The aim of this study is to investigate the nature of the locality principle(s) that determine(s) the syntax and semantics of Wh-construction in Turkish. Specifically, it will attempt to account for the grammatically of the structures in 1a and 2a-b and the ungramatically of the structure in 1b.

1

a  [[Kim-in yaz-diğ-1] mektub]-u oku-du-n?
   Who-Gen write-Nom-3Poss letter-Acc read-Past-2sg
   *’Who did you read [the letter[t wrote]]?’

b  *[Adam-ın neden yaz-diğ-1] mektup uzun?
   Man-Gen why long
   *’why is [the letter [the man wrote t] long?’

2

a  Adam [kim-i gör-ünce] gül-dü?
   Man who-acc see-Ger laugh-Past
   *’Who did the man [the seeing t ] laugh?’

b  Kadın [nasıl konuş-arak] kız-i ikna et-ti?
   Woman how speak-Ger girl-Acc persuacation do-Past
   *’How did the woman persuade the girl [speaking t ]?’

1a and 2a respectively are apparent violations of strong islands-the complex NP and Adjunct Island condition on Wh-construction. In 1a and 2a long Wh-movement has gramatically extracted the Wh-phrases out of a Complex NP and an adjunct island respectively. Succesive cyclic movement in 1b and 2b, on the other hand,has resulted in
opposing grammatically. It has grammatically extracted an adjunct clause in 2b, but extraction of an adjunct out of a complex NP has resulted in an ungramatical structure. This paper will attempt to show that the unexpected grammatically patterns in 1a and 2a-b are due not to the irrevelance of Subjacency on Turkish Wh-constructions, but rather to the fact that Turkish syntax has a rule of ‘feature copying’ which copies the lexical feature of the Wh-phrase onto the dominating node which in turns is moved to the matrix COMP by pied-piping.

Before proceeding further, I would like to look briefly at some properties of the Turkish clause structure and Wh-constructions.

Turkish clause structure

Within the framework of Government and Binding theory, I assume the clause structure for Turkish to be as follows:

```
3  [ CP [SPEC ] [IP [AGR] [INFL] ] [C [NP.......] [VP[.......V] ] ] ]
```

It has been argued that the AGR in INFL is the head of S and assigns GEN/NOM to the subjects and agreement marker to the verb (Csato 1984; Kornfilt, 1984; Özsoy 1984). Thus, INFL is heavily marked with AGR and functions as lexical governor for subjects. Embeddings are in the form of nominalizations. In sentential subject and the verb has a nominal agreement morpheme.

In embedded clauses in Turkish, verbs are marked with the atemporal –mE or temporal –DIK/-ECEK suffixes. –mEk in its distribution. In embedded Ss, the Tense marker is followed by Agr(GEN) which is normally affixed to a noun to indicate possesion. This morpheme differs from that of the verbal agreement or AGR paradigm for matrix verbs and is followed by a Case marker assigned by the governing verb.

Turkish is also a pro-drop language, as can be expected from its heavily inflected AGR system.

Principles

Within the framework of Government and Binding (Chomsky 1982, 1986), a number of principles define the syntactic conditions under which an empty category can be licensed in a given structure. These are

The Empty Category Principle

A non pronominal element has to be properly governed.

Proper Government

α properly governs β if θ- governs or antecedent-governs β
a lexical category that is 0-marked or antecedent-governed is assigned the feature [+γ]. Once a category is g-marked, it retains the marking.

Turkish Wh-Constructions

Turkish does not possess a syntactic rule of Wh-movement, i.e. the Wh-phrase appears in situ in the surface structure in a Turkish Wh-question. Consider the following:

3

a Elif ne de-di?
What say-Past
‘What did Elif say?’

b Hakan kitab-ı kim – e ver-di?
Book-acc who-dat give-Past
‘Whom did Hakan give the book to?’

c Misafirler-ler ne zaman gel-di?
Guest- pl what time come-Past
‘When did the guest come?’

In 3a-c, the Wh-phrases ne, kime, and ne zaman respectively occur in those positions in which their NP-counterparts would be found in a regular Turkish sentence. They have not moved to S-initial position as their English counterparts have.

