

Turkish as a (non)-*wh*-movement language

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Introduction

Turkish is a *wh*-in-situ language in which *wh*-phrases typically appear in the positions corresponding to the merge position of an R-expression in both root and embedded questions (cf. Erguvanlı 1984, Akar 1990, 2000, Özsoy 1993, 1996, 1999, Kornfilt 1997, Şener 2005). (1) is a typical root *wh*-question in Turkish.¹

- (1)
Köpek kim-i kovalı-yor?
dog-NOM who-ACC chase-PROG
'Who is the dog chasing?'

Within the LF-raising analysis of the *wh*-in-situ constructions proposed by Huang (1982), the *wh*-phrase in (1) is assumed to raise to Spec, CP at LF. (2) is the LF rep-

¹ As (i)a/a', and (i)b/b' illustrate, *wh*-scrambling also applies to move a *wh*-phrase over another in a multiple *wh*-construction. In (i)b', the Accusative *wh*-phrase which merges with the V before the subject phrase merges into Spec, VP has scrambled over the nominative *wh*-phrase to sentence initial position (cf. (i)a/a' and (i)b/b', Göksel and Özsoy's 2000 examples (13-14).

- (i)a.
KIM kim-i sev-iyor-muş?
Who who-ACC love-PROG-HS-3
'WHO loves whom?'
- a'.
*Kim KIM-I sev-iyor-muş?
Who who-ACC love-PROG-HS-3
'Who loves WHOM?'
- b.
*Kim-i KIM sev-iyor-muş?
who-ACC WHO love-PROG-HS-3
b'.
?KIM-i kim sev-iyor-muş?
who-ACC who love-PROG-HS-3
'Who loves WHOM?'

The Accusative *wh*-phrase licitly appears to the left of the Nominative *wh*-phrase, as long as no constituent to the right of the *wh*-phrase that has undergone movement bears stress. To account for the facts of (ia-b), Göksel and Özsoy (2000) hold that Turkish is a focus field language in which the *wh*-phrase that moves to sentence initial position is the one that bears stress.

resentation of (1) according to the LF-raising analysis of the *wh*-in-situ phenomenon.

(2)
 [CP Kim-_i [IP köpek [VP t_i [VP t_i kovalı-yor]]]]
 who-ACC dog-NOM chase-PROG

(3) exemplifies an embedded *wh*-construction in Turkish.

(3)
 [CP [TP Aylin [VP [CP [TP Melis-in [VP ne-yi_i [VP t_i beğen-diğ-i-ni]
 -GEN what-ACC like-NOM-3POSS-ACC
 duy-muş]]] / [?/*.]
 hear-HS
 ‘What_i did Aylin hear Melis likes t_i?’ / *‘Aylin has heard what_i Melis likes t_i.’

(3) is potentially ambiguous between the wide and narrow scope readings of the *wh*-phrase. The ambiguity is resolved through prosody in Turkish. Falling intonation [\] on the utterance with stress realized on a constituent other than the *wh*-phrase expresses narrow scope.

(4)
 [TP Aylin [VP[PRO [CP ne-yi_i [TP Melis-in [VP ne-yi_i [VP t_i beğen-diğ-i-ni]
 -NOM -GEN what-ACC like-NOM-3POSS-ACC
 öğren-mek] ist-iyor]]].
 learn-INF want-PROG
 ‘Aylin wants to find out what Melis likes/d.’
 ‘*What_i does Aylin want to find out Melis liked t_i.’

Wide scope reading of the *wh*-phrase in (3) is expressed with stress on the *wh*-phrase and rising intonation [/] on the utterance.

(5)
 [CP [TP Aylin [VP[PRO [CP [TP Melis-in [VP ne-YI_i [VP t_i beğen-diğ-i-ni]
 -NOM -GEN what-ACC like-NOM-3POSS-ACC
 öğren-mek ist-iyor]]] ?
 learn-INF want-PROG
 ‘What does Aylin want to find out that Melis likes/d?’
 ‘*Aylin wants to find out what Melis likes/d.’

We take intonation to be an overt Q-element in Turkish which agrees with the *wh*-feature on matrix C⁰ typing the matrix clause as an interrogative clause in the sense

of Cheng (199). In constructions in which the *wh*-phrase has matrix scope, the Q-feature overtly raises to matrix C^0 to mark the whole construction as a root question.

(6a-b) respectively are the LF-representations of the wide and narrow scope readings of the embedded *wh*-constructions in (4) and (5).

(6)a.

