type of prosodic domain they are in.

### 2.1. Scope dependencies

The scope of quantifiers depends on a number of factors that affect interpretation. The linear position of quantified expressions, whether these constituents are focused or not, dominance relations, and the type of the particular quantifiers have been addressed in various works in this respect (Kural 1994, 1997, Göksel 1998, 2001, Aygen 1999, Göksel and Özsoy 2000, 2003, Keleşir 2000, 2001, 2009, Kennelly 2003, *i.a.*). Speakers' judgements vary on these constructions but we can still speak of a consensus about there being an asymmetry (Göksel 2001, 2011, Temürçü 2005, Kornfilt 2005). In the examples below, in order to eliminate the interpretive effects of focusing a particular NP, the verb has been given prosodic prominence.

#### 2.1.1. The preverbal area

In the preverbal area when the numeral expression precedes the universal quantifier, the numeral has wide scope:

- (1) a. İki kitab-1            her öğrenci            OKU-DU<sup>2</sup>  
           two book-ACC    every.student.NOM    read-P  
           'Every student read two books.'  
           OSV: 2 > V̂; ?\*V̂ > 2
- b. İki öğrenci            her kitab-1            OKU-DU  
           two student.NOM    every book-ACC read-P  
           'Two students read every book.'  
           SOV: 2 > V̂; \*V̂ > 2

When the universal quantifier precedes the numeral, the sentences are ambiguous.

- (2) a. Her öğrenci            iki kitab-1            OKU-DU  
           every student.NOM    two book-ACC    read-P  
           'Every student read two books.'  
           SOV: 2 > V̂; V̂ > 2

---

<sup>2</sup> Capital letters indicate constituents with prosodic prominence. Abbreviations: ACC: accusative, AOR: aorist, CONJ: conjunction, ConPrt: contrastive particle, COP: copula, EV: evidential, F: focus, FUT: future, H\*: high pitch, IMPF: imperfective, INF: infinitival, NEG: negative, NOM: nominative, P: past, PF: perfective, PSB: possibility, Q: quantifier, QPrt: question particle

- b. Her kitab-1            iki öğrenci            OKU-DU  
 every book-ACC two student.NOM    read-P  
 ‘Two students read every book.’  
 OSV: 2 >∀; ∀ > 2

Our main concern here is (1a,b) where the numeral expression comes before the universal quantifier and unambiguously scopes over it.

### 2.1.2. The postverbal area

The effect in (1a,b) above vanishes in the postverbal area; the order of the quantifiers becomes insignificant and all orders are ambiguous:

- (3) a. OKU-DU iki kitab-1    her öğrenci  
 read-P    two book-ACC every student.NOM (cf. 1a)  
 ‘Every student read two books.’  
 VOS: 2 >∀; ∀ > 2
- b. OKU-DU iki öğrenci            her kitab-1  
 read-P    two student.NOM    every book-ACC (cf. 1b)  
 ‘Two students read every book.’  
 VSO: 2 >∀; ∀ > 2
- (4) a. OKU-DU    her öğrenci            iki kitab-1  
 read.P            every student.NOM    two book-ACC (cf. 2a)  
 ‘Every student read two books.’  
 VSO: 2 >∀; ∀ > 2
- b. OKU-DU    her kitab-1            iki öğrenci  
 read-P            every book-ACC    two student.NOM (cf. 2b)  
 ‘Two students read every book.’  
 VOS: 2 >∀; ∀ > 2

Comparing (1) with (3) and (2) with (4) indicates that there is a ‘flattening’ effect in the postverbal area. Similar effects are observed in other data concerning scope.

## 2.2. Anaphoric dependencies

The asymmetry between the preverbal and postverbal positions is attested in anaphoric dependencies. A fact not noticed in studies on Turkish syntax is that reciprocals can function as subjects given the right context, in particular, a reciprocal can be a subject if it has prosodic prominence.<sup>3</sup>

### 2.2.1. The preverbal area

As in scope dependencies, anaphoric dependencies show some level of asymmetry between the preverbal and postverbal areas. Consider the following:

---

<sup>3</sup> See also İşsever (2007: ex. (42)) for similar observations regarding reflexive anaphors. We might add that anaphoric dependencies do not exhibit a clear application of Binding Theory principles in Turkish, see Meral 2010.

(5) (*Eğer seride dördüncü bir film olsaydı, yani mesela Yaratık 4, bu sefer*)  
*(If there had been a fourth film in the series, e.g. Alien 4, this time)*

yaratık-lar-ı BELKİ BİRBİRLERİ öldür-ebil-ir-di.  
 alien-PL-ACC maybe each.other.NOM kill-PSB-AOR-P  
 Lit. ‘Maybe each other could have killed the aliens.’

In this example the subject is a reciprocal anaphor bound by a direct object. The crucial point is that it is focused (and receives prosodic prominence). (6a) below shows the same effect. A comparison with (6b-c) shows that a de-stressed reciprocal anaphor cannot be a subject if it is in the preverbal area:

- (6) a. Ayşe-yle Ali-yi BİR TEK / BELKİ BİRBİRLERİ sev-iyor  
 Ayşe-CONJ Ali-ACC only/maybe.each.other.NOM love-IMPF  
 Lit. ‘Only/Maybe each other love Ayşe and Ali.’
- b. \*?Ayşe-yle Ali-yi birbirleri SEV-İYOR  
 Ayşe-CONJ Ali-ACC each.other.NOM love-IMPF
- c. \*Birbirleri Ayşe-yle Ali-yi SEV-İYOR  
 each.other.NOM Ayşe-CONJ Ali-ACC love-IMPF

### 2.2.2. The postverbal area

In contrast to what happens in the preverbal area, placing a de-stressed reciprocal anaphor in the postverbal area is more acceptable than the cases above.

- (7) a. ?SEV-İYOR Ayşe-yle Ali-yi birbirleri  
 love-IMPF Ayşe-CONJ Ali-ACC each.other.NOM
- b. ?SEV-İYOR birbirleri Ayşe-yle Ali-yi  
 love.IMPF each.other.NOM Ayşe-CONJ Ali-ACC

Interim summary: The grammar is sensitive to whether the constituents are located in the preverbal or postverbal areas. When there is a difference between the preverbal and postverbal areas, it is the postverbal position that allows multiple readings, or saves an otherwise unacceptable structure. What we can surmise from these examples is that the postverbal area has a flattening effect on c-command relations. Where there is an asymmetry between the two positions, it is always the preverbal area that is configurational. Similar effects have been observed in Hungarian (Kiss 2008), where the analysis hinges on verb movement, so our next stop is to see whether the analysis proposed for Hungarian applies to Turkish.

