The Role of the Subject/Non-Subject Distinction in Determining the Choice of Relative Clause Participle in Turkish

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1. Relativization in Turkish: Introduction and Background

Turkish relative clauses are participial constructions in which the verb of the relative clause appears in a non-finite form. Turkish being a canonical SOV language, relative clauses precede their heads and relativization is accomplished by deleting the target in the relative clause which is understood as coreferent with the head.

Examples (2a) and b below are relative clauses formed on the subject and object respectively of the transitive sentence in (1):

(1) The snake ate the squash.
Yılan labağı yedi.  
Snake squash-ACC eat-PAST

(2a) the snake that ate the squash
Ø labağ-ı yiyen yılan  
Snake squash-ACC eat-SP snake

b. the squash that the snake ate
yılan-ân Ø ye-diğ-1  
Snake GEN eat-OP-POSS squash

Notice that in (2a), where a subject has been relativized, the verb of the relative clause (henceforth RC) appears with the participial suffix -(y)an whose phonological shape varies according to regular phonological rules like vowel harmony. RC's constructed in this way are called 'subject participle' (SP) relative clauses.

In (2b), where the object has been relativized, the verb of the RC is suffixed with the participle -DIK followed by a possessive suffix. The possessive suffix agrees in person and number with the subject of the RC which appears in the genitive. We call this the 'object participle' (OP) construction.

The two types of RC are represented schematically below.

SP Construction  
(2a)  

OP Construction  
(2b)  

[Diagram of sentence structures showing the difference between SP and OP constructions]
We see in the simple cases that the SP appears when the target of relativization is the subject of the RC and the OP appears when the target is a non-subject. This statement is not entirely adequate, however. Genitive NPs are freely relativizable in Turkish, and when we relativize the genitive in a sentence like (3) below, we get SP as in (4a). Notice that the target of relativization here is not a subject but a genitive NP attached to a subject.

(3) The man's snake ate the squash.
    Adam-ın yılan-ı kabağ-ı ye-di.  
    man-GEN snake-POSS squash-ACC eat-PAST

(4) The man whose snake ate the squash
    a. Ø yılan-ı kabağ-ı yi-yen adam  
        snake-POSS squash-ACC eat-OP POSS 
         adam 
        man
    b. Ø yılan-ı-nın kabağ-ı ye-dig-i  
        snake-POSS-GEN squash-ACC eat-OP POSS 
         adam 
        man

The simple principle also fails to account for another class of cases, discussed in Underhill (1972). These are cases where the target of relativization is a genitive NP attached to a locational or directional phrase in a sentence with an indefinite subject. Consider sentence (5), which contains the ablative phrase kepühun altändan. This sentence has two readings: one in which the subject is interpreted as an indefinite as in 'Water is flowing under the door' and another in which the subject is interpreted as a definite as in 'The water is flowing under the door'.

(5) Water is flowing under the door.
The water is flowing under the door.
    Kapı-nın alt-ın-dan su ak-iyor.
    door-GEN bottom-POSS-ABL water flow-FREES

It turns out that choice of participial construction correlates with the definiteness of the subject. Relativizing the genitive NP kepühun in (5) results in the SP when the subject of the RC is indefinite. However, the OP appears if the subject is definite. These facts are illustrated in (6a) and b below.

(6a) the door under which water is flowing
    Ø alt-ın-dan su ak-an kapı  
        bottom-POSS-ABL water flow-SP door

(6b) the door under which the water is flowing
    Ø alt-ın-dan su-yun ak-tig-i  
        bottom-POSS-ABL water-GEN flow-OP POSS 
        door

In seeking an explanation for this phenomenon, Underhill noted first that if the subject in sentences like (1) is to be interpreted as an indefinite, it obligatorily appears in immediate pre-verbal position. If it is to be interpreted as a definite, this displacement is optional. He therefore proposed that indefinite subjects are displaced from initial position by an obligatory rule of Indefinite Movement which applies before relativization. Definite subjects may be displaced by an optional rule of scrambling which follows relativization. He furthermore suggested that the genitive marking is assigned to NP's by a transformational rule and therefore that these NPs are underlyingly caseless. Underhill then proposed the following principle: choose the SP when the target of relativization is a caseless NP in initial position at the time of RC formation. Otherwise, choose the OP.