[_{CP} *ne-yi*_i [_{TP} Aylin [_{VP} [_{CP} *ne-yi*_i [_{TP} Melis-in [_{VP} *ne-YI*_i
-NOM -GEN what-ACC
[_{VP} *t*_i *beğen-diğ-i-ni* *duy-muş*]]]]] / .
like-NOM-3POSS-ACC hear-HS

b.

[_{CP} [_{TP} Aylin [_{VP} [_{CP} *ne-yi*_i [_{TP} Melis-in [_{VP} *ne-yi*_i [_{VP} *t*_i *beğen-diğ-i-ni*
-NOM -GEN what-ACC like-NOM-3POSS-ACC
duy-muş]]]]] / .
hear-HS

Turkish also licenses constructions in which *wh*-phrases appear in positions other than their canonical merge positions. *Wh*-scrambling applies both locally and in long distance, displacing the *wh*-phrase from its merge position to sentence initial position. (7a-b) illustrate local *wh*-scrambling. In (7b), the Accusative *wh*-phrase has crossed over the subject of its local clause, appearing in sentence initial position.²

(7)a.

Ayşe kim-i gör-müş?
who-ACC see-HS-3

² In a recent analysis of linearization of constituents in *wh*-constructions in Turkish, Şener (2005) proposed that there is a V-adjacency constraint on *wh*-phrases is a PF constraint on syntactic representations of *wh*-constructions. Şener holds that the constraint is transferred to PF via Spell-Out. He further holds that the constraint operates on *wh*-phrases to yield a configuration in which *wh*-phrases form an intonational unit with the verb. Şener formulates the Verb Contiguity Condition as follows: “At the level of PF, focused *wh*-phrases in a question must be exhaustively parsed as forming an intonational unit with the V.” Şener further holds that in multiple *wh*-constructions *wh*-phrases display ordering effects.

(8)a.

Kim kim-e vur-du?
Who who-DAT hit-PAST
‘Who hit whom?’ (Şener, 2005: 14)

b.

*Kim-e kim vur-du?
who-DAT who hit-PAST

That a constraint along the lines of Şener’s Verb Contiguity Condition is too strong to capture the linearization facts of a Turkish *wh*-construction had already been noted by Göksel and Özsoy (2000) who had stated that *wh*-phrases in Turkish can occur in a pre-verbal position other than the immediately preverbal position as long as the *wh*-phrase that moves is the stress-bearing constituent in the construction (cf. Göksel and Özsoy, 2001).

‘Who has Ayşe seen?’

b.

Kim-_i Ayşe t_i gör-müş?
WHO-ACC see-HS-3
‘Who has Ayşe seen?’³

(8) is an example of long distance *wh*-scrambling construction.

(8)

[_{CP} NE-YI_i [_{TP} Aylin [_{VP} [_{CP} [_{TP} Melis-in [_{VP} ~~ne-yi~~_i
what-ACC -NOM -GEN what-ACC
[_{VP} t_i beğen-diğ-i-ni] duy-muş]]] / ?
like-NOM-3POSS-ACC hear-HS

‘*Aylin has heard WHAT Melis likes/d./What has Aylin heard Melis likes/d?’

In (8), scrambling of the *wh*-phrase out of the embedded clause to the sentence initial position at the matrix clause level has yielded a grammatical structure.

Within the Minimalist Program of Chomsky (1995, 2000, 2001), movement is triggered by an uninterpretable feature of a functional head which needs to be eliminated before the derivation reaches LF. An uninterpretable feature becomes interpretable by means of a checking operation whereby the inherent interpretable feature of an element is attracted by the uninterpretable feature of the functional head through Agree, which checks, and in turn deletes, the uninterpretable feature of the host head. In accordance with minimalist considerations, movement triggered by an uninterpretable feature of a functional head is an obligatory operation, all other instances of displacement being instances of PF movement. Chomsky (1995) holds that an operation which has an effect on output is a syntactic operation. One of the questions that have received much attention within the recent generative literature has been the syntactic nature of scrambling in languages which license constructions in which constituents appear in positions other than their canonical merge positions. Ross’ (1967) seminal work on movement held scrambling to be a stylistic rather than a syntactic rule. Webelhuth (1988) considered scrambling to be movement of the ‘third kind’. Saito (1985) claimed scrambling to be a semantically vacuous optional operation. Miyagawa (1997, 2001, 2003, 2005), on the other hand, has presented arguments to the effect that scrambling is an obligatory operation. For Miyagawa, scrambling is triggered by the focus feature which can percolate to T-head. Mahajan (1990) has revealed the significance of the landing site of the displaced constituent, noting that scrambling can give rise to A-movement effects. Within the

³ (5b) is a licit construction under the condition that no constituent to the right of the *wh*-phrase bears stress (cf. Göksel and Özsoy, 2000).