Similarly, in the following complex structure, the Wh-phrase occurs in the embedded clause:

4

Akin [ben-im ne zaman gel-me-m-i söyle-di?
I-1Gen what time come-Nom-1Poss-Acc say-Past
‘When did Akin say I should come?’
Although Turkish Wh-phrases occur in situ, they nevertheless have scopal properties. Note that in 4 the Wh-phrase occurs in the embedded clause; its scope however is the matrix clause. Hence, we will assume that Turkish has a Wh-movement rule which has the effect of extracting a Wh-phrase from a structure and placing it in an A’-position-SPEC of COMP. The difference between the Wh-movement found in Turkish and a language like English is that while the rule applies at the syntactic level in the latter, it applies at LF in the former.

There are, however, structures in which the Wh-phrase occurs in S-initial position in Turkish. Consider 5 in which *kime* occurs not in its DS position but clause-initially:

5

```
Kim-e Hasan Kitab-ı ver-di?
```

Who-Dat book.Acc give-Past

Who did Hasan give the book to?

The grammatically of 5i however, is due not to the obligatory syntactic fronting of the Wh-phrase by the application of the Wh-movement rule similar to that of English, but rather of Scrambling rules which have the effect of shutting the relative order of constituents at S-structure in a Turkish sentence.¹

6

```
a Kim Kim-e ne-yi sat-miş?
```

Who who-Dat what.Acc sell-Rep

‘Who has sold what to whom?’

```
b Kim-e kim ne-yi sat-miş?
```

```
c Ne-yi kim kim-e sat-miş?
```

The fact that it is not only the c-commanding Wh-phrase, i.e.the Wh-phrase in the subject position, which can occur in S-initial position but that in fact any Wh-phrase can be

¹
moved to that position in Turkish indicates that the rule that moves Wh-phrases in surface structures to S-initial position in Turkish is not the syntactic Wh-movement rule similar to the one found in English, but rather is the rule that shifts the positions of constituents in surface structure to satisfy certain discourse conditions.

Further, movement of the Wh-phrase away from the original site is restricted in that the farther apart the SS position of a given Wh-expression is from its original site the less acceptable in the resulting structure:

7

a  Semra [İnci-nin [Ferhat-ın kim-i gör-eceğ-i-] ni söyle-dig-i]-ni unut-tu?
     -Gen   -Gen  see-fut-poss-Acc say-n-poss-Acc
     ‘Who did Semra forget that Inci said Ferhat would see?’

b  *Kim-i [Semra [İnci-nin [Ferhat-ın t gör-eceğ-i] ni söyle-dig-i]-ni unut-tu]
     -Gen   -gen  se-Fut-Poss-Acc say-n-Poss-Acc

The construct in the grammatically judgements on 9a and 9b indicates that the rule responsible for moving the Wh-initial position in Wh-constructions is distinct from the syntactic unbounded Wh-movement found in the grammar of English and is more restricted in its scope of application than the discourse conditioned Scrambling rule that applies to NPs to reorder constituents in the surface structure.

Turkish has 3 types of scope indicators for Wh-constructions:

The Q-particle mı

Wh-phrase

İntonation

Consider the following forms:

8

a  Radyo [kim-in gel-eceğ-i-] ni söyle-di?
   Radio who-Gen come-fut-3poss-Acc say-past
   ‘The radio announced who would come?’
b  Radyo [kim-in gel-eceğ-i-] ni söyle-di?

‘Whom did the radio announce would come?’

c  Radyo [kim-in gel-eceğ-i-] ni söyle-di mi?

Q

‘Did the radio announce who would come?’

I assume that the Q-element in the COMP position of the embedded clause. In 8b, the
Wh-phrase moves to the COMP position of the matrix clause, to be governed by the Q-
element that occupies the matrix COMP. In 8a, the strong stress falls on the matrix verb. The
scope of the Q-expression that appears within the complement clause is interpreted to extend
only within this smaller clause, so that the entire sentence comes out as a declarative sentence
that contains an indirect question. In 8b, where the strong stress falls on the embedded subject
and the complement clause is headed by the non-interrogative COMP, the scope of the Wh-
expression extends over the entire S. Thus, 8b as a whole is a question sentence that asks for
the identity of the person who is to come. The contact between 8a and 8b suggests that if
Turkish has Wh-movement at LF, its effect must be such that it moves a Wh-expression to the
position which c-commands which c-commands the domain designated by the interrogative
COMP.