To see how this principle works in conjunction with Underhill's assumptions about the rules involved, consider the diagram given below. In Case I, the target of relativization is a subject NP which is sentence-initial and caseless at the time of RC formation. In accordance with the principle, the SP results. In Case II, the target of relativization is a genitive NP attached to a subject; such an NP is initial and caseless given Underhill's assumptions, and again the principle correctly predicts the SP. In Case III, the RC is formed on a sentence with an indefinite subject; this subject is moved to immediate pre-verbal position prior to relativization, leaving in initial position a genitive NP attached to an oblique phrase. This genitive NP will be caseless at the time of RC formation, according to Underhill's assumptions, and the SP is again correctly predicted.

Case I: Ø Subject  Case II: Ø GEN on Subject

\[
\begin{array}{c}
\text{NP} \\
\text{NP} \\
\end{array}
\]

Case III: Ø GEN on Oblique Phrase In S with INDEF Subject

\[
\begin{array}{c}
\text{NP} \\
\text{NP} \\
\end{array}
\]

Underhill's proposal is summarized below.

Underhill's Proposal

Assumption: Genitive NPs are underlyingly caseless.

a. Indefinite Movement precedes relativization.
b. Scrambling follows relativization.
c. Participles are chosen according to the principle:
   if the target of relativization is a caseless NP in initial position at the time of RC formation, the SP construction is chosen; otherwise, the OP is chosen.
The theoretical interest of Underhill's analysis is that the factors determining the choice of participial construction are linear position and case-marking. Thus, the distinction between subject and non-subject which seemed to be the determining factor in the simple cases turns out to be irrelevant under Underhill's analysis. The relativization transformation can be written entirely within the framework and formalism of Standard Theory.

For an immediate counterexample to Underhill's proposal, consider the sentence (7). It contains an indefinite subject in immediate pre-verb position and two oblique phrases: Kapnän alt̂̈ndan and yerin üzeringine.

(7) Water is flowing under the door onto the floor.  
Kapnän alt̂̈ndan yerin üzeringine.  
Puur POSS-DAT water flow-PRES  

Both genitive NPs in these oblique phrases can be relativized and while they both may be caseless at the time the rule applies, they cannot both be clause-initial. Thus, Underhill's proposal would predict that relativization of one of the genitive NPs should result in the SP while relativization of the other genitive NP should result in the OP. However, a and b show, relativization of either NP requires the SP.

(8a) a. the door under which water is flowing onto the floor  
Ø alt̂̈ndan yerin üzeringine.  
Puur POSS-DAT water flow-SP door  

b. the floor onto which water is flowing under the door  
Kapnän alt̂̈ndan yerin üzeringine.  
Puur POSS-DAT water flow-SP floor  

It is clearly impossible to modify Underhill's proposal so that it will be compatible with these facts, and in the remainder of this paper we will demonstrate that Underhill's assumption (c), that the choice of RC participle is determined by linear position at some point in derivations, must be abandoned. We will show that the subject/non-subject distinction is indispensable in the statement of conditions for the choice of RC construction.

In particular, we claim that the primary principle governing choice of participial construction is that subjects relativize with the SP and non-subjects relativize with the OP regardless of case or position.

We will also establish a second principle which accounts for relativization of non-major constituents in the RC:

The Mother Node Principle (MNP)

If a subconstituent of a major constituent of the RC is relativized, the participle is chosen which would be appropriate for relativization of the major constituent itself. [That is, for the simple cases, if the mother node dominating the target is the subject of the RC, the SP is chosen; otherwise, the OP is chosen.]

2. Relativization of Subconstituents

2.1 We noted earlier that relativization of a genitive NP attached to a subject is done with the SP. These cases are correctly accounted for by Underhill's proposal since the target is sentence-initial and caseless at the time of RC formation. However, his proposal cannot account for relativization of the genitive NP adapam in (9). Notice that it is attached to an indefinite subject which has undergone shift to immediate pre-verbal position. Hence at the time of relativization, this NP is not clause-initial and Underhill must predict the OP.

(9) One of the man's snakes ate the squash.  
Kabah-ad  adam-in bir ıylan-ad ye-dij squash-ACC man-GEN a snake-POSS eat-PAST  

However, as we see in (10), the OP is impossible.

(10) the man one of whose snakes ate the squash  
Kabah-ad  Ø bir ıylan-ad ye-dij squash-ACC a snake-POSS eat-OP POSS man  

The MNP correctly accounts for use of the SP here since the genitive target is a subconstituent of a major constituent functioning as subject of the RC. In (11) below, we see a genitive NP attached to a non-subject in non-clause-initial position.