### 3. Asymmetry in Hungarian: Verb movement (Kiss 2008)

In Hungarian, the preverbal domain in the sentence is configurational while the postverbal domain is non-configurational (Kiss 2008). The constituents that occur preverbally are strictly ordered, while the same constituents are ‘freed up’ in the postverbal domain. The examples are given in (8), and the structure in (9):



Ali-ACC    see-P-1SG  
‘I did see Ali.’

see-P-1SG    Ali-ACC  
‘I did see Ali.’

Could the presence of the verb in sentence initial position be the result of EPP triggered movement? Alexiadou and Anagnostopoulou (1998) claim that EPP can trigger both V-zero movement or XP movement (see also Miyagawa 1997, Özsoy 2005 for EPP effects). However, independently of this, there is by now a considerable literature against the presence of EPP and its role as a trigger for movement in Turkish (Öztürk 2005, 2009b, İşsever 2008, Arslan-Kechriotis 2009, Şener 2010). If we assume that there are no EPP effects, this would leave us with either no trigger (Shlonsky 1997), or a scrambling feature (Grewendorf and Sabel 1994), both of which would be motivated for s-structure satisfaction. So the differences in the postverbal and preverbal areas cannot be due to V-movement, which means that we also cannot assign a specific position to the verb, as we have no way of knowing its ‘syntactic’ position.

This leaves us with a focus/topic trigger or the movement of non-focused elements to satisfy the structure of the sentence in (10b) (see Özsoy 2005, Öztürk 2005, İşsever 2008 and Şener 2010 for various analyses). These analyses assume designated topic/focus positions, to which we turn.

#### 4.2 Topic

Can we assign specific syntactic positions to topics? A study based on an oral database suggests that topics in Turkish can appear in the preverbal or postverbal positions, irrespective of whether they mark topic shift or topic maintenance (Güneş 2010). Around 12% of topics are located in the postverbal area and those that are located in the preverbal area do not have to occur in the initial position (see also Kamali 2009 for postverbal topics):

(11)

Sentences	Topics	Preverbal Topics	Postverbal Topics
3514	850	748	102

[adapted from Güneş 2010]<sup>4</sup>

This study shows that topics are not uniquely located at the left periphery, (supporting Kılıçaslan 2004, Kamali 2009, but contra Özsoy 2005), or before the pitch floored/downstepped area (contra Özge 2003). Moreover, another factor regarding topics has to be considered: Whether a constituent is a topic or not depends on the verb (Özge 2010). In (12a) the referential ‘piyano’ is the topic, but in (12b) the topic is ‘table’ (or ‘turn something into a table’):

<sup>4</sup> The preverbal vs. postverbal distinction is reflected in intonational contours. In the preverbal position topics have a rising accent (L\*H), while in the postverbal position a downstepped fall (!H\*L), see Güneş (2010). See also Turan (1998) for the position of discourse anaphoric constituents.

- (12) a. Ali bir piyano-yu KİRALA-MAK isti-yor  
 Ali a.piano-ACC rent-INF want-IMPF  
 ‘Ali wants to rent a piano.’ [Enç 1991]
- b. Ali bir piyano-yu YEMEK MASASINA DÖNÜŞTÜR-MEK isti-yor  
 Ali a piano-ACC turn.into.a table-INF want-IMPF  
 ‘Ali wants to turn a piano into a table.’ [adapted from Özge 2010]

### 4.3 Focus

Does focus occupy a specific position in Turkish? Focus is signaled by H\*<sup>5</sup> (Özge and Bozşahin 2010 and references therein).<sup>6</sup> A focused constituent can only occur in the preverbal area (Erguvanlı 1984, Kural 1994 among others), except for loan SVO constructions that do not have flexible order and have a different prosodic structure (Kan 2009). Movement analyses differ between what is moved (Kural 1994, İşsever 2008, Şener 2010). But if the generalization F→H\* is correct, then the relation between c-command and focus is not unique, because focusing a constituent may force it both to have narrow scope and to have wide scope. Focusing a constituent may force a narrow reading for the operator associated with the focused constituent:

- (13) a. Hasan yeni bir kitab-ı GETİR-ME-MİŞ ∃ > not  
 Hasan a.new.book-ACC BRING-NEG-EV  
 ‘Hasan didn’t bring a new book.’ (= There’s a new book that Hasan didn’t bring.)
- b. Hasan YENİ BİR KİTAB-I getir-me-miş not > ∃  
 Hasan A.NEW.BOOK-ACC bring-NEG-EV  
 ‘Hasan didn’t bring a new book.’ (= Hasan brought a book, but it wasn’t a new one.) [Özge 2010: 107a-b]

But a constituent with H\* can also outscope another one which does not have H\*.

- (14) a. Uyu diye KONUŞ-MU-YOR-UM not > purpose  
 sleep so.that SPEAK-NEG-IMPF-1SG  
 ‘I’m not talking so that you sleep.’ (I’m talking for another reason.)
- b. UYU diye | konuş-mu-yor-um. purpose > not  
 SLEEP so.that speak-NEG-IMPF-1SG  
 ‘I’m not talking, in order for you not to sleep.’  
 [Kamali 2010, ex. (3), with my modifications]<sup>7</sup>

5 For the descriptions of intonational objects I follow Pierrehumbert (1980): H%, L% are boundary tones, H-, L- are intermediate phrase boundaries, H\*, L\* are pitch accents.

6 The idea that H\* indicates focus may have to be subjected to a more fine-grained analysis (Özge 2010). Recent work on focus and pitch points to the possibility that it is not high pitch that marks focus but rather the sharp fall after the focused constituent (see Kamali 2011, Güneş 2012b and Gürer 2013). For the purposes of this paper, I use H\* to indicate prosodic prominence which refers to stress and/or high pitch.

7 In Kamali’s terms, negation cannot scope over a high tone.

In addition, a purely phonologically signaled focus as in (15a) does not induce (wh-) intervention effects, but *only*-focus does (Kesen 2010):

- (15) a. AHMED-İ kim gör-dü?  
 Ahmet-ACC who see-P  
 ‘Who saw AHMET?’
- b. \*Sadece AHMED-İ kim gör-dü?  
 only Ahmet-ACC who see-P  
 ‘Who saw only AHMET?’

These examples show that topic and focus phrases lack unique surface positions.