In the case that the matrix COMP is filled with the phonologically realized Q-element
mI, the scope of the Wh-phrase is usually restricted to the embedded clause, as illustrated in
9:

9  

Radyo [Kim-in gel-eceğ-i ] ni söyle-di mi?

Q

‘Old the radio announce who was coming?’

The most common response to this question is

9’  Evet, söyle-di.

Yes say-past

‘yes, it did.’
Wh-Movement: Long vs successive cyclic

The ECP and the definition of Proper Government as stated above force a successive cyclic derivation of 0'-marked categories and allow long movement of 0-marked categories in Wh-constructions in Turkish. Consider the following structures in which a 0-governed and a 0'-governed category respectively have been extracted out of verb complement clauses:

10

a  Hasan [Uğur-un ne -yi iste-di-i] ni unut-tu?
   Gen what-Acc want-Nom-3Poss-Acc forget-past

‘What did Hasan forget [Uğur wanted t]?’

b  [Bu kazak-ı nasıl ör- meğ-] i düşün-üyor-sun?
   This sweater-Acc how knit-INF-Acc think-Prog-2sg

‘How do you plan [ to knit this sweater t ]?’

The LF-representation of these structures is given in 10’a-b:

10’

a  [CP [SPEC neyi] [C’ [IP [NP hasan] [VP t’’’ [CP [SPEC t’’’]]
       [C’[NP uğur]
       [VP t’ [t iste- ] dik-] i] ni söyle-]]

b  [CP [SPEC nasıl] [C’ [NP sen] [VP t’’ [t’’’ [CP [SPEC t’’]]
       [C’ [PRO]
       [VP t’ [bu kazak-ı t ör- ] -mek-] i düşün-]]]}

In 10b, t is not 0-governed. To be properly governed, i.e. [γ]-marked, it needs to be antecedent governed. Successive cyclic movement of nasıl first to the embedded VP, then higher up the structure satisfies the ECP, t is antecedent-governed by t’. t’ is in turn antecedent governed by t’’, which is antecedent governed by nasıl in the matrix COMP. Through this government chain, proper government is ensured and the structure is grammatical.
In 10a, on the other hand, the Wh-phrase is \( \theta \)-governed and L-marked; hence it is properly governed. The t's higher in the structure do not necessarily need to be present. The Wh-phrase can move directly to the matrix COMP with long movement and the trace adjoined to the embedded VP can delete.

The following is an example of the violation of a weak Wh-Island in which a \( \theta' \)-governed category in A-position has been extracted out of a \[((\ldots)(\ldots)_m\text{Adj}\ldots)\) clause:

11  

[Hangi arabaa-nın [pahalı ol-] duğ-u nú düşün-üp düşün-me-

Which car -Gen expensive be-Nom-3Poss-Acc think-
yeceğ-i-ni bil-m-iyor.]

know-neg-prog

*'Which car doesn’t he know whether he should consider\[t\] expensive?’

The trace is not \( \theta \)-governed, but occurs in A-position as subject of an adjectival predicate. Hence, to satisfy the ECP, it has to be antecedent governed. It is if the Wh-phrase adjoins to the higher VP, from where it antecedent governs and \([\gamma]\) marks the original trace at S-structure since the trace is in an A-position. But once \([\gamma]\) marking has taken place, the VP-adjoined trace can be then delete. No intermediate trace will be necessary to antecedent govern it. Consequently, the Wh-phrase will be able to undergo long Wh-phrase from the VP-adjoined position.

12 is an example of those cases in which a \( \theta' \)-governed Wh-phrase is extracted out of a strong Wh-Island. In 12, the Wh-phrase is \( \theta' \)-governed and the government chain is blocked by the occurrence of a Wh-phrase in the Spec of the embedded complement clause. Note that the attempted extraction of the \( \theta' \)-governed Wh-phrase yields an ungrammatical result:

12  

*\([nasıl \ [t' \ [Hangi problem-i çöz-eceğ]-i]-ni düşün-üyor-sun\]

How which problem-Acc solve-Nom-3Poss-Acc think-Prog-2sg

*'How do you think which problem you will solve t?’

The extraction of the Wh-phrase \textit{nasıl} even with special intonation is outlawed in 12. The following response is not a felicitous answer to the question:
12  Yavaş yavaş.