Minimalist Program. Bošković and Takahashi (1999) have argued that scrambling is the output of external merge whereby constituents reconstruct to their theta positions as a last resort operation. In a recent analysis of scrambling, Saito (2003) has argued that features are interpreted where they are selected.

This paper argues that local and long distance *wh*-scrambling in Turkish are syntactic operations which apply prior to Spell Out, moving *wh*-phrases out of their merge position to sentence initial position. It is argued that, contra Saito (2003), *wh*-scrambling is not a PF-phenomenon in Turkish but a syntactic operation which applies in the computational component of language. The displaced constituent is attracted by an uninterpretable feature of the probe, targeting the specifier position of the relevant head. Locality conditions determine the nature of the displaced *wh*-phrase being attracted by the closest functional head, T^0 and C^0 respectively. In this sense, Turkish is a *wh*-movement language in which the *wh*-phrases remain in-situ only in the absence of the attracting feature. Section Two presents evidence to the effect that *wh*-scrambling is a syntactic operation; local scrambling has an effect on the binding properties within the construction. Section Three argues for the syntactic nature of long distance *wh*-scrambling in Turkish- in multiple *wh*-constructions, superiority effect are observed in those cases in which the *wh*-phrases are constituents of different clauses, otherwise, i.e. in constructions in which the *wh*-phrases are constituents of the same clause, anti-superiority effects obtain. This is predicted given that *wh*-scrambling in the latter case is in fact behaving as local scrambling with verb movement within the embedded clause making the two *wh*-phrases equidistant with respect to movement to the Spec,CP of the containing clause, making it possible for the displaced *wh*-phrase to successively cyclically move to Spec,CP of the matrix clause. Section Four is the conclusion.

2. *Wh*-scrambling as A-/A'-movement

Wh-phrases that have undergone short and long distance scrambling in Turkish exhibit different properties with respect to the familiar diagnostics proposed by Mahajan (1990) distinguishing between A-/A'-scrambling. Locally scrambled *wh*-phrases exhibit A-movement properties, while *wh*-phrases that have undergone long distance scrambling behave as A'-moved constituents. A *wh*-phrase that has locally scrambled to sentence initial position can repair a weak cross over violation, licitly binding an anaphor in the subject phrase. A long distance scrambled *wh*-phrase, on the other hand, cannot. This distinction in the binding properties of local and long distance *wh*-scrambling we take as evidence that local *wh*-scrambling is A-movement while long distance is A'-movement.

That local scrambling of a *wh*-phrase to sentence initial position exhibits properties typical of A-movement in the sense of Mahajan (1990) is evinced by the fact that constructions in which a *wh*-phrase that has locally scrambled to sentence initial position licitly repairs weak cross over violations. The anaphor in the subject phrase

of such constructions can be bound by the moved *wh*-phrase, as the grammaticality of (9c) in contrast to the ungrammaticality of (9b) illustrates.

(9)a.
 [TP Kim_i [VP pro_i anne-si_i-ni ara-d₁]]?
 who mother-3POSS-ACC call-PAST
 ‘Who called his mother?’

b.
 *[TP pro_i Anne-si_i [VP kim_i-i ara-d₁]]?
 mother-3POSS who-ACC call-PAST
 ‘Who did his mother call?’

c.
 [TP Kim-i_i [IP pro_i anne-si [ara-d₁]]]?
 who-ACC mother-3POSS call-PAST
 ‘Who did his mother call?’

In (9c) scrambling of the potential antecedent to the presubject position has given rise to a construction in which the WCO effect is repaired, obviating a Condition A violation. Such constructions are evidence that local *wh*-scrambling has applied before the derivation is sent to Spell Out in Turkish, i.e. local *wh*-scrambling is a syntactic operation in Turkish.

As (10a-b) illustrate, a long distance scrambled *wh*-phrase cannot repair a weak cross over effect in Turkish.

(10)a.
 [TP pro_i anne-si [CP [TP Zeynep-in kim_i-i gör-düğ-ü]]-nü
 self mother-3POSS -GEN who-ACC see-NOM-3POSS-ACC
 söyle-di]?
 say-PAST
 ‘Who did her mother say that Zeynep saw?’

b.
 *[CP Kim-i_i [TP pro_i anne-si [CP [TP Zeynep-in ~~kim_i-i~~
 who-ACC mother-3POSS -GEN
 gör-düğ-ü]]-nü söyle-di]]].
 see-NOM-3POSS-ACC say-PAST

In the next section, evidence will be presented from multiple *wh*-phrase constructions to the effect that long distance *wh*-scrambling is in fact a syntactic operation, not a PF phenomenon in Turkish. It will be shown that with respect to a number of

other diagnostics distinguishing between a syntactic operation and an operation that is not part of the computational system of language, long distance *wh*-scrambling exhibits properties that are typical of a construction in which displacement has taken place within the syntax. The distinction between the binding properties of a short and long distance scrambled *wh*-phrase will hence be shown to be the outcome of the difference in the nature of the landing site of the scrambled *wh*-phrases in the two instances respectively.