#### 4.4. A/A' positions

The difference between these positions rests on whether a moved constituent can be interpreted in its moved position or in its ‘base’ position. Kural (1994) who deals only with single constituents in the postverbal area claims it is a higher position which asymmetrically c-commands the preverbal positions and scopes over the operators there. However, when two quantified NPs are in the postverbal area, this results in a paradox with respect to the status of these positions, if we assume that they have moved from their base positions. As we have seen in (2), quantified phrases mutually c-command each other in the postverbal area:

- (16) [CP [ t<sub>i</sub> [ t<sub>k</sub> V] QNP1<sub>i</sub> QNP2<sub>k</sub>]]  
 (i) QNP1 > QNP2  
 (ii) QNP2 > QNP1
- (17) [CP [ t<sub>i</sub> [ t<sub>k</sub> V] QNP2<sub>k</sub> QNP1<sub>i</sub>]]  
 (i) QNP1 > QNP2  
 (ii) QNP2 > QNP1

This would result in the following paradox. QNP2 would have to reconstruct for the interpretations in (16i) and (17i), but would have to be interpreted in its postverbal position for the interpretations in (16ii) and (17ii). In other words, the same NP would have to reconstruct in some cases, and in others, not.<sup>8</sup> One way out of such complications has been to assume that mutual c-command in the postverbal area is replaced by ‘tucking in’ (cf. Richards 2010), in order to preserve the base order (Takano 2006). But taking this route would make these constituents lose their relation to their base positions. In addition, this is another way of stating that the postverbal area is flat(ter): i.e. that the hierarchical distance between the two nodes is reduced.<sup>9</sup>

A further complication with defining positions in terms of reconstruction comes from the differences induced by anecdotal events (e.g. past tense), and possibility markers (Özge 2010). In (18a) the (sentence initial) DO does not reconstruct, but in (18b) it does, indicated by the fact that the subject can have wide scope over it.

<sup>8</sup> See also İşsever 2007, Jiménez-Fernández and İşsever (frth.) for a similar paradox relating to A/A' positions in the preverbal area.

<sup>9</sup> Kornfilt 2005 words this as being PF related, but does not compare it to the effects of a mechanism such as tucking in.

- (18) a. İki kitab-1 her öğrenci OKU-DU (cf. (1a))  
 two book-ACC every student.NOM read-P  
 ‘Every student read two books.’  
 $2 > \forall$ ;  $? * \forall > 2$  (only non-distributive reading)
- b. İki kitab-1 her öğrenci OKU-YABİL-İR  
 two book-ACC every student.NOM read-PSB-AOR  
 ‘Every student can read two books.’  
 $2 > \forall$ ;  $\forall > 2$  (both distributive and non-distributive readings)

### 5. Questioning the idea of base positions for arguments

We have taken a glimpse at the difficulty in assigning unique functions/or categories to syntactic positions. Now let us turn to whether Turkish has basic structural positions associated with grammatical functions (for a critical evaluation of movement based analyses for Turkish, see Göksel 1993, 2011).

Major constituents in Turkish are considered by many researchers to be ordered as SOV in their base positions. I list below what may be some of the underlying assumptions for this. My intention is not to make sweeping generalizations or to disregard the many valuable insights gained from research where some of the assumptions below have been made, but rather to evaluate these as a starting point for an alternative view.

- (19) a. Turkish is a head final language.  
 b. Heads and complements are adjacent at the sentence level.  
 c. In the absence of case markers, two NPs are interpreted as SO and not OS.  
 d. Idioms have the same adjacency and directionality requirements as phrases  
 e. Turkish observes subject/object asymmetries.  
 f. These have to be expressed in the syntax.  
 g. The order in presentational focus sentences (i.e. SOV) should be taken as the base because it is the most common pattern.  
 i. ‘Neutral’ intonation should be taken as the ‘default’ case against which structure is defined.

I take each assumption in turn and evaluate it.

- a. *Assumption*: ‘Turkish is a head final language’.

Turkish phrases are head final in their ‘citation forms’. In speech, at the utterance level, head finality is not the norm. A study found that more than half of the quotatives in a spoken corpus were VO (including VSO) (İkizoğlu 2010). According to Hawkins (2009) if a language is not (rigidly) SVO, it presents more word order flexibility.

- b. *Assumption*: ‘Heads and complements are adjacent at the sentence level’.

The only phrase for which this holds *at the sentence level* is probably the P(ostpositional)P(hrase). Many years of theorizing have been based on OV as the only order for bare objects and verbs. Karahan (1991), Sezer (2006),

Göksel (1998), Uygun (2006), İşsever (2008), Gračanin-Yüksek and İşsever (2011) and other references in these articles illustrate that this is not so, and that bare objects can appear in various positions with respect to the other constituents. Some examples are given below (the examples are adapted for practical purposes, see also examples in the following works):

*Bare O in preverbal position preceding subject*

- (20) a .Kahve Ali de iste-miş-ti. (bareO S V)  
*coffee* Ali.NOM too want-PF-P  
 ‘Ali had also asked for coffee.’ [adapted from Uygun 2006]

- b.Kitap Ali çok oku-yor. (bareO S V)  
*book* Ali.NOM a.lot read-IMPF  
 ‘Ali reads books a lot.’  
 [adapted from Gračanin-Yüksek and İşsever 2011]

*Bare O in postverbal position*

- (21) a. Gör-dü-n mü hayatında hiç film? (V bareO)  
 see.P-2Sg QPrt in.your.life ever *film*  
 ‘Have you ever seen a film/films in your life?’  
 [adapted from Göksel 1998]

- b.Çalış-ma-yacağ-ım ders. (V bareO)  
 study-NEG-FUT.1Sg *lesson*.  
 ‘I won’t study (my lessons).’ [adapted from İşsever 2008]

- c. Kibar, iyi yürekli, mütevazi Muhlis Bey zaten iste-mez-di  
 kind hearted humble Muhlis Bey anyway want-NEG.AOR-P

mezar taşı.  
*tombstone*

‘Kind hearted, humble Muhlis Bey had never wanted a tombstone anyway.’ [from a short story written by S. F Abasıyanık, quoted in Karahan 1991:101]

- c. *Assumption*: ‘In the absence of case markers, two adjacent NPs are interpreted as SO and not OS’.

This assumption is correct only in presentational focus sentences which have a designated intonation contour and are uttered out-of-the-blue. In other contexts it is not correct (see Göksel 2011 for further discussion):

(22)

A.(Hayvanat bahçesindeki pandalar çok zayıftı...görünce içim acıdı. Önerine ekmek parçaları koymuşlar böyle...)

(The pandas at the zoo were very thin, I felt sorry for them...There was sliced bread in front of them and...)

B. (Ayyy, olur mu?)  
(What?? That's dreadful!)

Ekmek panda ye-mez ki                      yaprak, bambu yer...  
bread panda eat-NEG.AOR ConPrt      leaf bamboo eat-AOR  
'But pandas don't eat bread, they eat leaves and bamboo...'

- d. *Assumption*: 'Idioms and compound verbs have the same (OV) adjacency and directionality requirements as phrases'.

For most, this is also their citation form or presentational focus structure. Within a sentence, the order is flexible and idioms can be discontinuous (see Göksel 2011).

- e.-f. *Assumption*: 'Turkish observes subject/object asymmetries and these have to be expressed in the syntax'.