(11) The snake ate the man's squash.  
Yılan adapam  kabah-ad  ye-dij  snake-ACC man-GEN squash-POSS-ACC eat-PAST  

This NP may be relativized and the result, which is consistent with Underhill's proposal, is the OP as seen in (12).

(12) the man whose snake the snake ate  
Ø ıylan-ad  kabah-ad  ye-dij-ı  snake-GEN squas-POSS-ACC eat-OP POSS  

a. ıylan-ad  Ø kabah-ad  ye-dij-ı  snake-GEN squas-POSS-ACC eat-OP POSS  

b. ıylan-ad  Ø kabah-ad  ye-dij-ı  snake-GEN squas-POSS-ACC eat-OP POSS  

But now consider what happens if the subject of a sentence like (11) is indefinite, as in (13). The subject shifts to immediate pre-verbal position, exposing the genitive NP in initial position.
(13) A snake ate the man's squash.
Adam-GEN kabâgh-İn-i bir yâlan yâ-dî
man-GEN squash-POS ACC a snake eat-PAST

According to Underhill's proposal, we should expect relativization of the genitive NP adam-În-Î in sentences like this to be done with the SP. As shown in (14), it is not: the genitive NP attached to a non-subject in a transitive construction relativizes with the SP. This result is again consistent with the MNP.

(14) the man whose squash a snake ate
a. Ø kabâgh-în-i bir yâlan-în
squash-POS ACC a snake-GEN
ye-dî-î adam
eat-OP POSS man
b. *Ø kabâgh-în-i bir yâlan yi-yen adam
squash-POS ACC a snake eat-SP man

We conclude that in the case of genitive targets in general the position of the target is irrelevant in choosing the RC participle. What is relevant is whether the NP to which the target is attached is a subject or non-subject in the RC.

2.2 We will now show that the subject/non-subject distinction is also crucial in predicting RC participles when the target of relativization is within a clause embedded in the RC.

Consider example (15), which is a sentence with a sentential subject:

(15) That the snake ate the squash is doubtful.
Yâlan-în kabâgh-î yâ-dî-î gâpheli
snake-GEN squash-ACC eat-PART POSS doubtful

Subordinate clauses in Turkish are participial, thus, the subject of the sentential subject is marked genitive and a participial suffix appears on the verb, followed by the possessive marker, which agrees in person and number with the subject.

Sentential subjects in SOV languages are not extraction islands, and the NPs in them are accessible to relativization. Consider then, relativization of yâlan, the subject of the sentential subject in (15). Underhill's proposal correctly predicts SP as in (15).

(16) the snake which it is doubtful the snake ate the squash
a. Ø kabâgh-î yâ-dî-î gâpheli
squash-ACC eat-PART POSS doubtful
ol-în yâlan
be-SP snake
b. *[SP]

His proposal further predicts that the non-subject kabâgh-Î will be relativized with the OP since it is non-initial and case-marked. The MNP, on the other hand, claims that kabâgh-Î will be relativized with the SP since it is part of a major constituent functioning as subject of the RC. As we see in (17), the MNP makes the correct prediction and Underhill's proposal makes the wrong one: relativization of kabâgh-Î is done with the SP.

(17) the squash which it is doubtful the snake ate
a. yâlan-în Ø yâ-dî-î gâpheli
snake-GEN eat-OP POSS doubtful
b. *[OP]

In fact, it is the case that any NP in a sentential subject, regardless of its case or position, is relativized with the SP. This is illustrated below.

It is clear once again that no movement hypothesis can save Underhill's proposal. All the NPs in (15) are definite so the rule of Indefinite Movement cannot be involved.

In the following sections we examine several cases which do not serve to distinguish the two proposals, simply to show that the MNP continues to make the right predictions. We consider it established that Underhill's proposal is basically wrong and that the choice of RC participle is determined by a principle referring to hierarchical structure.

2.3 In this section we show that the MNP correctly accounts for relativization into sentential objects. Consider the sentence in (18), which contains an object clause marked in this by now familiar manner.

(18) Hasan believes that the snake ate the squash.
Hasan-în yâlan-în kabâgh-î yâ-dî-îken-î
snake-GEN squash-ACC eat-PART POSS-ACC
san-ayor believe-PRES.

As we see in (19), relativization of the subject of the sentential object is accomplished with the OP.

(19) the snake that Hasan believes ate the squash
a. Hasan-în yâlan-în Ø yâ-dî-îken-î
-GEN snake-GEN eat-PART POSS-ACC
san-ayor believe-OP POSS squash
b. *[SP]

In (20), a non-subject in the sentential object is relativized and the OP again results.
The generalization is exceptionless: relativization of anything in a sentential object requires the OP.