3. Long distance *wh*-scrambling as a syntactic operation

The evidence to the effect that long distance *wh*-scrambling is a syntactic operation is presented by the (anti-)superiority effects exhibited by multiple *wh*-constructions in which scrambling has applied to displace a *wh*-phrase from its merge position. In multiple *wh*-constructions in which the two *wh*-phrases are constituents of the same (embedded) clause, scrambling exhibits anti-superiority effects. In multiple *wh*-constructions in which the two *wh*-phrases are constituents of the different clauses, on the other hand, scrambling of a *wh*-phrase observes superiority effects, an indication that *wh*-scrambling is a syntactic, not a PF, operation.

3.1. Scrambling and multiple *wh*-constructions

(11) and (12) respectively illustrate multiple *wh*- constructions in which the two *wh*-phrases are constituents of the embedded clause and those in which the two *wh*-phrases are constituents of different clauses..

(11)
 Sen [CP kim-in_j [VP kim-i t_j [t_i gör-düğ-ü-nü]]] duy-du-n?
 you who-GEN WH-ACC see-NOM-3POSS-ACC hear-PAST-2SG
 ‘Who_i did you hear t_j saw who?’

(12)
 [Aylin [kim-e [Zeynep-in kim-i gör-düğ-ü-nü] sor-du?
 who-DAT -GEN who-ACC see-NOM-3POSS-ACC ask-PAST
 ‘Whom did Aylin ask t Zeynep saw who?’ /
 ‘Who did Aylin ask whom Zeynep saw t?’

As (13a-b) illustrate, a *wh*-phrase in an embedded clause can undergo long distance scrambling in Turkish, moving out of its containing clause to sentence initial position.

(13)a.
 [CP [TP Aylin [VP [CP [TP Melis-in [VP ne-yi_i [VP t_i beğen-diğ-i-ni]
 -GEN what-ACC like-NOM-3POSS-ACC

duy-muş]]] \ [. /*?]

hear-HS

‘Aylin has heard what_i Melis likes t_i. / *What_i did Aylin hear Melis likes t_i?’

b.

[_{CP} NE-Y_i [_{TP} Aylin [_{VP} [_{CP} [_{TP} Melis-in [_{VP} ~~ne-y_i~~ [_{VP} t_i beğen-diğ-i-ni]
what-ACC -NOM -GEN what-ACC like-NOM-3POSS-ACC
duy-muş]]] / ?

hear-HS

‘*[_{CP}[_{TP}Aylin has [_{VP}[_{VP} heard [_{CP} WHAT_i [_{TP} Melis [_{VP} t_i [_{VP} likes/d t_i]]]]]]]].’ /

‘[_{CP} What_ihas [_{TP} Aylin [_{VP} [_{VP} heard [_{CP} t_i [_{TP} Melis [_{VP} t_i [_{VP} likes/d t_i]]]]]]]]?’

What is significant is that long distance *wh*-scrambling is possible only in those cases in which the *wh*-phrase takes matrix scope. (14) in which the prosody of the construction indicates that the *wh*-phrase has narrow scope is ungrammatical.

(14)

*[_{CP} Ne-y_i [_{TP} Aylin [_{VP} [_{PRO} [_{CP} [_{TP} Melis-in [_{VP} ~~ne-y_i~~
-NOM -GEN what-ACC
[_{VP} t_i beğen-diğ-i-ni] öğren-MEK ist-iyor]]] \ [. /*?
like-NOM-3POSS-ACC learn-INF want-PROG

‘*Aylin wants to find out WHAT Melis likes/d.’

‘What does Aylin want to find out that Melis likes/d?’

The ungrammaticality of (14) is evidence that a long distance scrambled *wh*-phrase does not reconstruct to its base position in Turkish. Given that in Turkish embedded *wh*-constructions rising intonation functions as overt Q-particle typing the matrix clause as an interrogative clause, its absence in (14) indicates that the construction is an indirect question. The fact that (14) is ungrammatical is evidence that a *wh*-phrase with narrow scope does not scramble out of its own clause.