There is no a priori reason to assume that semantic compositionality is reflected in surface strings (Göksel 1992, 1993). Constructions with elliptical constituents, which have been used as evidence for (syntactic) VPHood (Kornfilt 1988) do not lead to conclusive results (cf. Göksel 2011 and references therein). See also Öztürk (2005) where a flatter structure is proposed as a result of the elimination of vP from the clause structure of Turkish. Further, so-called cases of 'noun incorporation' target agents/subjects as well as objects (Öztürk 2005, 2009a, Arslan-Kechriotis 2009, Kamali 2008a), such that there are SV units in syntax (but see Çağrı 2009 for an alternative view).

- g. *Assumption*: 'The order in presentational focus sentences (i.e. SOV) should be taken as the base because it is the most common pattern'.

Even if SOV order turns out to be the most frequent one, there is no a priori reason to assume that therefore the other orders are derived from this. See also point a. above.

- h. *Assumption*: 'Neutral' intonation should be taken as the 'default' case against which structure is defined.'

Syntactic generalizations have often been based on sentences with 'neutral intonation', which generally means that the immediate preverbal position is stressed. However, if a sentence is presented without a context, informants are likely to assume it is an all-new information sentence, and interpret it as if the immediately preverbal position is stressed. However, this might very well be the factor that makes a particular sentence unacceptable (a point raised in Özge and Bozşahin 2010, Göksel 2011). Along the same lines, Göksel and Tsiprakou (1996) raise the question whether weak crossover exists in Turkish at all, and

Özsoy (2009) notes that intonation ‘corrects’ weak crossover effects. All these lead to the conclusion that some generalizations about Turkish syntax do not hold, once intonation is taken into account. Some of these are the following: that in Turkish, ‘a *wh*-expression cannot be coreferential with a preceding pronominal’ (Göksel and Tsiplakou 1996),<sup>10</sup> that Turkish ‘does not have VP fronting’ (Öztürk 2005) or ‘forward gapping in the preverbal position’ (Kornfilt 2000), or that ‘gapping is a root phenomenon’ (İnce 2008). All of these generalizations are based on sentences where the immediately preverbal position is stressed.<sup>11</sup> Counterexamples to some of these generalizations are discussed in Hoffmann 1995, Özge and Bozşahin 2010 and Göksel 2011. The claim that stressing a particular position may itself be the source of ungrammaticality is supported by the fact that in most of these cases if the *verb* is stressed (or other ‘non-canonical’ prosodic factors are taken into account) the constructions used for the generalization in question become acceptable and therefore these generalizations are inadequate or incorrect.

Interim summary: The constituents verb, topic, focus, DO, S do not have designated syntactic positions. SOV is therefore not the ‘basic’ order. Moreover if a single position can have both A and A’ properties, this means that the grammar is not explicit about the role of positions, base or derived.

It has been proposed before that Turkish may have more than a single order (Bozşahin undated (SOV & OSV); Good and Yu 2005 (SOV & OVS)), but I will take a more radical path: All six word order permutations are base generated, none are derived.

## 6. Anchors of the clause

What would clause structure look like if there are no syntactic positions? What are the linchpins of a clause? There is no logical necessity for designated syntactic positions: a sentence can have free word order with nothing to bind the phrases together. However, following the observations on the asymmetry between the preverbal and postverbal areas, there seems to be some underlying structure for the clause in Turkish.

### 6.1 H\* and V

It is widely accepted (with a few putative counterexamples, see Göksel 2011 for an evaluation) that Turkish is ordered in terms of the position of H\* and the verb. H\* must precede the verb, and it can occur more or less anywhere if this condition holds (referred to as plasticity, see Özge and Bozşahin 2010).

In earlier work (Göksel and Tsiplakou 1996, Göksel 1998, 2001, Göksel and Özsoy 2000, 2003) this idea was encapsulated as follows:

- (23) a. The clause is made up of linear domains
- b. The postverbal area is flat
- c. The location between sentential stress and the verb is a ‘domain’

---

<sup>10</sup> I am grateful to Yuji Takano for drawing my attention to this.

<sup>11</sup> Note that quotation marks are used for highlighting the issues and none of the sentences in the quotations marks are actual quotes from the authors mentioned.

In particular, Göksel and Özsoy (2000, 2003) indicated that there were two relevant factors in the sentence: sentential stress and the verb.

(24) H\*.....V

[adapted from Göksel and Özsoy 2000]

This applies to a sentence like (25) as illustrated in (25'):

(25) Semra-ya ben gönder-miş-ti-m dün hediye-yi  
Semra-DAT I.NOM send-PRF-P-1Sg yesterday gift-ACC  
'I sent the gift to Semra yesterday.'

(25)' a. SEMRA'YA ben	göndermiştim dün hediye-yi
H*	V
b. Semra'ya BEN	göndermiştim dün hediye-yi
H*	V
c. Semra'ya ben	GÖNDERMİŞTİM dün hediye-yi
	H*
	V
d. *Semra'ya ben	göndermiştim DÜN hediye-yi
	V H*
e. *Semra'ya ben	göndermiştim dün HEDİYEYİ
	V H*

[adapted from Göksel *et al.* in press)]

When H\* follows the verb, the sentence is ungrammatical. As a natural consequence of the inability of H\* to follow the verb, there is only one position for it in verb-initial sentences, the verb itself.

(26) GÖNDERMİŞTİM hediye-yi Semraya ben dün  
H\*  
V

If, on the other hand, when the verb is at the end, any one of the constituents can be prosodically prominent (irrespective of the order of the preverbal constituents). Some examples are given below:

(27) a. Ben SEMRAYA hediye-yi dün göndermiştim.  
b. Semraya hediye-yi ben DÜN göndermiştim.  
c. Hediye-yi BEN Semraya dün göndermiştim.  
d. Ben HEDİYEYİ dün Semraya göndermiştim.  
e. Ben hediye-yi dün Semraya GÖNDERMİŞTİM.

## 6.2 Evidence for three domains

If we assume that H\* and V are ordered in this way and that there can be material between the two, we are, in effect, assuming something like the following:

(28) .....H\*.....V.....

Is there further evidence for such a structure? In order to understand this we look at another phenomenon, that of, non-local doubling (Göksel *et al.* 2013). Non-local doubling is revealing in that it is sensitive to both and only the factors that we mentioned above: H\* and V. It is sensitive to H\* because H\* marks the end of the domain from which doubling selects its source (i.e. any constituent or sub-constituent which occurs in the area between the beginning of a sentence and H\* can be doubled). Doubling is also sensitive to V, as the doubled constituent can only be placed in a position after V, even if this area includes other constituents.

