A'- DEPENDENCIES IN TURKISH

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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 gramatically of the structures in 1a and 2a-b and the ungramatically of the structure in 1b.

1

    a   [[Kim-in yaz-dığ-ı]   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-dığ-ı] 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-ı   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

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opposing gramatically. It has gramatically 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 gramatically 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 copiesnthe 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, Iwould 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 thee 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 veerb 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 posssesion. 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 θ-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. Tehy have not moved to S-initial position as their English counterparts have.

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

4

        Akın [ben-im *ne zaman* gel-me-m-i   söyle-di?

        I-1Gen   what time   come-Nom-1Poss-Acc   say-Past

        'When did Akın 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 claus; its scope however is the matriix 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 laatter, 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* occus 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 gramatically 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-mış?

      Who who-Dat   what-Acc   sell-Rep

      'Who has sold what to whom?'

 b Kim-e kim ne-yi sat-mış?

 c Ne-yi kim kim-e   sat-mış?

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

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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 retricted 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-diğ-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-diğ-i]-ni unut-tu]

                    -Gen   -gen   se-Fut-Poss-Acc say-n-Poss-Acc

The construct in the gramatically judgements on 9a and 9b indicates that the rule resposible for moving the Wh-initial position in Wh-contructions is distinct from tthe 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 appliees to NPs to reorder constituents in the surface structure.

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

 The Q-particle mI

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 enitire sentence comes out as a declerative 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 constact 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 phonogically 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 succesive cyclic

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

10

  a Hasan [Uğur-un   ne -yi   iste-diğ-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-represantation 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 θ-governed. To be properly governed, i.e. [γ]-marked, it needs to be antecedent governed. Succesive 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 θ-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 wwith 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 θ'-governed category in A-position has been extracted out of a [....-(y)Ip......._mAdIğ-I] clause:

11   [[Hangi arabaa-nın [pahalı   ol-] duğ-u]- nu   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 θ-governed, but occurs in A-position as ssubject 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 [γ] marks the original trace at S-structure since the trace is in an A-position. But once [γ] 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 θ'-governed Wh-phrase is extracted out of a strong Wh-Island. In 12, the Wh-phrase is θ'-governed and the government chain is blocked by the occurance of a Wh-phrase in thee Spec of the embedded complement clause. Note that the attempted extraction of the θ'-governed Wh-phrase yields an ungrammatical result:

12   *[nasıl] [t'' [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 *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-tiğ-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 uttarance 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 uttarances as anwers to the question above indicates that in certain cases the Doubly Filled Comp Filter can be violated in Turkish:

13'

    a   Alev [Ahmet-in   ne-yi   seyret-tiğ-i] - ni   bil-iyor.

    b   Alev [kim-in futbol   maçı-nı seyret-tiğ-i]-ni   bil-iyor.

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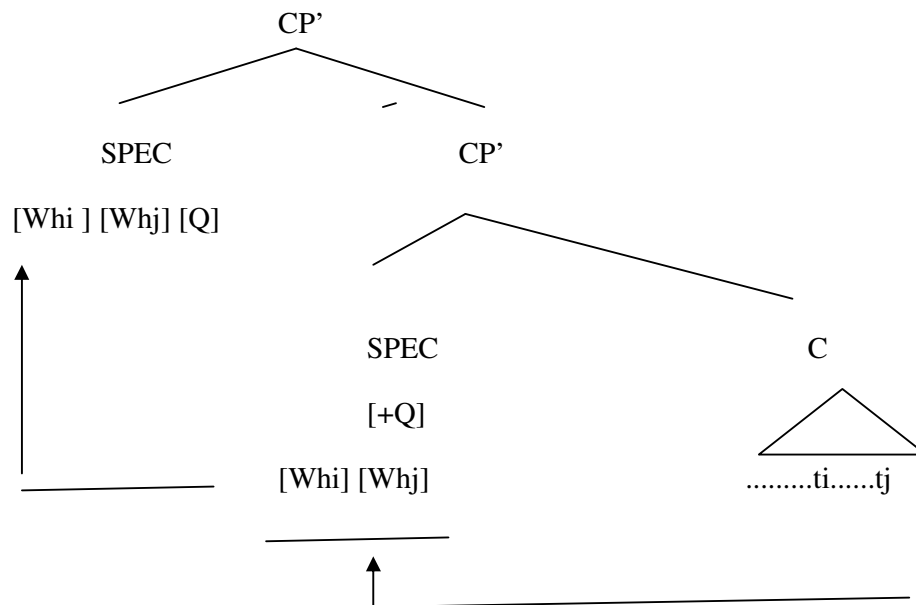
As can be observed, it is possible to move either one or both of the Wh-phrases out of the embedded clause. Further, as will be discussed below, it is also possible to move adjuncts out of Wh-islands in certain cases in Turkish.