3.2. (Anti)-superiority and long distance *wh*-scrambling

Significantly, in scrambling out of multiple *wh*-constructions, anti-superiority effects are exhibited when the two *wh*-phrases are constituents of the same clause.

(15)a.

Sen [_{CP} kim-in_j [_{VP} kim-i t_j [_{t_i} gör-düğ-ü-nü]]] duy-du-n?
you who-GEN wh-ACC see-NOM-3POSS-ACC hear-PAST-2SG

‘Who did you hear *t* saw who?’

b.

[_{CP} Kim-i [_{TP} sen [_{VP} [_{CP} kim-in [_{TP} [_{VP} t gör-düğ-ü-nü]]] duy-du-n]]]?

wh-ACC you who-GEN see-NOM-3POSS-ACC hear-PAST-2SG
 ‘Who did you hear Aylin saw *t*?’

The anti-superiority effect in (15) is due to the fact that Turkish licenses clause internal scrambling of *wh*-phrases. In this sense (15) does not constitute a violation of the *wh*-island constraint. The movement of the embedded verb to V-to-*v*-to-T within its own clause makes the subject and object *wh*-phrases equi-distant with respect to movement to Spec,CP of the embedded clause. The Accusative-marked *wh*-phrase hence can move to SPEC, CP of its own clause from where it can successive cyclically move to SPEC,CP of the matrix clause.

Crucially, superiority obtains in those cases in which scrambling applies to a multiple *wh*-construction in which the *wh*-phrases are not constituents of the same clause. In such cases it is the *wh*-phrase in the higher clause that scrambles.

(16)a.

[_{TP} Aylin [_{VP} [_{VP} kim-e [_{CP} [_{TP} Zeynep-in [_{VP} [_{VP} kim-i gör-düğ-ü]-nü
 -NOM who-DAT -GEN who-ACC see-NOM-3POSS-ACC
 sor-du?
 ask-PAST
 ‘Whom did Aylin ask *t* Zeynep saw who?/Who did Aylin ask whom Zeynep
 saw *t*?’

b.

*[_{CP} Kim-i [_{TP} Aylin [_{VP} [_{VP} kim-e [_{CP} [Zeynep-in kim-i
 who-ACC -NOM who-DAT -GEN
 gör-düğ-ü]-nü sor-du?
 see-NOM-3POSS-ACC ask-PAST
 ‘Whom did Aylin ask *t* Zeynep saw who?/Who did Aylin ask whom Zeynep
 saw *t*?’

c.

[Kim-e Aylin [~~kim-e~~ [Zeynep-in kim-i gör-düğ-ü]-nü]
 who-DAT -NOM -GEN who-ACC see-NOM-3POSS-ACC
 sor-du?
 ask-PAST
 ‘Whom did Aylin ask *t* Zeynep saw who?/ Who did Aylin ask whom Zeynep
 saw *t*?’

The asymmetry between the (anti-)superiority effects of the multiple *wh*-constructions in (15) as opposed to those in (16) is due to the fact that in the former the displaced *wh*-phrase undergoes local scrambling crossing over the subject of its own clause before it scrambles to the presubject position of the higher clause. The anti-

superiority effect of long distance *wh*-scrambling in (15) is licensed by the availability of local scrambling which crosses the *wh*-constituent of the embedded clause within its own clause. In (16), however, the two *wh*-phrases are not in the same local domain, therefore superiority obtains. Long distance *wh*-scrambling abides by the Minimal Link Condition, evidence that it is a syntactic, not a PF, operation.

4. Conclusion

We take the above facts of long distance *wh*-scrambling to indicate that long distance *wh*-scrambling in Turkish constitutes an instance of overt *wh*-movement in which the scrambled *wh*-phrase moves into an operator position. We take this position to be Spec,CP of the matrix clause from where the long distance scrambled *wh*-phrase sets up a semantically significant operator-variable relation, binding its trace/lower copy in the merge position, moving successive cyclically through the intermediary specifiers to matrix Spec,CP. In (16), the *wh*-object first scrambles over the *wh*-subject of its own clause undergoing local scrambling. It then moves to Spec,CP of its own clause, followed by movement to Spec,CP of the matrix clause under feature matching with the Q-feature of the matrix C.

Given that long distance targets Spec,CP, the A'-properties exhibited by long distance scrambling observed in examples (2-4) are then due to the A'-nature of the position in which the displaced constituent occurs. Long distance scrambling is hence not a PF-phenomenon but an operation that applies in syntax. *Wh*-scrambling, local and long distance, is thus movement to a specifier position, albeit of different heads.

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