- (29)  $\frac{\text{Search area for doubling}}{\text{H*.....V}} \frac{\text{Location of doubled items}}{\text{V.....}}$   
 [adapted from Göksel et al. in press]

Here are some examples based on (25):

- (30) a. Semraya dün HEDİYEYİ göndermişim *Semraya/dün/hediyeyi*  
 $\frac{\text{H* V}}{\text{.....}}$
- b. Semraya DÜN hediyeyi göndermişim *Semraya/dün/\*hediyeyi*  
 $\frac{\text{H*.....V}}{\text{.....}}$
- c. SEMRAYA dün hediyeyi göndermişim *Semraya/\*dün/\*hediyeyi*  
 $\frac{\text{H*.....V}}{\text{.....}}$
- d. \*Semraya DÜN hediyeyi DÜN göndermişim  
 $\frac{\text{H*.....V}}{\text{.....}}$
- e. \*Semraya dün hediyeyi HEDİYEYİ göndermişim.  
 $\frac{\text{H* V}}{\text{.....}}$

In (30a), a grammatical sentence, both of the conditions for grammaticality are satisfied: the doubled constituents come from the area falling under H\* or before, and they are placed in the area following the verb. The same applies to (30b), except that the doubling of a constituent (*hediyeyi* ‘the gift’) to the right of H\* renders the sentence ungrammatical. In (30c) there are two constituents to the right of H\* and before V, and the doubling of either of these results in ungrammaticality. (30d-e) show the ungrammaticality in the location of the doubled constituent: when a doubled constituent precedes the verb, the sentence is ungrammatical. The details of the analysis, which is cast in terms of the doubling of Phonological Phrases can be found in Göksel *et al.* (2013).

These observations support the structural constraints of the clause in Turkish, thereby providing some evidence for three positions in the clause (as indicated by the straight and dotted lines in the examples above (cf. Göksel 2011). These positions are:

- (31) a. up to and including H\*  
 b. between H\* and V  
 c. post V

### 6.3 The source of H\* and V

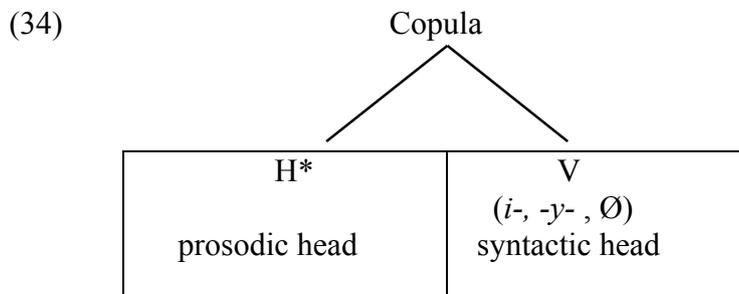
What is the source of these positions? In order to understand this, we have to zoom in on the clause and take a closer look at sentences where the *verb* itself has H\*. In Göksel (2010), following Sebüktekin (1984), I showed that a finite verbal complex which stands alone as a sentence does not have a unique position for stress. This becomes apparent in 3<sup>rd</sup> person plural forms, hence H\* can occur even inside words, and induces different interpretations:

- (32) a. Gel-ecek-LER-miş  
 come-FUT-3PL-EV  
 ‘They are supposed to come.’
- b. Gel-ECEK-ler-miş  
 come-FUT-3PL-EV  
 (i) ‘They were going to come.’  
 (ii) ‘They WERE going to come.’  
 [adapted from Göksel 2010 (10)-(11), based on Sebüktekin 1984]

In these examples, the position of H\* is dependent on the position of the ‘copula’ – expressed as Ø below.<sup>12</sup> The structure associated with the copula (Lees 1961, Inkelas 1999, Inkelas and Orgun 2003, *i.a.*) is that it is a trochee, prosodically a left prominent structure, as shown in (33a). However, as Sebüktekin (1984) notes, H\* (stress, in his terms) can occur further to the left, but crucially, it cannot occur to the right of the copula:

- (33) a. Gel-ecek-LER-Ø-miş.  
           H\* V
- b. Gel-ECEK-ler-Ø-miş.  
           H\* V
- c. \*Gel-ecek-ler-Ø-MİŞ  
           V H\*

I suggested recently in Göksel (2010) that this pattern is the same as in multi constituent sentences. What we have termed ‘postverbal’ therefore has to be replaced by ‘postcopular’, as the verb in question that is relevant to the structure of the clause is the copula. This, in effect, means that the copula has a segmental body, and stress to its left, and is an item with two anchors:<sup>13</sup>



<sup>12</sup> The position of the copula in the word is attested by its segmental variants *i-* and *-y-* (cf. Kornfilt 1996, Keleşir 2003, 2007, 2012, Enç 2004, Sağ 2012, *i.a.*)

<sup>13</sup> The present state of this proposal owes much to the discussions I had with Barış Kabak, whom I gratefully acknowledge. I am solely responsible for misinterpretations.



## 7. Multiple base generation

The consequences of the above are the following: The copula is the core of syntactic structure. It projects a trochee that creates three domains. The part between the two components may or may not be filled with lexical material (shown in (25') above). Arguments are freely generated in any of the positions. Predicates combine with their arguments non-arbitrarily where there are overt case markers. Otherwise (where there are two bare NPs) ambiguities may arise (see Göksel 1992, 1993, 2011), or they are possibly signaled by prosodic cues, i.e. the interpretation of an NP may depend on (among other things) whether it is:

- (a) focused or not
- (b) to the left or the right of a focused NP
- (c) in a downstepped area

The effects of H\* on interpretation are not well known, and the effects of other intonational items (boundary tones, pauses, phonological phrase boundaries) even less so (see Fidan 2002, Leto 2005, Kamali 2008a,b, 2009, 2010, Kan 2009, Güneş 2010, Özge and Bozşahin 2010, Göksel et al. 2009 for various studies). Thus overt case marking (where present) is not assigned by a head, nor is it assigned to a position. It simply signals how an argument is to be interpreted with respect to a predicate (Göksel 1993). No positions need to be derived, an advantage over other intonation sensitive frameworks which posit it as a lexical rule (Özge and Bozşahin 2010). Similarly, there is no need to specify word order rules in lexicon. How would this help explain the data in (1)-(2)? If positions are not set, then the asymmetries have to be explained in terms of intonational phenomena and their effects on interpretation. So if this analysis is on the right track, the domains have to be analysed in terms of their effects on interpretation.

## 8. Some caveats and conclusions

The idea that argument structure does not require syntactic adjacency is not novel (e.g. Kempson et al. 2001, Cann et al. 2004, Kathol 2000 i.a.). Nor is the idea that tones are lexically specified (Steedman 2000, Özge and Bozşahin 2010, Aboh 2010). However, the data here takes us beyond models incorporating precedence or linearity (Kathol 2000, Phillips 2003), or tones as lexical specifications. The proposal here is suggestive of a top-down model where intonational phenomena or tones form part of the core structure of functional clause-typing (cf. Liberman and Sag 1974, Sag and Liberman 1975, Liberman 1979, Ward and Hirschberg 1985, Ladd 1990, 1996, Pierrehumbert and Hirschberg 1990, Göksel et al. 2008, Göksel and Pöchtrager 2013, i.a.). The present proposal establishes the copula as the linchpin of the syntactic structure of Turkish, making intonational information inseparable from syntactic information. It thus calls for a model where the two can be expressed simultaneously. Thus look-ahead problems (as in e.g. Richards 2010) will not arise.