Those cases in which θ-governed Wh-phrases are extracted out of Wh-islands when the matrix COMP is not filled wşt a phonologically realised Q-element are in fact only

marginally possible, being most commonly interprted as indirect questions: The following is such a construction:

15   Alev [Kim-in   ne-yi   seyret-tiğ-i] - ni   bil-iyor.

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-dığ-ı]-nı   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 gramatically 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-dığ-ı]- nı   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-dığ-ı]-nı   Akın   hatırl-ıyor.

        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 θ-governed Wh-phrase and VP-internal adjuncts out of those embeedded 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-dığ-ı]-nı   Akın   hatırl-ıyor.

Send-Nom-3Poss-Acc   remember-Prog

'Akın 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-dığ-ı-] nı

red   box-Acc   -Dat blue box-Acc   -Datsend-Nom3-Poss-Acc

        Akın   hatırl-ıyor.

          Remember-Prog

        *'Akın 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 sicnificant in Turkish Wh-constructions is that there seems to be an asymmetry in the gramatically of those cases in which a VP-internal adjunct crosses a θ-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-dığ-ı]- nı   hatırl-ıyor?

            -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-dığ-ı-] nı   hatırl-ıyor.

Dishes-   Acc quicly   wash-nom-3Poss-Acc

'Hasan remembers that Alev washed yhe dishes fast.'

b   Hasan [Alev-in bulaşıklar-ı nasıl   yıka-dığ-ı-] nı   hatırl-ıyor.

Dishes-   Acc how   wash-nom-

'Hasan remembers Alev washed the dishes how.'

c   Hasan [Alev-in ne-yi   çabuk   yıka-dığ-ı-] nı   hatırl-ıyor.

what-Acc   fast   wash-nom-

'Hasan remembers Alev washed what fast.'

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

??Ayşe [parti-ye kim-in gel-   ip gel   me-diğ-i]- ni   bil-m-iyor?

Party-Dat who-Gen come-Gen come-Neg-Nom-3Poss-Acc   know-Neg-Prog

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

Subjacency violations

Subjacency

Although the apperant violations of Subjcency 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 Subjaceny. 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 s,milar mechanism has been proposed by Nisdigauchi (1990) for Japanese to account for 'extraction' of Wh- phrases out of complex NPs. It will be argued that the process iss 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 apperant violations of strong islands-the complex NP and the Adjunct Island condition on Wh-constructions respectively. In 1a and 2a, long Wh-movement has gramatically extracted a θ-governed Wh-phrase out of a Complex NP and an adjunct island respectively. The application of succesive cyclic movement to θ'-governed categories in 1b and 2b, on the other hand, has yielded opposing grammatically. While an adjunct has been gramatically 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 domaain at LF.

Although in 11, the adjunct clause is a BC and a barrier and IP inherits barrierhood, the questions are grammatical:

19

    a   [Kim-le   görüş me-den önce]   uğra- dı-lar?

            Who-Com   speak-Neg-Abl before stop   by-Past-pl

            'Whom did they stop by [before speaking]?'

    b   [Kim-i   gör-me-den önce]   ayrıl-dı-lar?

            Who-Acc see-Neg-Abl before   leave-Past-pl

            'Whom did they leave [before seeing]?'

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 θ-governed and θ'-governed catgories out of postpositional clauses, 21a-c of θ'-governed categories out of gerundive clauses. The following illustrates that extraction of θ-governed Wh-phrases is also possible out of gerundive clauses:

21

d   Kız   kim-e bağır-ırken]   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 approprriate responses to the questions to 20c and 21a-b respectively:

20'

a   güzel güzel.

Nicely nicely.

b   güzel güzel şarkı söyledikten 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

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 θ-governed categories is free of those adjunct clauses that otherwise block
the extraction of θ'-governed categories:

23

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-tı-n?

                Who-Com   speak-Ger

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

Thus, θ-governed seems to be a sufficient but not a necessary factor in extracting Wh-phrases Wh-phrases out of islands in Turkish. What is significant is that θ-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 θ-and a θ'-governed category has been 'extarcted' out of a complex NP containing a relative clause in 24a and 24b rspectively and a θ'-governed category in A-position in 24c:

24

        a   [Kim-in   yaz- dığ- ı]   mektup   kaybol-muş?

