Notes on focus projection in Turkish*

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The immediately preverbal position has a distinguished status in Turkish. Among the alternative accentuations of a basic subject-object-verb sentence, the one with the most prominent accent on the direct object is argued to be maximally general in contextual felicity. For instance while (1a) can answer any of the questions *What happened?*, *What did Aynur do?* and *What did Aynur eat?*, shifting the prominence away from the immediately preverbal *kek-i* ('the cake-Acc') as in (1b/c) presupposes a somewhat more specific context.[1]

(1a)   *Aynur <u>kek-i</u>*   *ye-di.*
     A.   cake-Acc   eat-Pst
     'Aynur ate the cake.'

(1b)   *<u>Aynur</u> kek-i*   *ye-di.*
     A.   cake-Acc   eat-Pst
     'Aynur ate the cake.'

(1c)   *Aynur kek-i*   *<u>ye-di</u>.*
     A.   cake-Acc   eat-Pst
     'Aynur ate the cake.'

A similar interplay between accentuation and contextual specificity, usually discussed under the name of "focus projection", has been observed in many other languages, since the phenomenon was first introduced to generative linguistics by Chomsky (1972).[2] Chomsky's analysis, aimed as a "first approximation", has set the theoretical frame for most of the subsequent work. Chomsky (1972) assumes that the "semantic representation" of a linguistic expression, besides other information, incorporates a partitioning of the meaning into focus and presupposition,[3] and that the contribution of accentuation is to this dimension of meaning. He argues for instance that "[t]he semantic representation of [(2)] must indicate, in some manner,

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1 In examples, italic face designates the item that bears the final prominent accent (aka. nuclear accent) of the sentence. Though we do not designate the pre-nuclear accents and post-nuclear deaccenting, the nuclear accent, by definition, should be understood as the location of the final fall in the utterance.

2 See von Stechow and Uhmann 1986, Winkler 1996, Gussenhoven 1999 for reviews on "focus projection". See Keijsper 1985 for a review of Russian and Praguean approaches to the phenomenon.

3 Various semantic/pragmatic notions that belong to the sentential level such as focus, presupposition, topic, comment, given/new information and so on are usually collected under the term "information structure". There are numerous accounts of information structure and related concepts. Steedman and Kruijff-Korbayova (2003) provide a bird's eye view of the field.

that John is the FOCUS of the sentence and that the sentence expresses the PRESUP-
POSITION that someone writes poetry." (89)

(2)   It isn't JOHN who writes poetry.

On the basis of some previous discussion in the same paper (p. 67) suggesting that "se-
mantic representation" is that part of the grammar which represents the "'purely gram-
matical' component of meaning", the following hypothesis can be attributed to Chomsky
(1972).

(3)   *Grammaticality of Information Structure*:
         The information structure (see note 3) of a linguistic expression is part of its
         grammatically specified meaning.

It is this insight that has led to numerous studies which take information structural
notions like topic and focus as grammatical primitives. For instance, the standard "Y-model"
theorizing, following Jackendoff (1972), takes focus as a syntactic feature which percolates
through a syntactic level of representation, culminating in interpretive and phonetic effects
at the interfaces (Selkirk 1984, Rochemont and Culicover 1990). Or in more recent proposals,
information structural categories are taken to head phrasal projec-tions (Rizzi 1997).

Another influential idea of Chomsky (1972) is the notion of "normal intonation". The
idea is that there are certain grammatical processes, like the Nuclear Stress Rule, that op-
erate on surface structures (or some other syntactic representation) and assign a center of
intonation (i.e. nuclear accent) to the given expression. Chomsky (1972) also suggests that
this context-independent, structure-driven assignment operation, which results in "nor-
mal" or "neutral" intonation, should be distinguished from discourse driven processes re-
sponsible for the assignment of "expressive or contrastive" intonation.[4]

This of course cannot be all there is to the notion of "neutral intonation". One also
needs to address the empirical issue of deciding on what counts as "neutral intonation";
otherwise, saying that the "neutral intonation" is the one assigned by the grammatical
rules of accent assignment would lead to circularity. There are basically two types of cri-
teria employed in deciding on the "neutral intonation" for a particular expression. The
first is contextual in character:

(4)   *The Contextual Criterion of "Neutral Intonation"*:
         An utterance with a "neutral intonation" is the one which can be uttered in an
         out-of-the-blue (or "null") context as a discourse initiator, or as an answer to
         the question *What happened?*

The criterion, stated as such, is highly vague. Whether there can be a more precise
definition of it, or whether there is a truly out-of-the-blue or "null" context has been a
matter of some debate (Ladd 1996). As we will not make any essential use of (4), we will

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4 This notion of "normal/neutral intonation" as opposed to "contrastive intonation" has been
  criticized on various grounds, most notably by Bolinger 1972, Schmerling 1976, Ladd 1980,
  Gussenhoven 1984.

not be concerned with this important issue here.[5] It is worth noting however that any account making an essential use of the criterion should be concerned with the debate.

The second type of criterion for "neutral intonation" is structural in character:

(5)   *The Structural/Scopal Criterion of "Neutral Intonation":*
      The "neutral intonation" of an utterance is the one which allows a "wide-focus"
      reading; or, equivalently, it is the one which renders focus projection possible.

The special status of the immediately preverbal position mentioned in the opening paragraph of the paper comes into play in this connection. It is taken to be the unmarked position of the sentential stress, where the unmarkedness in question is construed either along (4) (see e.g. İşsever 2003), or (5) (see e.g. Göksel and Özsoy 2003). Now we will see some examples that do not fit into this characterization.

Imagine a couple at their breakfast table, and consider the following sentences as uttered by one of the parties as a dialog initiator.

(6a)   *Ali*   *Aynur-u*   <u>*aldat-ıyor-muş*</u>.
       A.   A.-Acc   cheat-Prg-Ev.Cop
       'Ali has been cheating on Aynur.'

(6b)   *Ali*   *karı-sın-ı*   <u>*aldat-ıyor-muş*</u>.
       A.   wife-Poss.3sg-Acc   cheat-Prg-Ev.Cop
       'Ali has been cheating on his wife.'

(6c)   *Hükümet*   *alkollü içecek-ler-den*   *al-ın-an*
       government   alcoholic beverage-Pl-Abl   take-Pass-Rel
       vergi-yi   <u>*düşür-ecek-miş*</u>.
       tax-Acc   lower-Fut-Ev.Cop
       'The government will lower the taxes on alcoholic beverages.'

(6d)   *Polis*   *Ali-nin*   *son*   *kitab-ın-ı*   <u>*topla-t-ıyor-muş*</u>.
       police   A.-Gen   last   book-Poss.3sg-Acc   collect-Cstv-Prg-Ev.Cop
       'The police has been collecting Ali's last book (due to a ban).'

The interest of these utterances is that they should be considered "neutral" under both criteria of "neutrality", and yet they do not have their intonational center on the immediately preverbal item.[6]

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5 Although we cannot think of any argument apart from mere reflection to support it, our contention is that the level of contextual specificity prior to an utterance - or more precisely, the amount of information that is held by the conversational parties to be shared among them at a given time - is a matter of degree, and can hardly be "null". See Johnson-Laird 1982 for some relevant discussion, especially the parts on later Wittgenstein.

6 For instance, (6a) does not have to be construed as being in contrast with (i) or as an answer to (ii).

    (i)   *Ali Aynur-u*   *aldat-mı-yor-muş*.
        A. A.-Acc   cheat-Neg-Prg-Ev.Cop
        'Ali has not been cheating on Aynur.'

    (ii) *Ali Aynur-u*   *ne yap-ıyor-muş?*
        A. A.-Acc what   do-Prg-Ev.Cop
        'What has Ali been doing to Aynur?'