A further comment about relativization into sentential objects is in order. Recall the facts about relativization into sentences like (21) which contain an indefinite subject shifted to immediate pre-verbal position and an oblique phrase exposed in initial position. We saw that relativization of the genitive NP in such cases requires the SP, as shown in (22).

(21) Water is flowing under the door.
Kapı-nın alt-ın-dan su ak-şyor.

(22) the door that water is flowing under
a. 0 alt-ın-dan su ak-on kapı
bottom-Poss-ABL water flow-SP door
b. *[SP]

If the MNP is correct, then it should be the case that when (21) is embedded as a sentential object, relativization of the genitive NP kapı-nın should not be done with the SP but with the OP. This is exactly what happens: a RC formed on sentence (23) below with kapı-nın as target is grammatical only with the OP as we see in (24).

(23) I said that water is flowing under the door.
Kapı-nın alt-ın-dan su

(24) the door that I said water is flowing under
a. 0 alt-ın-dan su ak-şiyor-ınkapı
bottom-Poss-ABL water flow-SP door
b. *[SP]

The MNP makes the correct prediction in all cases.

2.4 For a final test of the MNP, we experimented with relativization into adverbial clauses like the one in (25) and appositive clauses like the one in (26).

(25) We were sad because the man died.
Biz adam 81-duş-ı
we man die-PART-POSS because sad-PART-1p

(26) I believe the rumor that the man ate the eggplant.
Ben adam-ın patiçan-ı ye-diş-i
I man-GEN eggplant-ACC eat-PART-POSS
söylestisin-e inan-şyor-um.
rumor-DAT believe-PL PRES-1

We found, as expected, that NP's in adverbial clauses are relativized with the OP as in (27).

(27) the man who we were sad because (he) died
a. bir-im 81-duş-ı ipin ıznil-duş-umüz
we-GEN die-PART-POSS because sad-0P-POSS

b. *[SP]

NP's in appositive clauses which function as non-subjects in the RC relativize with the OP even when the target is itself a subject NP as in (28).

(28) the man who I believe the rumor that (he) ate the eggplant
a. ben-im 0 patiçan-ı ye-diş-i
I-GEN eggplant-ACC eat-PART-POSS
söylestisin-e inan-şım adam
 rumor-DAT believe-0P-POSS man

b. *[SP]

The MNP appears to be exceptionless.

3. Relativization into Subjectless Clauses

There exists a class of Turkish sentences which lack subjects entirely. These are impersonal passives like the one given in (29), the source of which is the active intransitive sentence given in (30).

(29) One exits to the street by this door.
Bu kapı-dan sokça-a şık-eş-ı
this door-ABL street-DAT exist-PASS-AOR

(30) Pro bu kapı-dan sokça-a şık-ar.
this door-ABL street-DAT exist-AOR

Not only is there no direct object in (30) but there is also no reason to believe that any of the oblique objects in that sentence have become the derived subject of (29).

Breckenridge (1975) argues that impersonal passive sentences involve application of passive without promotion of anything to subject status. Her arguments are straightforward: given any discoverable tests of subjecthood in Turkish, NP's in impersonal passives don't pass them. They don't undergo subject-like raising, they don't trigger verb agreement, they don't lack overt case-marking, and they can't be deleted by Equi.5 When we consider relativization of targets in impersonal passives, we find that no matter what constituent is relativized, only the SP is possible. Thus, the ablative NP kapı-dan in (23) relativizes with the SP and so does the dative NP sokça-a.
(31) the door that one exits to the street by
   a. þ sokâš-a qâk-kî-ân kapî
      street-DAT exit-PASS-SP door
   b. *[OP]

(32) the street which one exits to by this door
   a. bu kapî-dan þ qâk-kî-ân sokak
      this door-ABL exit-PASS-SP street
   b. *[OP]

It appears that we need to state the following additional principle:

The No-Subject Principle (NSP)

If there is no subject in the RC at the time of RC formation, the OP construction is impossible and only the SP construction is chosen.

4. Relativization into Clauses with Indefinite Subjects

At this point, we reconsider sentences like (5), repeated below, which contain shifted indefinite subjects and oblique phrases in initial position.