Slowly slowly.

wheras 12b is a possible acceptable answer:

12

b  Dünkü problemi.

Yesterday’s problem.

This is due to the violation of Subjacency. The adjunct is not q-governed; therefore it needs to be antecedent governed to satisfy the ECP. The movement of the Wh-phrase to the embedded VP in 12 allows the trace in the embedded clause to be antecedent governed. However, t’’ and t’, causing t’ to become the offending trace in the structure. The violation of Subjacency predicts the ungramatically of 12.

In Turkish Wh-constructions, in certain cases, it seems to be also possible to violate the Doubly Filled Comp Constraint at the matrix level. Consider the following:

13  Alev [kim-in ne- yi seyret-tığ-i ] - ni bil- iyor mu?

Who-Gen what-Acc watch-Nom-3Poss-Acc know-Prog Q

‘Does Alev know who watched what?’

Although the matrix COMP is filled with the Wh-element $mI$ on the matrix verb in 13) designating its scope as the matrix clause, it is possible to interpret this question structure as one in which both of the Wh-phrases in the embedded clause, $kim$ and $ne$, extend their scope beyond the embedded clause. That is, although the Q-element $mI$ of the main clause binds neither of the Wh-phrases in the embedded clause, and consequently the utterance shuld be interpreted only as a Yes-No question as a whole with the presence of $mI$ blocking the movement of the Wh-phrase to the SPEC position of the matrix COMP, the possibility of the following utterances as anwers to the question above indicates that in certain cases the Doubly Filled Comp Filter can be violated in Turkish:
The most appropriate response to the above question being 13’c:

13’

c Evet, bil-iyor.

Yes, know-Prog

Further, note that Superiority Condition does not seem to hold in these cases, since both 13’a and 13’b are grammatical in Turkish.

The folowing is a rough schematisation of the Wh-contructions at LF in Turkish in which the matrix COMP is filled with more than one Q-element:

(14’) d.

As can be observed, it is possible to move either one or both of the Wh-phrases out of the embedded clause. Further, as will be discussed below, it is also possible to move adjuncts out of Wh-islands in certain cases in Turkish.

Those cases in which 0-governed Wh-phrases are extracted out of Wh-islands when the matrix COMP is not filled wșt a phonologically realised Q-element are in fact only
marginally possible, being most commonly interpreted as indirect questions. The following is such a construction:


Thus extractibility of Wh-phrases in Turkish seems to be more restricted in those cases in which there is no overt marker to ‘attract’ the Wh-phrase to the matrix COMP.

Another example illustrating this point is given in 16 which is a structure in which the matrix COMP is filled with Wh-phrase:

16

a  [Alev-in hangi kutu-yu nere-ye yolla-diğ-i]-ni kim bil-iyor?
   -3Gen which box-Acc Wh-Dat send-Nom-Poss-Acc who know-Prog
   ‘Who knows [which box [ Alev sent where ] ]?’

As the grammatically of both 16’a and 16’b indicates, it is possible for the matrix COMP to be doubly and triply filled in Turkish:

16’

a  [Alev-in hangi kutu-yu nere-ye yolla-diğ-i]-ni Akın bil-iyor.
   ‘Akın knows which box Alev sent where.’

b  [Alev-in kırmızı kutu-yu Ankara-ya , mavi kutu-yu Denizli-ye red box-Acc -Dat blue box-Acc -dat
   yolla-diğ-i]-ni Akın hatırl-iyor.
   Send-Nom-3Poss-Acc remember-Prog
   ‘Akın remembers that Alev sent the red box to Ankara, blue box to Denizli.’

There seem to be no restrictions on the crossing effects of 0-governed Wh-phrase and VP-internal adjuncts out of those embedded clauses the COMP of which is already filled with a Wh-phrase. Thus, note that both 16’c and 16’d are possible responses to 16:
16’

c  [Alev-in  hangi  kutu-yu  Ankara-ya ,  hangi  kutu-yu  Denizli-ye
which box-Acc    -Dat which box-Acc    -dat
yolla-diğ-ı]-nı  Akın  hatırl-iyor.
Send-Nom-3Poss-Acc  remember-Prog

‘Akin remembers Alev sent which box to Ankara, which box to Denizli.’

d  ?[Alev-in kırmızı kutu-yu nere-ye, mavi kutu-yu nere-ye yolla-diğ-ı-] nı
red box-Acc    -Dat blue box-Acc    -Dat send-Nom-3Poss-Acc
Akın  hatırl-iyor.
Remember-Prog

’*Akin remembers Alev sent where the red box e, where the blue e.’