              Who-Gen write-Part-3Poss letter   lose-past

              'The letter who wrote is lost'

        b   *[Ahmet-in nasıl yaz-dığ- ı]   mektup   kaybol-muş?'

        c   [[[Kim –in büyük ol-duğ-u-] nu   düşün-en] adam-ı] dinle-di-n?

              Who-Gen   big   be-Nom-3Poss-Acc think-Part man-Acc listen-Past-2sg

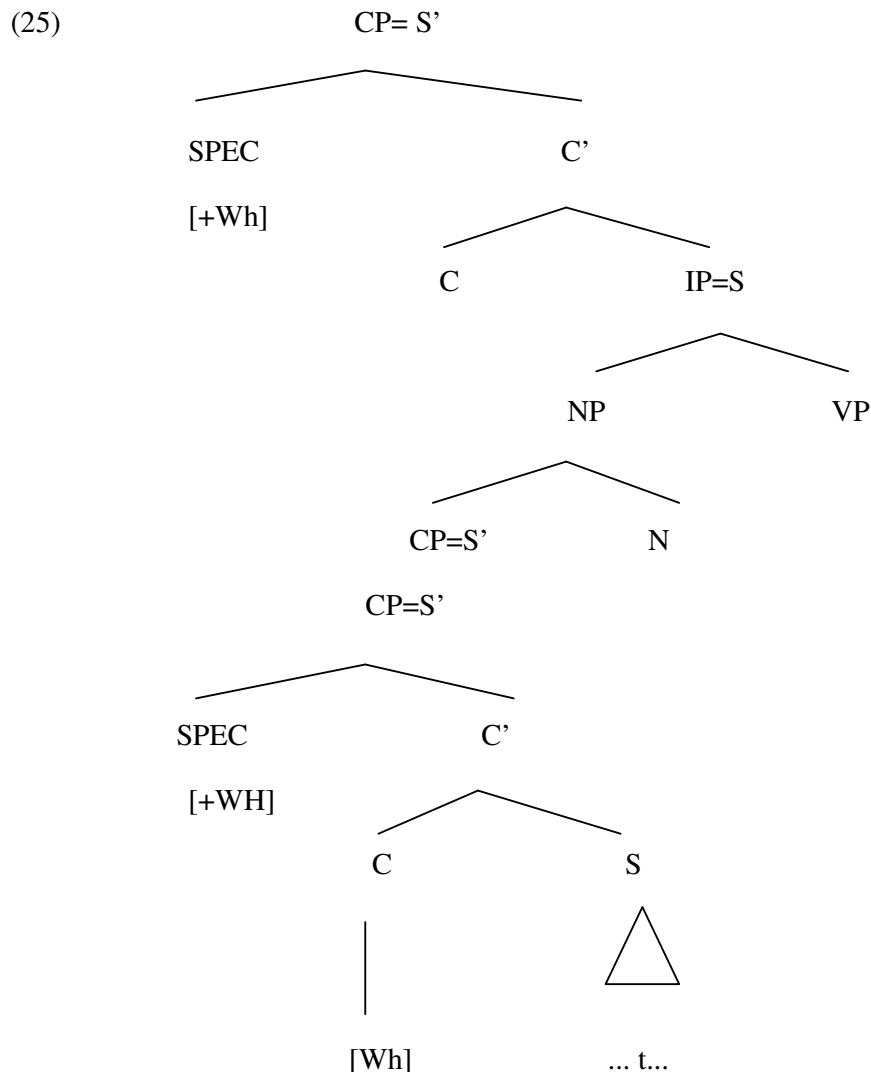   'Who did you lsten to [the man [who thought [t is great]]]?'

The grammaticaly of 24a and 24c as opposed to teh ungrammatically of 24b indicates that θ-government and A-position are crucial for the exraction 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 θ-governed categories as opposed to the non-extractibility of θ'-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 apperant 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 teh 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 Subjaceny. The pied-piping mechanism can be schematized as below:

(25)

```
                        CP= S'
              ┌───────────┴───────────┐
           SPEC                        C'
          [+Wh]                   ┌─────┴─────┐
                                  C           IP=S
                                        ┌───────┴───────┐
                                       NP                VP
                                  ┌─────┴─────┐
                               CP=S'          N
                            CP=S'
                   ┌───────────┴───────────┐
                 SPEC                        C'
                [+WH]                   ┌─────┴─────┐
                                        C           S
                                        │          △
                                       [Wh]       ... t...
```