Furthermore, their immediately preverbal stressed versions require somewhat more specific contexts. For instance,

(7)   *Ali*   <u>*Aynu-ru*</u>   *aldat-ıyor-muş.*
      A.   A.-Acc   cheat-Prg-Ev.Cop
      'Ali has been cheating on Aynur.'

presupposes a contextual background like *Contrary to our guess, it turned out that it was Aynur that Ali was cheating on, not Ayşe.*

It should be noted that the omission of the evidential *-mIş* somehow degrades the naturalness of the utterances as dialog initiators, but not to the level of infelicity. The point we will make is independent of the effect of the evidential marker anyway. The contribution of the evidential marker can be eliminated as follows. Consider the following minimal variant of (6a):

(8)   *Ali*   *Aynur-u*   <u>*gör-üyor-muş.*</u>
      A.   A.-Acc   see-Prg-Ev.Cop
      'Ali has been seeing Aynur.'

This utterance forces us to accommodate a contextual background where whether Ali was seeing Aynur or not was an issue at some point prior to the conversation. Recall that we were not forced to accommodate a similar background in (6a). That utterance is quite felicitous even if we hold the assumption that whether Ali was cheating on Aynur has never been a topic of discussion or interest in the entire history of the couple. This simply shows that one part of the trick is about the difference between *aldat-* 'cheat on' and *gör-* 'see'. This observation suggests that there cannot be a purely syntactic account of neutral accentuation and/or information structure in Turkish, unless one is willing to claim that there exists a relevant syntactic difference between these two verbs that will explain the difference in their information structural behavior.

Let us go on with a difference between *aldat-* 'cheat on' and *gör-* 'see' that seems to be relevant in the present context. First some general remarks are in order. The notion of focus (or more generally "informativity") is related to the notion of "contrast", which is, by definition, related to the presence of alternatives; there is no meaning to the term "contrast" without the integral notion of "alternative". Finally, we think, all this can and should be grounded on the information theoretic notion of "entropy" (Shannon 1948, Dretske 1981): the informativity of an event is a function of its capacity to reduce uncertainty in the system within which it is interpreted. Accents are signals of informativity. They instruct the hearer to adjust her mental model of the discourse to reduce the present uncertainty by making use of whatever is in the scope of the accent. We will return below to what we mean by "the scope of an accent".

In an information-theoretic perspective, the difference between (6a) and (8) can potentially be analyzed as follows. The verb *aldat-* 'cheat on', in comparison to *gör-* 'see', is richer with respect to the alternatives it affords in the intended context of the examples. At the point it is encountered, namely after two human referents were established in the discourse model, it is picked up from a list of possible relations between human beings that are newsworthy to assert. On the other hand, at the same slot, *gör-* 'see' does not induce such a set of newsworthy items. The alternatives it contrasts with are presumably

restricted to a few perception predicates, where the contrast does not make much sense without the support of some specific contextual background. At this point we suggest that the hearer is compelled to interpret the contrast to be on the polarity – that is, a he does/doesn't type of contrast, rather than the verb's lexical content. This in turn leads one to accommodate the background assumption that whether Ali sees Aynur was an issue under discussion or of interest.

The significance of having the evidential suffix -mIş comes into light in this connection. One, it facilitates a "news" context by virtue of its semantics. Two, under a post copular clitic analysis (Kornfilt 1996), the evidential provides "space" for the accent to fall on the lexical content rather than on the copula, where an accent on the latter signals a polarity contrast.[7]

Before moving on, let us discuss an alternative appraisal of the data in (6). Mine Nakipoğlu (p.c.) suggests that the "non-canonical" stress pattern of the utterances like those in (6) can be explained by the model offered in Nakipoğlu 2009, where it is argued that the accusative case marking, in interaction with sentential accentuation, has some well-defined information structural properties in Turkish. In particular, Nakipoğlu (2009) claims that accented accusative marked definite DPs signal "discourse-new" but "hearer-inferable" information, while unaccented accusative definite DPs signal "discourse-old" and "hearer-old" information. We are concerned here with the second part of the generalization, therefore we need to get clear about the notions "discourse-old" and "hearer old". Nakipoğlu (2009) discusses such class of definites through the following example (her ex. 36):

(9) A: *Duy-dun*   *mu?*
          hear-Pst.2sg   Qpart
          'Have you heard?'