In 16’c, the Wh-phrase nereye ‘where’ has been moved to the matrix COMP, in 16d
hangi kutu ‘which box’. In fact, 16’c is judged to be better.

Likewise, in the following example, it is possible to extract either or both of the Wh-
phrases from the complement clause. What is significant in Turkish Wh-constructions is that
there seems to be an asymmetry in the grammatically of those cases in which a VP-internal
adjunct crosses a 0-governed Wh-phrase and those in which a VP-external adjunct is
extracted, as can be observed in the marginality of 17’c in which the attempted reading is with
nasıl in the matrix COMP:

17

Hasan  [Alev-in ne-yi nasıl yıka-diğ-ı]- nı  hatırl-iyor?
-3Gen what-Acc how wash-Nom-3Poss-Acc remember-Prog

All of the following are possible responses to 17:

17’

a  Hasan  [Alev-in bulaşıklar-ı çabuk yıka-diğ-ı]- nı  hatırl-iyor.
Thus, VP-internal adjuncts in Turkish tend to be more readily extractable than the VP-external adjuncts. The ECP violation of VP-external adjuncts seems to be stronger than that of VP-internal adjuncts.

A further constraint on Wh-constructions in Turkish seems to be that the extractibility of Wh-phrases out of ‘weak’ Wh-islands seems to be even more restricted in those cases in which the matrix COMP contains the NEG element. Thus, the following question is more likely to be interpreted as an echo-question than a regular information question:

18

*Who doesn’t Ayşe know [whether [ t came to the party] ].’

Subjacency violations

Subjacency

Although the apparent violations of Subjacency conditions in 1 and 2 seem to imply that for Turkish Wh-constructions Subjacency is not relevant, the asymmetry exhibited by the various structures with respect to the extractibility of Wh-phrases needs to be accounted for. This section will argue that this constructions do not in fact involve the movement of the Wh-phrase out of its BC and hence do not constitute counter examples to Subjacency. What moves to SPEC of the matrix clause in these constructions is indeed not the Wh-phrase but the whole maximal projection that the Wh-phrase is a constituent of. As such, the Wh-phrase moves only within the scope of its containing clause, not violating Subjacency. This is achieved by
the application of mechanism of pied piping that Turkish grammar possesses whereby through
the process of ‘feature percolation’ the [+Wh] feature of the Wh-phrase percolates up to the
node heading the maximal projection, marking the maximal projection as [+Wh], thus
allowing the whole maximal projection to move to the SPEC of the matrix clause. A similar
mechanism has been proposed by Nisidauchi (1990) for Japanese to account for ‘extraction’
of Wh-phrases out of complex NPs. It will be argued that the process is not limited to
complex NPs in Turkish, but applies to adjunct islands as well, making it possible to ‘extract’
Wh-phrases in argument as well as non-argument position out of these constructions in
Turkish. In order to avoid repeating the sentences, I would like you to refer back sentences 1
and 2.

Note that 1a and 2a respectively are apparent violations of strong islands—the complex
NP and the Adjunct Island condition on Wh-constructions respectively. In 1a and 2a, long
Wh-movement has grammatically extracted a 0-governed Wh-phrase out of a Complex NP and
an adjunct island respectively. The application of successive cyclic movement to 0'-governed
categories in 1b and 2b, on the other hand, has yielded opposing grammatically. While an
adjunct has been grammatically extracted out of an adjunct clause in the latter, extraction of an
adjunct out of a complex NP has resulted in an ungrammatical structure in the former.

Furthermore, it is not the case that adjuncts can freely extract out of all adjunct
clauses. Consider the following:

2’

a  *[Bulaşıklar-ı nasıl yıka-madan] TV seyred-iyor-sun?
Dishes-Acc how wash-Ger TV watch-Prog-2sg
‘How come you are watching TV without doing the dishes------?’

b  *[Bulaşıklar-ı nasıl yıka-madan önce] TV seyred-iyor-sun?
Dishes-Acc how wash-Ger before TV watch-Prog-2sg
‘How come you are watching TV before doing the dishes------?’