In the beginning of the paper I indicated that the proposal in this paper was simply one of the ways in which the unavailability of postverbal focus could be addressed. The analysis leaves some caveats: Non-finite clauses in Turkish have identical sequencing of H\* and V, however it is not clear whether these clauses have a copula. If they do not, then the lack of postverbal stress should have another source, which would, in turn, weaken the role of the copula. Secondly,

some dialects of Turkish (Bodrum, Muğla) may not have an overt body for the copula and availability for H\*. The implications for this are that root clauses might lack a copula in some dialects, which again weakens its power. Third, the idea of a split-trochee needs to be supported by other facts from the language. Finally, the cross-linguistic implications of the proposal need to be taken into account, which might, in turn, show other possibilities that can be pursued.

What is certain is that there seems to be no chance of understanding syntactic phenomena in Turkish, and possibly other languages, by disregarding the effects of prosody. The present proposal will no doubt take a new form in light of recent analyses on the finer details of the prosodic structure of Turkish (Kamali 2011, 2013, Güneş 2012a, b, c, Gürer 2013, Kabak 2013) and cross-linguistic investigations of the differences between asymmetric positions in typologically related and unrelated languages (Öztürk, in press).

### References

- Aboh, Enoch (2010) 'Information structuring begins with enumeration'. *Iberia* 2(1): 12-42.
- Alexiadou, Artemis and Elena Anagnostopoulou (1998) 'Parameterizing AGR: Word order, V-movement and EPP checking'. *NLLT* 16(3): 491-539.
- Arslan-Kechriotis, Z. Ceyda (2009) *Determiner Phrase and Case in Turkish; A Minimalist Account*. Saarbrücken: Verlag Dr. Müller.
- Aydiner, Pola (2006) The properties of the postverbal area with flat intonation in spoken Turkish. Paper presented at the Thirteenth International Conference on Turkish Linguistics. Uppsala University.
- Aygen(-Tosun), Gülşat (1999) Specificity and subject object positions: Scope interactions in Turkish. Ms., Boğaziçi University.
- Bozşahin, Cem (undated) 'Word order, word order flexibility and the lexicon. Ms., METU.
- \_\_\_\_\_(2000) 'Gapping and word order'. *Proceedings of the Tenth International Conference on Turkish Linguistics*, Boğaziçi University.
- Çağrı, İlhan (2009) 'Arguing against subject incorporation in Turkish relative clauses'. *Lingua* 119, 359-373.
- Cann, R., R. Kempson, L. Marten, M. Osuka and D. Swinbourne (2004) 'On the left and on the right'. In Adger, D., C. de Cat and G. Tsoulas (eds.) *Peripheries; Syntactic Edges and their Effects*, 19-48. Kluwer.
- Charette, Monik (2008) 'The vital role of the trochaic foot in explaining Turkish word endings'. *Lingua* 118, 46-65.
- Charette, Monik, Aslı Göksel and Serkan Şener (2007) Initial stress in morphologically complex words in Turkish: the interface of prosodic structure and 'phrase' structure. Ms.
- Enç, Mürvet (1991) 'The semantic of specificity'. *Linguistic Inquiry* 22/1. 1-25.
- \_\_\_\_\_(2004). 'Functional categories in Turkish'. In Aniko Csirmaz, Youngjoo Lee, & Mary Ann Walter (eds.), *Proceedings of the Workshop on Altaic Formal Linguistics I. MIT WPL* 46, 208-226.

- Erguvanlı, Emine Eser (1984) *The Function of Word Order in Turkish*. Berkeley: University of California Press.
- Fidan, Dilek (2002) Türkçe’de Ezgi Örüntüleri [Prosodic Patterns in Turkish]. Ankara University ms.
- Göksel, Aslı (1992) ‘Case and configurationality’, in Aslı Göksel and Elizabeth Parker (eds.), *SOAS Working Papers in Linguistics and Phonetics* 2, 147–172.
- \_\_\_\_ (1993) Levels of representation and argument structure in Turkish. Ph. D. diss., SOAS.
- \_\_\_\_ (1998) ‘Linearity, focus and the postverbal position in Turkish’, in Lars Johanson, Éva Ágnes Csató, Vanessa Locke, Astrid Menz, and Deborah Winterling (eds.), *The Mainz Meeting*, 85–106. Harrassowitz.
- \_\_\_\_ (2001) Asymmetries between the preverbal and postverbal positions in Turkish. Paper presented at Workshop on Word Order, Boğaziçi University.
- \_\_\_\_ (2010) ‘Focus in words with truth values’. *Iberia*.2/1: 89-112.
- \_\_\_\_ (2011) A phonosyntactic template for Turkish. In Andreas Nolda and Oliver Teuber (eds.) *Morphology and Syntax Multidimensional*. Mouton de Gruyter.
- Göksel, Aslı, Barış Kabak and Anthi Revithiadou (2013) ‘Prosodically constrained non-local doubling’. *The Linguistic Review*, 30/2:185-214.
- Göksel, Aslı, Meltem Keleşir and Aslı Üntak-Tarhan (2008) ‘The morphosyntactic implications of intonation as a clause-typer’, in Cedric Boeckx and Süleyman Ulutaş (eds.) *Proceedings of the 4th Workshop on Altaic in Formal Linguistics*, 39-50. Cambridge, MA: MIT Working Papers in Linguistics.
- Göksel, Aslı, and A. Sumru Özsoy (2000) ‘Is there a focus position in Turkish?’, in Aslı Göksel and Celia Kerslake (eds.), *Studies on Turkish and Turkic Languages*, 219-228 Wiesbaden: Harrassowitz.
- \_\_\_\_ (2003) *dA*: A focus/topic associated clitic in Turkish. *Lingua* 113 (11): 1143–1167.
- Göksel, Aslı, and A. Markus Pöchtrager (2013) The vocative and its kin, Marking function through prosody. Barbara Sonnenhauser & Patrizia Noel Aziz Hanna (eds.) *Vocative!*, 51-71. De Gruyter Mouton.
- Göksel, Aslı, and Stavroula Tsiplakou (1996) ‘Linear domains: Variations between Greek and Turkish’, in *Proceedings of the Sixteenth Annual Conference on Greek Linguistics*, 193-203 Thessaloniki: University of Thessaloniki Publications.
- Good, Jeff and Alan Yu (2005) ‘Morphosyntax of two Turkish subject pronominal paradigms’, in Lorie Heggie and Francisco Ordóñez (eds.) *Clitic and Affix Combinations; Theoretical Perspectives*, 315-341. Amsterdam: John Benjamins.
- Gračanin-Yüksek, Martina and Selçuk İşsever (2011) Movement of Bare objects in Turkish. *Dilbilim Araştırmaları* 22/1, 33-49.
- Grewendorf, Gunther and Joachim Sabel (1994) ‘Long scrambling and incorporation’. *LI* 25: 263-308.
- Güneş, Güliz (2010) The pragmatic and prosodic analysis of Sentence Topic in Turkish; An investigation based on real-life conversations. MA dissertation, Boğaziçi University.