     B: *Ne*   *ol-du?*
          what   happen-Pst.3sg
          'What happened?'

     A: i.   *Orhan Pamuk*   <u>*Nobel-i*</u>   *al-dı.*
                O. P.   Nobel-Acc   receive-Pst.3sg
                'Orhan Pamuk received the Nobel Prize.'
          ii.   *Orhan Pamuk Nobel-i <u>aldı</u>.*

Her comments are as follows:

> In both (Ai) and (Aii) Nobel-ACC ('the Nobel Prize'), being accusative marked is *hearer-nonnew*, that is what it refers to is hearer-inferable in (i) and hearer-old in (ii). The stress on the accusative marked DP in (Ai) however, renders the entity discourse-new suggesting that A and B had not talked about Orhan Pamuk's nomination to the Nobel Literature Prize, or his potential to receive the prize before. An unaccented accu-

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7 See Nakipoğlu 2009: 1277, nt. 39 for a similar discussion.

sative marked DP in (Aii), however, renders not only the definite but the proposition presupposed by the sentence evoked and puts it in the common ground. Hence with an unaccented accusative marked DP and pitch accent on the verb what the sentence conveys is that Interlocutors A and B had already talked about Pamuk's nomination to the Prize, his status among the other nominees, etc. Furthermore, it implies A's assumption that B recognizes A's comments made earlier about Pamuk's being the strongest nominee to receive the prize, and his belief that Pamuk would be the laureate.

As we remarked above, the felicity of the utterances in (6) as discourse initiators does not require that whether their asserted content holds or not was (or is tacitly assumed to be) under discussion some time prior to the utterance. We need to be especially careful about (6c). Nakipoğlu's (2009) point makes perfect sense if one assumes that the context involves a conservative government, so that the parties of the conversation tacitly hold in their common ground that lowering or raising the tax on alcoholic beverages is an issue. However, the crucial fact is that (6c) remains felicitous even when taken to be speaking about a non-conservative government. Likewise, the felicity of (6d) does not count on Ali's being a politically radical or controversial writer. The utterance may well be quite unexpected, or even shocking for the hearer, in which case we have a completely different situation vis-a-vis Nakipoğlu's Nobel Prize example, but still have an unaccented accusative definite. We think these considerations at least raise some doubts as to whether Nakipoğlu's (2009) model can straightforwardly capture the data in (6) without any amendments. On the other hand, it would also be interesting to see if the present account can be construed as a mechanism through which DPs get their discourse and hearer statuses in Nakipoğlu's (2009) model.

Let us turn to the notion of "scope of an accent", the grammatical aspect of information structure. Consider the minimal pair (10).

(10a)　*Ali*　*Aynur-u*　　　*aldat-ıyor-muş.*
　　　　A.　　A.-Acc　　　cheat-Prg-Ev.Cop
　　　　'Ali has been cheating on Aynur.'

(10b)　*Ali*　*karı-sın-ı*　　　*aldat-ıyor-muş.*
　　　　A.　　wife-Poss.3sg-Acc　cheat-Prg-Ev.Cop
　　　　'Ali has been cheating on his wife.'

The interest of this pair is that (10b) is still felicitous as a dialog initiator, in contrast to (10a), which, we argued above, requires some amount of contextual support. Why is then shifting the accent the same way in very similar sentences alters their contextual presuppositions in such a different way?

We claim that the answer lies in a difference between the chunks *Aynur'u aldatıyor* 'cheating on Aynur' vs. *karısını aldatıyor* 'cheating on his wife'. Among these two chunks, only the latter expresses a general quality or property of individuals. The predicate *karısını aldatıyor* can potentially apply to any married man, but this is not so for *Aynur'u aldatıyor*. We are unable for the moment to give any more substance then this to our use of the term "general", and have to assume that what we mean by it is sufficiently

clear, at least intuitively. Being a generally applicable quality *karısını aldatıyor* restricts a set of likewise qualities, and gives rise accordingly to a "stative" predication (see below). The rather specific predicate *Aynur'u aldatıyor* on the other hand diverts the hearer's attention to the activity or the event described by the verb phrase, resulting in an "eventive" predication.