That is, those cases in which both subjacency and the ECP are violated in Turkish Wh-
constructions are unretrievably bad in certain cases but not in others. Furthermore, as has
already been observed, it is not the case that all maximal projections of the same category
behave similarly with respect to allowing movement out of their domain at LF.

Although in 11, the adjunct clause is a BC and a barrier and IP inherits barrierhood,
the questions are grammatical:
The Q-phrases are L-marked; they are therefore γ-marked.

Further examples of extraction out of adjunct clauses are given below:

20

a Sen [[-----kim-(i)-nle görüş-tük-ten] sonra] dışarı çık-tı-n?
You whom-3Poss-Com talk-Nom-Abl after out go-Past-2sg
‘Who did you go out [after talking to t ]?’

b Sen [[-----kim-i gör-dük-ten] sonra] dışarı çık-tı-n?
You who-Acc see-Nom-Abl after out go-Past-2sg
‘Whom did you go out [after talking to t ]?’

c Sen [[çocuk şarkı söyle-dik-ten] sonra] dışarı çık-tı-n?
Child how song sing-Nom-Abl after out go-Past-2sg
‘How did you go out [after the child sang t ]?’

21

a [O-nu nasıl konuş-up] ikna et-ti-n?
s/he-Acc how speak-Ger persuasion do-Past-2sg
‘How did you persuade her [by talking t ]?’
b [O-nu nasıl konuş-arak] ikna et-ti-n?
  s/he-Acc how speak-Ger
  ‘How did you persuade her [by talking t ]?’

c [CP [IP Kız nasıl ağla-rken] içeri gir-di-n?]
  Girl how cry-Ger inside go-Pat-2sg
  ‘How did you go in [when the girl was crying--------]?’

20a-c illustrate extraction of 0-governed and 0’-governed categories out of postpositional clauses, 21a-c of 0’-governed categories out of gerundive clauses. The following illustrates that extraction of 0-governed Wh-phrases is also possible out of gerundive clauses:

21
d Kız kim-e bağır-ırkken] içeri gir-di-n?
  Girl who-Dat shout-Ger inside go-Past-2sg
  *’Who did you go in [as the girl was shouting t ]?’

What is crucial is that both of the following are appropriate responses to the questions to 20c and 21a-b respectively:

20’
a güzel güzel.
  Nicely nicely.

b güzel güzel şarki söylediğten sonra.
  After singing nicely.

21’
a Tatlı tatlı.
  Pleasantly.
b Tatlı tatlı konuşarak.

By talking pleasantly.

The appropriateness of 21'b is crucial for the analysis of the Wh-constructions assumed here in that it provides evidence to the movement of the whole clause to S-initial position and not just of the Wh-phrase.

The movement of a Wh-phrase that is a constituent of the matrix clause commonly appears outside the embedded clause, as illustrated in the following example:

22

22 a [O-nu konuş-up] nasıl ikna et-ti-n?
S/he-Acc speak-Ger how persuasion do-Past-2sg
‘How did you persuade her t [by talking]?’

b [O-nu konuş-arak] nasıl ikna et-ti-n?
S/he-Acc speak-Ger how
‘How did you persuade her t [by talking]?’

The extraction of 0-governed categories is free of those adjunct clauses that otherwise block the extraction of 0’-governed categories:

23

a [[Kim gel-meden] önce] dışarı çık-ti-n?
Who come-Ger before outside go-Past-2sg
‘Who did you go out [before t came]?’

b [[Kim-i gör-meden] önce] dışarı çık-ti-n?
Who-Acc see-Ger
‘Who did you go out [before seeing t ]?’
Thus, 0-governed seems to be a sufficient but not a necessary factor in extracting Wh-phrases out of islands in Turkish. What is significant is that 0-government and/or being in A-position seem to be the determining factors in the ‘extractibility’ of Wh-phrases out of complex NPs, while it seems to be irrelevant in the case of ‘extraction’ out of adjunct clauses. Consider again the following examples in which a 0-and a 0’-governed category has been ‘extracted’ out of a complex NP containing a relative clause in 24a and 24b respectively and a 0’-governed category in A-position in 24c:

24

a  [Kim-in yaz-dı-ı] mektup kaybol-muş?
   Who-Gen write-Part-3Poss letter lose-past
   ‘The letter who wrote is lost’

b  *[Ahmet-in nasıl yaz-dı-ı] mektup kaybol-muş?’