(5) Water is flowing under the door.
    Kapî-nân altân-dan su ak-iyor.
    door-GEN bottom-POSS-ABL water flow-PRES

As we pointed out in Section 1, the genitive NF kâpînîn is relativized with the SP. This requires explanation since the genitive is part of a non-subject phrase and in general non-subjects and anything in them relativize with the OP. Underhill's proposal was designed to account for this but we have had to reject that proposal.

In this section, we will examine relativization into such constructions more carefully, and show that in general no NF in an indefinite-subject sentence relativizes with the OP. The situation is thus parallel to that in impersonal passive constructions where there is no subject and the NSP applies. We will propose that the same principle applies in the cases discussed here because the indefinite subjects in these sentences have undergone a demotion process which leaves the RC subjectless at the point when RC formation applies.

First note that, contrary to Underhill's assumptions, it is not only genitive targets in such constructions which relativize with the SP:

(33) an airplane on which fire broke out
    yangân qâk-an bir uçak
    fire break out-SP a plane

(34) the village to which electricity is being brought
    elektrîk getir-ilân key
    electricity bring-PASS-SP village

Further, recall that when there are two oblique phrases in an indefinite-subject construction, the SP is used as never which contains the target of relativization:

(35) A bee stung the man's daughter.
    adam-ân kîz-ân-â ara sok-tu.
    man-GEN daughter-POSS-ACC bee sting-PAST

We find that relativization in sentences like this results in the SP, as in (36):

(36) the man whose daughter a bee stung
    a. þ kîz-ân-â ara sok-an adam
        daughter-POSS-ACC bee sting-SP man
    b. *[OP]

In these examples, as in examples like (5), we propose that the subject has not only moved, but has been demoted from subjecthood, and that the sentences are subjectless at the time of RC formation.

We thus suggest that Underhill was essentially correct in proposing that something happens to indefinite subjects in such cases which allows other constituents to undergo SP relativization. He was mistaken in taking the crucial factor to be linear position.

5. In conclusion, we have argued that the subject/non-subject distinction is essential in determining
which participial construction results when a major constituent of the RC is relativized. Specifically, we get the SP when a subject is relativized and we get the OP when a non-subject is relativized and the RC contains a subject. If there is no subject in the RC, the SP is required. Additionally, we have shown that the MNP is exceptionless. Subconstituents invariably relativize with the participial construction appropriate for relativization of the major constituent which contains them.

We have demonstrated conclusively that the choice of RC participle in Turkish cannot be determined exclusively by reference to the linear position (and case-marking) of the target. The MNP requires reference to hierarchical relations in the relative clause structure, and the NNP refers crucially to the absence of a subject in the RC at the time of RC formation. We conclude that the notion 'subject', however defined, is crucial to the determination of relative clause participles in Turkish.

Footnotes

1 In accord with standard practice in the citation of Turkish suffixes, we use capital letters to represent segments which vary according to regular phonological alternations.

2 These assumptions certainly represent an over-simplification, for the position of indefinite NP's in Turkish sentences is dependent on several factors, and their distribution is too complex to be accounted for under Underhill's assumption of one obligatory indefinite movement rule. We do not take up these complications here, because to do so would only detract from the clarity of the exposition; they are examined in some detail in Hankamer and Knecht (forthcoming).

3 With two exceptions: a 'bare-complement' type which simply embeds a finite clause as a complement to certain verbs; and the ki-clause construction which is borrowed from Persian, where a finite clause is introduced by the complementizer ki. Neither of these constructions will appear in the discussion here.

4 Some adverbial clauses are extraction islands in Turkish and others are not (see Tatö 1974). We have restricted our attention to the ones which allow extraction.

5 Another argument that the oblique NP's in impersonal passive constructions are not subjects is based on an observation brought forth in Knecht (1976): that the rule of comparative deletion in Turkish is constrained so that it cannot take a subject as target. This rule can delete the oblique NP's in impersonal passive constructions, indicating once more that they are not subjects.

6 Several examples of this kind are given in Lewis pp. 262-263, from which these are paraphrased. Underhill was aware of the existence of these examples, but dismissed them as 'proverbial'. We have found, however, that our informants regard them as perfectly normal, and that (when the subjects are interpreted as indefinite) only the SP and never the OP construction is possible.

7 This term is due to Postal & Perlmutter (cf Postal and Perlmutter (forthcoming)), and refers to the loss of status in a hierarchy of grammatical relations.

References


Postal, P. and D. Perlmutter (forthcoming) Relational Grammar.


Underhill, Robert (1972) "Turkish Participles" Linguistic Inquiry III:1.