Let us further clarify what we mean by the "stative" vs. "eventive" predication. We argued above that (10a) induces a contextual background like *Contrary to our guess, it turned out that it was Aynur that Ali was cheating on, not Ayşe.* Call this Case 1. However, there is also another type of background, which pops up in one's mind when *Aynur'u aldatmak* 'cheating on Aynur' is taken as a single information unit. Call this Case 2. (In Case 2 the focus of the utterance encompasses the entire verb phrase; whereas in Case 1 the focus of the utterance was narrowly encompassing only the direct object *Aynur'u*.) This latter type of interpretation can be characterized by the context: *What was that noise next room last night? Any idea?* In such a context, we can "take up" the message as introducing an individual (namely Ali) to our mental model of the situation, and then attributing to it a certain type of activity, which, by world knowledge, explains the source of the noise in question.

We think another relevant difference between the utterances in (6) and (10) is in the way they are organized into informational units. Comparing (6b) and (10b), we can argue that the former conveys its message in three steps, whereas the latter does this in two steps. (6b) successively introduces two discourse referents and then at the third step specifies the relation between them. (10b) on the other hand first introduces a discourse referent, and then specifies a property of that referent. The same applies to (6a) and (10a). The only difference is that in (10a), in contrast to (6a), *Aynur* is informationally subordinated to an action attributed to Ali; its denotation no longer functions as an individual but rather as part of the description of an action.

The only thing that concerns the grammar proper in this picture, we claim, is that the accent on the immediately pre-verbal item can take under its scope either the object or the OV constituent *Aynur'u aldat* and *karısı-nı aldat*. Now we turn to some evidence from Turkish that the limits on what can go under the scope of a single accent is a grammatical phenomenon. Consider (11).

(11a) *Ali   nerede?*
       A.   where
       'Where is Ali?'

(11b) <u>*Bahçe-de*</u>   *çalış-ıyor.*
       garden-Loc   work-Prg.3sg
       'He is gardening.'

In the absence of more specific contextual background, we are forced to interpret (11b) as *He is doing some gardening.* Ali may not be doing some other thing, say practicing violin, in the garden. In other words, it is only when *bahçe-de* ('garden-Loc') is taken as an integral part of a complex predicate that we have a unit that can go under the scope of a single accent. If *bahçe-de* were intended as a locative adjunct, the appropriate form would be:

(12)   *Bahçe-de*   *çalış-ıyor.*
       garden-Loc   work-Prg.3sg
       'He is working in the garden.'

where each unit has its own accent.[8] The same thing applies for the other types of adjuncts as well.[9]

Let us go on with some other constructions that impose grammatical limits on the scopes of accents. Subjects of transitive verbs are a case in point. Göksel and Özsoy (2003) claim that focus cannot project from subjects. This view is contested in Özge and Bozşahin 2010 on the basis of data similar to (13) and (14) below.

(13a) *Bisiklet*   *nere-de?*
       bike   where-Loc
       'Where is the bike?'

(13b) *Ahmet*   *biniyor.*
       A.   ride-Prg
       'Ahmet is riding it.'

(14a) *Kitab-ım-ı*   *gördün*   *mü?*
       book-Poss.1sg-Acc   see-Pst.2sg   Qpart
       'Have you seen my book?'

(14b) *Aynur*   *okuyor.*
       A.   read-Prg
       'Aynur is reading it.'

Both (13b) and (14b) are quite natural responses to their corresponding questions, suggesting that the accent on a subject can take in its scope the subject-verb constituent. The picture is sharply altered when the verbs are replaced with some others as follows.

(15a) *Bisiklet*   *nere-de?*
       bike   where-Loc
       'Where is the bike?'

(15b) #*Ahmet*   *boyu-yor.*
       A.   paint-Prg
       'Ahmet is painting it.'

(16a) *Kitab-ım-ı*   *gör-dün mü?*
       book-Poss.1sg-Acc   see-Pst.2sg   Qpart
       'Have you seen my book?'