- \_\_\_\_ (2012a) On the Role of Prosodic Constituency in Turkish. In Proceedings of WAFL8 MIT Working Papers in Linguistics Cambridge, MA.
- \_\_\_\_ (2012b) Limits of Prosody in Turkish: A Typological Perspective. University of Groningen Ms.
- \_\_\_\_ (2012c.) Prosodic parentheticals and prosodic integration: A case study in Turkish. University of Groningen Ms.
- Gürer, Aslı (2013) Prosody of contrastive focus and discourse new constituents in Turkish. Talk given at OCP10, Boğaziçi University, Istanbul, 16-19 January 2013.
- Hawkins, John A. (2009) 'An asymmetry between VO and OV languages: The ordering of obliques', in Greville G. Corbett and Michael Noonan (eds.) *Case and Grammatical Relations, Studies in Honor of Bernard Comrie*, 167-190. Amsterdam: John Benjamins.
- Hoffman, Beryl (1995) 'Integrating 'Free' Word order syntax and Information Structure'. *Proceedings of the 16<sup>th</sup> Conference on Computational Linguistics*. Copenhagen.
- \_\_\_\_ (1998) Word order, information structure and centering in Turkish. In: Marilyn A. Walker, Aravind K. Joshi and Ellen F. Prince (eds.) *Centering Theory in Discourse*, 253-271. Oxford: Clarendon Press.
- İkizoğlu, Didem (2010) Direct reported speech: Positioning and Relational work. MA diss. Boğaziçi University.
- İnce, Atakan (2008) 'On right node raising in Turkish'.
- Inkelas, Sharon (1996) 'The interaction of phrase and word rules in Turkish: An apparent paradox', *The Linguistic Review* 13, 193-217.
- \_\_\_\_ (1999) 'Exceptional-stress attracting suffixes in Turkish: representations vs the grammar'. In Kager, René, Harry van der Hulst and Wim Zonneveld (eds.), *The Prosody-Morphology Interface*. 134-187. Cambridge: Cambridge University Press.
- Inkelas, Sharon & Orgun, C. Orhan (2003) 'Turkish stress: a review', *Phonology* 20, 139-161.
- \_\_\_\_ (2004) 'Inmost wins in Turkish stress'. In Aniko Csirmaz, Youngjoo Lee & Mary Ann Walter (eds.). *Proceedings of the Workshop on Altaic Formal Linguistics I, MIT Working Papers in Linguistics*, 46, 137-148.
- İşsever, Selçuk (2003) 'Information structure in Turkish: the word order-prosody interface' *Lingua* 113 (11): 1025-1053.
- \_\_\_\_ (2007) 'Towards a unified account of clause initial scrambling in Turkish: feature analysis'. *Turkic Languages* 11/1: 93-123.
- \_\_\_\_ (2008) 'EPP driven scrambling and Turkish', in Tokusu Kurebito (ed.) *Ambiguity of Morphological and Syntactic Analyses*. Tokyo: Tokyo University of Foreign Studies (Research Institute for Languages of Asia and Africa [ILCAA]) Press. 27-41
- Jiménez-Fernández, Ángel and Selçuk İşsever (frth.) Deriving A/A'-effects in topic fronting: Intervention of focus and binding. To appear in *Generative Linguistics in Wrocław No. 2*, Joanna Blaszczak, Bożena Rozwadowska, and Wojciech Witkowski (eds.), *Current Issues in Generative Linguistics: Syntax, Semantics and Phonology*.
- Kabak, Barış (2013) The extent of contrasts and regularities in phonology. Talk given at OCP10, Boğaziçi University, Istanbul, 16-19 January 2013.

- Kabak, Barış & Anthi Revithiadou (2006) The phonology of clitic groups: Prosodic recursivity revisited. Paper presented at the 13th International Conference on Turkish Linguistics. Uppsala University.
- Kamali, Beste Can (2008a) Scope prosody correspondence and the Major Phrase in Turkish. Harvard University ms.
- \_\_\_\_ (2008b) Phases of incorporation and a three-way distinction for direct objects (in Turkish) Harvard University ms.
- \_\_\_\_ (2009) Types of topic in Turkish. Poster presented at Workshop on Prosody and Meaning, Universitat Pompeu Fabra, Barcelona, 17-18 Sept. 2009.
- \_\_\_\_ (2010) Scope of negation and phonological phrasing in Turkish. Harvard University ms.
- \_\_\_\_ (2011) Topics at the PF-interface of Turkish. PhD dissertation, Harvard University.
- \_\_\_\_ (2013) Acentless words and recursive phrasing: A case study in Turkish. Talk given at OCP10, Boğaziçi University, Istanbul, 16-19 January 2013.
- Kan, Seda (2009) Prosodic Domains and the syntax-prosody mapping in Turkish. MA diss. Boğaziçi University
- Karahan, Leyla (1991) *Türkçede Sözdizimi*. Ankara: Akçağ Yayınları.
- Kathol, Andreas (2000) *Linear Syntax*. OUP.
- Keleşir, Meltem (2000) Scope of negation: evidence from Turkish NPIs and quantifiers. *Proceedings of GLOW Asia II, September 1999 at Nanzan University*, Nagoya, Japan.
- \_\_\_\_ (2001) Topics in Turkish syntax: Clausal structure and scope. Ph. D. diss., Department of Linguistics, MIT.
- \_\_\_\_ (2007) 'Copular forms in Turkish, Turkmen and Nogay'. In Meltem Keleşir & Balkız Öztürk (eds.), *Proceedings of the 2nd Workshop on Altaic Formal Linguistics*. Distributed by MIT Working Papers in Linguistics.
- \_\_\_\_ (2009) The scope of negation in Turkish. Boğaziçi University ms.
- \_\_\_\_ (2012) The presence/absence of tense and evidentiality in nominalized complement clauses: some insights from three Turkic languages, Ms.
- Kempson, Ruth M., Wilfried Meyer-Viol and Dov Gabbay (2001). *Dynamic Syntax: The Flow of Language Understanding*. Blackwell.
- Kennelly, Sarah (2003) The implications of quantification on the role of focus in discourse structure. *Lingua* 113 (11): 1055–1088.
- Kesen, Yasemin (2010) Intervention effects in simple wh-questions in Turkish. MA diss., Boğaziçi University.
- Kiss, Katalin É. (2008) Free word order, (non)configurationality, and phases. *Linguistic Inquiry* 39 (3): 441-475.
- Kılıçaslan, Yılmaz (2004) Syntax of information structure in Turkish. *Linguistics* 42: 717–65.
- Kornfilt, Jaklin (1988) 'NP-deletion and case marking in Turkish', in Sabri Koç (ed.), *Studies on Turkish Linguistics*, 187-215 Ankara: Middle East Technical University Press.
- \_\_\_\_ (1996) 'On copular clitic forms in Turkish', in Artemis Alexiadou, Nina Fuhrkop, P. Law & S. Löhken (eds.), *ZAS Papers in Linguistics* 6, 96-114. Berlin: Zentrum für Allgemeine Sprachwissenschaft.
- \_\_\_\_ (2000) 'Directionality of identical verb deletion in Turkish', in Sandra Chung and Jim McCloskey (eds.) *An Electronic Festschrift for Jorge Hankamer*.
- \_\_\_\_ (2005) 'Asymmetries between pre-verbal and post-verbal scrambling in Turkish', in Joachim Sabel and Mamoru Saito (eds.), *The Free Word order*