   Who-Gen big be-Nom-3Poss-Acc think-Part man-Acc listen-Past-2sg
   ‘Who did you listen to [the man [ who thought [ it is great] ]]?’

The grammaticaly of 24a and 24c as opposed to teh ungrammatically of 24b indicates that 0-government and A-position are crucial for the exrraction of Wh-phrases out of complex NPs in Turkish. This behavior is predicted on the basis of the syntactic properties of the ‘feature percolation’ process as it applies in Turkish.

Proposal: pied- piping

In order to account for the asymmetry observed between the extractability of 0-governed categories as opposed to the non-extractibility of 0’-governed categories out of complex NPs,
I would like to argue that Turkish grammar has a process of ‘feature percolation’ similar to the one proposed by Nishigauchi for similar facts of Japanese syntax. Nishigauchi argues that this process allows a mechanism of ‘pied piping’ which accounts for apparent violations of Subjacency in extracting Wh-phrases out of complex NPs in Japanese. He argues that these cases are indeed not violations of Subjacency but rather instances of the movement of the NP node dominating the relative clause to the matrix SPEC position as a result of the percolation of the [+Wh] feature of the Wh-phrase to the dominating node.

Nishigauchi argues that the movement of a Wh-phrase to a SPEC position of S’ identified as the maximal projection of COMP results in the marking of the CP as [+Wh]. Once the CP, which occupies the SPEC of the complex NP is marked [+Wh], then this [+Wh] feature percolates up to the head node dominating the complex NP, i.e. NP. The NP that is marked [+Wh] can then move to the SPEC of the matrix clause, causing the relative clause to move to S-initial position as well. Thus, movement of the Wh-phrase actually involves movement within its own clause, there being no violation of Subjacency. The pied-piping mechanism can be schematized as below:

\[
(25) \quad \begin{array}{c}
\text{CP= S'} \\
\text{SPEC} \\
\quad \text{C'} \\
\quad \quad \text{[+Wh]} \\
\quad \quad \text{C} \\
\quad \quad \quad \text{IP=S} \\
\quad \quad \quad \quad \text{NP} \\
\quad \quad \quad \quad \quad \text{VP} \\
\quad \quad \quad \quad \quad \quad \text{CP=S'} \\
\quad \quad \quad \quad \quad \quad \quad \text{N} \\
\quad \quad \text{CP=S'} \\
\text{SPEC} \\
\quad \text{C'} \\
\quad \quad \text{[+WH]} \\
\quad \quad \text{C} \\
\quad \quad \quad \text{S} \\
\quad \quad \quad \quad \text{[Wh]} \\
\quad \quad \quad \quad \quad \cdots \text{t...} \\
\end{array}
\]
The movement of the whole NP to S-initial position is sanctioned by the principle which states that the movement of the maximal projection can only be to a maximal projection. (Chomsky, 1986).

Further, Nishigaushi proposes the principle of categorical identity to account for the difference in the grammaticality of those Japanese complex NPs out of which 0- and 0-governed categories have been extracted. He argues that the ungrammaticality of construction similar to 1b is due to the restriction that for the [+Wh]-feature of Wh-phrase to percolate to its dominating node, the Wh-phrase must be identical in syntactic category with the head of the construction. He states “the Wh-phrase has to be at least [+N] in the sense X′ feature system in order for the [+Wh] to climb to the complex NP. If COMP or its projections are neutral with respect to X′-features such as [+/-N] where these features are determined on the basis of the features associated with lexical items which occupy the COMP node of S′i this latter will be [+N] if its COMP is filled with 0-governed Wh-expression and it will be [-N] if it is filled with adjunct. If the latter is the case, the percolation of [+Wh] to the immediately dominating NP node will be blocked, because of the requirement on categorical identity”. Nishigauchi invokes May’s Condition on Analysability: If a rule φ applies to the minimal [+N] phrase dominating SPEC, which is not immediately dominated by another [+N]-phrase.

Similar to Japanese, this principle accounts for those cases of Turkish WH-construction in which the extraction of 0-governed element out of a complex NP is sanctioned while extraction of an adjunct Wh-phrase is not. Thus, the ungrammaticality of 1b below is explained in terms of the non-identity of the categories of the dominating node and the Wh-phrase:

1

a  [Kim-in yaz-diğ-ı ] mektub-u oku-du-n?