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 principleof categorical identity to account for the difference in the gramaticality of those Japanese complex NPs out of which θ-and θ-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 th 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 θ-governed Wh-expression and it will be [-N] if it is filled with adjunct. If the latter iss the case, the percolation of [+Wh] to the immediately domanating 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 Japaanese, this principle accounts for those cases of Turkish WH-contruction in which the extraction of θ-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:
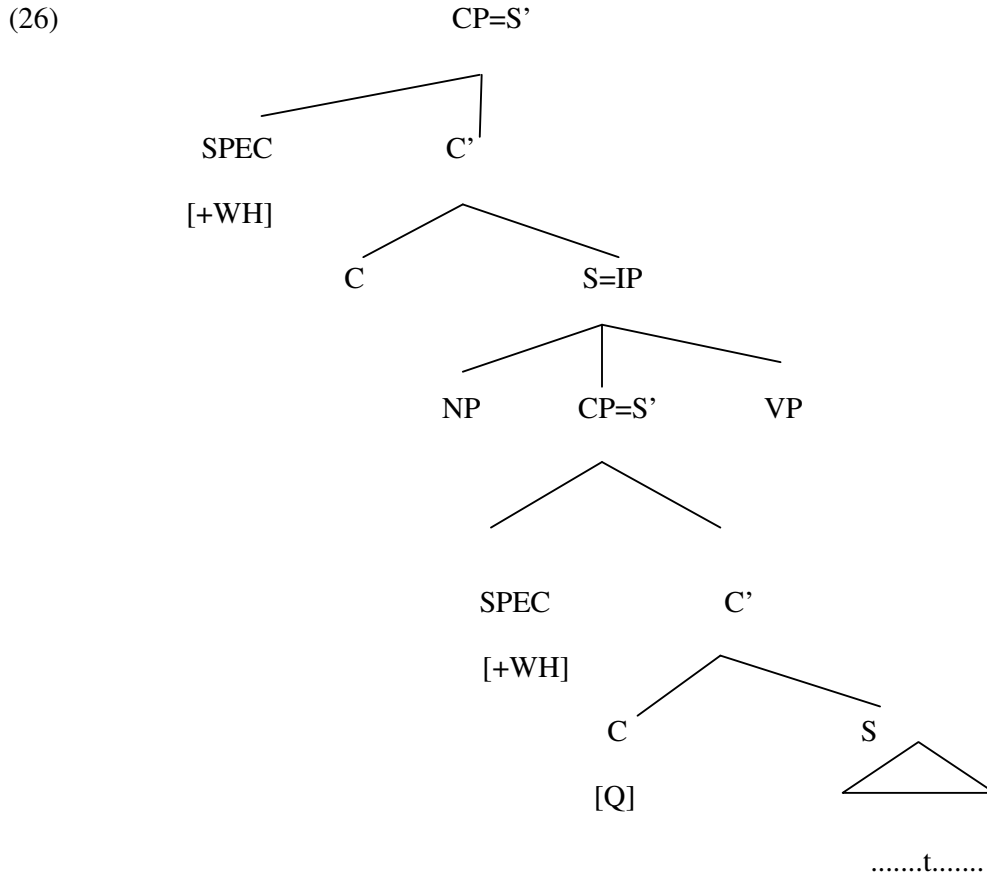
1

    a   [Kim-in   yaz-dığ-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-ın   neden yaz-dığ-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 schetised as follows:

(26)

```
                          CP=S'
                 ┌─────────┘│
              SPEC         C'
             [+WH]        ┌─┴──────┐
                         C         S=IP
                              ┌─────┼──────┐
                             NP   CP=S'    VP
                                 ┌──┴──┐
                               SPEC    C'
                              [+WH]   ┌─┴────┐
                                     C       S
                                    [Q]      △
                                         .......t.......
```

The gramatically of those sentences in which the clause where an adjunct has moved clause internally has been moved to the mayrix SPEC position is explained in the form of the concept of tcategorial identitiy. 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 matrıx COMP position since the whole clause will be marked [-N] but [+Wh]. Note that θgovermed and A-position override the effect of category identitiy.

Apparent exceptions

The ungarammatcicality 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 containinig CP is blocked. The NEG elemet that is an inherent structural property of these constractions defines a minimal domain which blocks antecedent government of the empty category. Since the Wh-phrase is not θ-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 whichn external blocks antecedent goveernment 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 θ-marked in DS are indeed grammatical. These are repeated here for conveince' 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-tı-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.

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