- Phenomenon, Its Syntactic Sources and Diversity*, 163-179. Berlin, New York: Mouton de Gruyter.
- Kural, Murat (1993) 'V-to(I-to)-C in Turkish'. *UCLA Occasional Papers in Linguistics*, 11:17-54.
- \_\_\_\_ (1994) Properties of scrambling in Turkish. UCLA, ms.
- \_\_\_\_ (1997) Postverbal constituents in Turkish and the Linear Correspondence Axiom. *LI* 28: 498–521.
- Ladd, D. Robert (1990) Intonation: emotion vs. grammar (Review of Bolinger, Dwight (1989) *Intonation and its Uses*, Palo Alto: Stanford University Press). *Language* 66: 806-816.
- \_\_\_\_ (1996) *Intonational Phonology*. Cambridge: Cambridge University Press.
- Lees, Robert B. 1961. *The Phonology of Modern Standard Turkish*. Indiana University Uralic and Altaic Series. Bloomington: Indiana University Publications.
- Leto, Claudia (2005) Frageintonation im Türkischen. MA diss., University of Cologne.
- Liberman, Mark (1979) *The Intonational System of English*. New York: Garland Publishing.
- Liberman, Mark and Ivan Sag (1974) Prosodic form and discourse function. *Papers from the Tenth Annual Meeting of the Chicago Linguistic Society*, 416-427.
- Meral, Hasan Mesut (2010) Resumptives in Turkish. PhD dissertation, Boğaziçi University.
- Miyagawa, Shigeru (1997) 'Against optional scrambling'. *Linguistic Inquiry* 28: 1–25.
- Özge, Umut (2003) A tune-based account of Turkish information-structure. MSc dissertation, METU.
- \_\_\_\_ (2010) Grammar and Information, A study on Turkish Indefinites. PhD diss. METU
- Özge, Umut & Cem Bozşahin (2010) 'Intonation in the grammar of Turkish', *Lingua*, 120, 132-175.
- Özsoy, A. Sumru (2005) Topic, focus, multiple specifiers, multiple spell-out. Paper presented at the Mediterranean Syntax Meeting, University of the Aegean, Rhodes.
- \_\_\_\_ (2009) 'Turkish as a (non)-wh-in.situ language', in Éva Ágnes Csató, Gunvald Ims, Joakim Parslow, Finn Thiesen, Emel Türker (eds.) *Turcological Letters to Bernt Brendemoen*, 221-232. Oslo: Novus Forlag.
- Öztürk, Balkız (2005) *Case, Referentiality and Phrase structure*. Amsterdam: John Benjamins.
- \_\_\_\_ (2009a) 'Incorporating agents'. *Lingua* 119/2: 358-374.
- \_\_\_\_ (2009b) Non-Configurationality: Free Word Order and Argument Drop in Turkish. *The Limits of Syntactic Variation*, M. Theresa Biberauer (ed.), Linguistik Aktuell, Amsterdam: John Benjamins.

- \_\_\_\_ (in press) ‘Postverbal constituents in SOV languages’, to be published in Michelle Sheehan and M. Theresa Biberauer (eds.) *Theoretical Approaches to Disharmonic Word Order*. OUP.
- Phillips, Colin (2003) ‘Linear order and constituency’. *LI* 34: 37-90
- Pierrehumbert, Janet (1980) *The Phonology and Phonetics of English Intonation*. Ph. D. diss., MIT.
- Pierrehumbert, Janet and Julia Hirschberg (1990) ‘The meaning of intonational contours in the interpretation of discourse’, in Philip R. Cohen, J. Morgan, and Martha E. Pollack (eds.) *Intentions in Communication*, 271-311. Cambridge, MA: MIT Press.
- Richards, Norvin (2010) *Uttering Trees*. MIT Press.
- Sag, Ivan A. and Mark Liberman (1975) The intonational disambiguation of indirect speech acts. *Papers from the Eleventh Annual Meeting of the Chicago Linguistic Society*, 487-497.
- Sağ, Yağmur (2012) ‘The nominalized complements in two dialects of Turkish, evidence from the copula.’ Proceedings of WAFL 8, MIT Working Papers in Linguistics (MITWPL).
- Sebüktekin, Hikmet. (1984) ‘Turkish word stress: Some observations’. In Eser Erguvanlı-Taylan & Ayhan Aksu-Koç (eds.), *Proceedings of the Turkish Linguistics Conference*. 295-307. Istanbul: Boğaziçi University Publications,
- Sezer, Engin (2006) Defocusing and discourse linking in Turkish. Talk presented at the 13th International Turkish Linguistics Conference, Uppsala, 16–20 August 2006.
- Shlonsky, Ur, (1997) *Clause Structure and Word Order in Hebrew and Arabic*. OUP
- Steedman, Mark (2000) ‘Information structure and the syntax-phonology interface’. *LI* 31; 649-689.
- Şener, Serkan (2010) (Non-)peripheral matters in Turkish syntax. PhD dissertation, University of Connecticut.
- Takano, Yuji (2006) Making rightward scrambling possible. Kinjo Gakuin University, ms.
- Temürcü, Ceyhan (2005) ‘The interaction of syntax and discourse in word order variability: Data from Turkish’, in Güray König, I. Özyıldırım, D. Aydın, and A. Altan (eds.), *Dilbilim ve Uygulamaları*, 123–159. Istanbul: Multilingual.
- Turan, Ümit, D. (1998) ‘Ranking forward-looking centers in Turkish: Universal and language-specific properties’, in Marilyn A. Walker, Aravind K. Joshi and Ellen F. Prince (eds.) *Centering Theory in Discourse*, 253-271. Oxford: Clarendon Press.
- Uygun, Dilek (2006) Scrambling bare singular nominal objects in Turkish. Talk presented at the 13th International Turkish Linguistics Conference, Uppsala, 16–20 August 2006.
- Ward, Gregory, and Julia Hirschberg (1985) ‘Implicating uncertainty: The pragmatics of Fall-Rise intonation’. *Language* 61: 747-776.