Who-Gen write-Nom-3Poss letter-Acc read-Past-2sg

*‘Who did you read [the letter [t write ] ]?’

b  *[Adam-in neden yaz-diğ-ı ] mektup uzun?

Man-Gen why long

*‘Why is [the letter [the man wrote t ] ] long?’

The question that arises is why it is that pied piping of an adjunct clause to SPEC of the matrix clause at LF is allowed in those cases where the phrase to the matrix SPEC position is blocked in those cases in which the clause internal movement within the relative clause is that of adjunct. And for this, I submit that the principle of feature percolation accounts for the grammatically of those structure in which an
adjunct has been ‘moved out of’ an aadjunct clause. The Wh-phrase that moves to clause initial position within its clause percolates its [+Wh] feature to the dominating node, since the nodes are categorically identical.

Once the whole Cpi i.e. S’ of the adjunct clause, is identified as [+Wh], the whole clause can now move to an operator position for the matrix clause.

The feature percolation process and the pied-piping mechanism involving adjunct clauses can be sketched as follows:

(26) CP=S’
     SPEC                       C’
     [+WH]
     C                             S=IP
     NP             CP=S’              VP
     SPEC                       C’
     [+WH]
     C                               S
     [Q].......t.......

The grammatically of those sentences in which the clause where an adjunct has moved clause internally has been moved to the matrix SPEC position is explained in the form of the concept of tcategory identity. COMP will have the feature [-N] when it is filled with an adjunct Wh-phrase. When this is the case, the mechanism of the pipe piping will be able to apply moving the whole adjunct clause to the matrix COMP position since the whole clause will be marked [-N] but [+Wh]. Note that 0governed and A-position override the effect of category identity.
The ungarammaticality of those adjunct clauses in Turkish in which an adjunct Wh-phrase has been extracted is now obvious. These are in fact not counter-examples to the mechanism proposed, but are structures in which the government chain between the trace in the clause and its antecedent in the SPEC of the containing CP is blocked. The NEG element that is an inherent structural property of these constructions defines a minimal domain which blocks antecedent government of the empty category. Since the Wh-phrase is not 0-governed in its clause, hence not γ- marked, it needs to be antecedent governed. The presence of the NEG element in the SPEC of the containing clause does not allow the moved Wh-phrase to govern its trace. The ECP is violated; hence the ungrammaticality of these structures. Consider the following:

27

a *Sen [bulaşık-lar-ı nasıl yıka- [ma-dan] önce ] dışarı çık-tı-n?
You dish- pl-Acc how wash-Ger[neg-abl]before out go-Past-2sg

‘How did you go out [before washing the dishes t ]?’

b *Sen [bulaşık-lar-ı nasıl yıka- ma-dan ] dışarı çık-tı-n?
You dish- pl-Acc how wash-Ger[neg-abl] out go-Past-2sg

‘How did you go out [without washing the dishes t ]?’

Note that the gerundive suffix in the above examples contain an internal NEG element. This is NEG element defines a minimal domain within which external blocks antecedent government between the Wh-phrase in the SPEC of CP in LF and the trace in the adjunct clause. t is not properly governed; hence the ungrammaticality of the sentences.

Recall the those cases in which th Wh-phrase is 0-marked in DS are indeed grammatical. These are repeated here for convenience’ sake:

18

a [ [ Kim gel-meden ] önce ] dışarı çık-tı-n?
Who come-Ger before outside go-Past-2sg

‘Who did you go out [before t came ]?’

b [ [ Kim-i gör-meden ] önce ] dışarı çık-tı-n?
Who-Acc see-Ger

‘Who did you go out [before seeing t ]?’

c [[ Kim-le konuş-madan ] önce ] dışarı çık-ti-n?

Who-Com speak-Ger

‘With whom did you go out [before speaking t ]?’

Recall that the government blocking property of the NEG element was also observed in the impossibility of the application of Wh-movement in those structures in which the matrix SPEC was occupied by NEG (cf 18 ). Hence the ungrammaticality of 27 in accordance with the Minimality Condition as stated by Rizzi (1990).

NOTES

1 See Akar (1990) for contraints on the application of Scrambling rules to Wh-elements in Turkish.

REFERENCES