(16b) #*Aynur*   *yak-ıyor.*
       A.   burn-Prg
       'Aynur is burning it.'

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8 We again do not designate pre-nuclear accents.
9 That focus cannot project from locative adjuncts is first observed in İşsever 2006.

Once again we think that the source of this asymmetry should be sought in the informational properties of the particular verbs involved. Here we use "informational" in the information-theoretic sense that we briefly discussed above, namely their potential to reduce uncertainty. The verbs in examples (13b) and (14b) are highly predictable given the questions mentioning objects that these verbs go together quite frequently; bikes are for riding, as books are for reading. These verbs simply do not reduce much uncertainty. The verbs in (15) and (16) are quite unpredictable, and therefore has high information content.

It is crucial to note that the information-theoretic significance of the verbs in these latter examples is somewhat different from those we have seen earlier, namely *aldat-* 'cheat' vs. *gör-* 'see'. There, the issue with *gör-* 'see' was not that it was highly predictable, in the sense that *bin-* 'ride' is in (13). Rather *gör-* 'see' has a relatively small number of alternatives in that particular context, namely possible relations among human individuals. It appears apt to call such words "narrow cohort" items, to borrow some terminology from lexical access literature.[10]

The cases (13b) and (14b), where focus projection from an S to SV was possible, can be considered under what Lambrecht and Michaelis (1998: 499) and Jacobs (1999) call "integration into an informational unit". The notion of "integration" describes any situation where an unaccented item is informationally highlighted by virtue of being adjacent to an accented item. By this token "integration" is a term applicable to projection from S to SV and O to OV alike. However, there is an asymmetry between these two types of projection. The asymmetry is that whether focus projects from O to OV is never contingent on informational notions, whereas whether it does from S to SV is, as we observed in examples (15) and (16). All this suggests that we are faced with a grammatical constraint blocking projection from S to SV, as Göksel and Özsoy (2003) is right in observing. This constraint is overridden when the V is informationally too weak to get accented. For an item to be informationally weak, it must either be highly predictable, or it must be a "narrow cohort" item. In either case the amount of uncertainty it eliminates is low.

Another place where there seems to be a grammatical constraint on focus projection is genitive possessive constructions. Consider the following example.

(17a) *Salon-un*   *orta-sı-nda-ki*   *şey*   *ne?*
       living room-Gen   middle-Poss.3sg-Loc-Rel   thing   what
       'What's that thing in the living room?'

(17b) *Baba-m-ın*   *bavul-u.*
       father-Poss.1sg-Gen.3sg suitcase-Poss.3sg
       'My father's suitcase.'

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10 A simple test for whether two verbs belong to the same cohort in the context of a particular object may look like this.

(i)   Q: Have you X'ed Z?
        A: No, I Y'ed it.

For an NP Z, and verbs X and Y, if the above exchange is sound, then X and Y belong to the same cohort in the context of Z.

(17c)   _Baba-m-ın_   _bavul-u._
        father-Poss.1sg-Gen.3sg   suitcase-Poss.3sg
        'My father's suitcase.'

(17c) but not (17b) has a necessarily narrow focus on the possessor, hence it pre-supposes a context where suitcases belonging to some other individuals are involved. One thing that distinguishes the behavior of genitive-possessive constructions from the cases above is that no matter what the informational status of the possessee, a possessor ac-cented genitive-possessive construction (like 17c) has always a narrow focus on the pos-sessor. We do not know whether this generalization holds for a large number of lexical items, and we do not have any explanation as to why this type of blocking of focus pro-jection differs from S to SV type in admitting no exceptions.

In this note we reviewed data that challenge a purely structural account of "neutral/normal" intonation of a declarative utterance in Turkish. We outlined some information theoretic constraints that are thought to be effective in determining the "normal" intona-tion pattern of an utterance. We also argued that structural concerns cannot be totally left out of consideration.

References

Bolinger, D. 1972. Accent is predictable (if you're a mind reader). _Language_ 48, 633– 644.

Chomsky, N. 1972. Deep structure, surface structure, and semantic interpretation. In: Chomsky, N. _Studies on Semantics in Generative Grammar_. The Hague, Netherlands: Mouton. 62–119.

Dretske, F. 1981. _Knowledge and the Flow of Information_. Cambridge, MA: MIT Press.

Göksel, A. & Özsoy, S. 2003. dA: A focus/topic associated clitic in Turkish. _Lingua_ 113, 1143–1167.

Gussenhoven, C. 1984. _On the Grammar and Semantics of Sentence Accent_. Dordrecht: Foris.

Gussenhoven, C. 1999. On the limits of focus projection in English. In: Bosch, P. & van der Sandt, R. (eds) _Focus: Linguistic, Cognitive and Computational Perspectives_. Cambridge: Cambridge University Press. 43–55.

İşsever, S. 2003. Information structure in Turkish: The word order-prosody interface. _Lingua_ 113, 1025–1053.

İşsever, S. 2006. The NSR and focus projection in Turkish. In: Yağcıoğlu, S. & Değer, A. C. (eds.) _Advances in Turkish Linguistics: Proceedings of the 12th International Conference on Turkish Linguistics_. İzmir: Dokuz Eylül University Press. 421–435

Jackendoff, R. S. 1972. _Semantic Interpretation in Generative Grammar_. Cambridge, MA: MIT Press.

Jacobs, J. 1999. Informational autonomy. In: Bosch, P. & van der Sandt, R. (eds) _Focus: Linguistic, Cognitive and Computational Perspectives_. Cambridge: Cambridge University Press. 56–81.

Johnson-Laird, P. N. 1982. Formal semantics and the psychology of meaning. In: Peters, S. & Saarinen, E. (eds) _Processes, Beliefs and Questions_. Dordrecht: Reidel. 1–68.

Keijsper, C. E. 1985. *Information Structure with examples from Russian, English and Dutch.* Amsterdam: Rodopi.

Kornfilt, J. 1996. On some copular clitics in Turkish. In: Alexiadou, A. & Fuhrop, N. et al. (eds.) *ZAS Papers in Linguistics* Vol. 6. Berlin: Zentrum für Allgemeine Sprachwissenschaft. 96–114.

Ladd, D. R. 1980. *The Structure of Intonational Meaning: Evidence from English.* Bloomington: Indiana University Press.

Ladd, D. R. 1996. *Intonational Phonology.* Cambridge, UK: Cambridge University Press.

Lambrecht, K. & Michaelis, L. 1998. Sentence accent in information questions: Default and projection. *Linguistics and Philosophy* 21, 477–544.

Nakipoğlu, M. 2009. The semantics of the Turkish accusative marked definites and the relation between prosodic structure and information structure. *Lingua* 119, 1253–1280.

Özge, U. and Bozşahin, C. 2010. Intonation in the grammar of Turkish. *Lingua* 120, 132–175.

Rizzi, L. 1997. The fine structure of the Left Periphery. In: Haegeman, L.(ed.) *Elements of Grammar.* Dordrecht: Kluwer. 281–337.

Rochemont, M. & Culicover, P. 1990. *English Focus Constructions and the Theory of Grammar.* Cambridge, MA: Cambridge University Press.

Schmerling, S. 1976. *Aspects of English Sentence Stress.* Austin: University of Texas Press.

Selkirk, E. 1984. *Phonology and Syntax: The Relation between Sound and Structure.* Cambridge, MA: MIT Press.

Shannon, C. E. 1948. A mathematical theory of communication. *Bell System Technical Journal* 27, 379–423.

von Stechow, A. & Uhmann, S. 1986. Some remarks on focus projection. In: Abraham, W. & de Meij, S. (eds.) *Topic, Focus and Configurationality.* Amsterdam: John Benjamins. 295–320

Steedman, M. & Kruijff-Korbayova, I. 2003. Discourse and information structure. *Journal of Logic, Language and Information* 12, 249–259.

Winkler, S. 1996. *Focus and Secondary Predication.* Berlin, New York: Mouton de Gruyter.