Arguing against subject incorporation in Turkish relative clauses

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Abstract

Proposals have been made that Turkish exhibits properties of both object and subject incorporation. However, neither the head-incorporation analysis for object incorporation nor the pseudo-incorporation analysis for subject/agent incorporation can account for data found in Turkish relative clauses. Turkish nominals that are specific must raise for case, and this movement obeys Minimality. Non-specifics must remain in situ. What has been deemed instances of (pseudo-)incorporation are cases where a nominal cannot raise, while examples to the contrary can be explained by a raising requirement on specifics.

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1. Introduction

Examples such as (1) and (2) (from Öztürk, this volume) have been cited as evidence of object and subject incorporation in Turkish. In contrast to their counterparts in (1b) and (2b), the direct object in (1a) and the subject in (2a) must receive a non-specific interpretation and must follow the adverb ‘fast’ and the dative ‘to the village’, respectively.

(1) a. Ali (hızlı) kitap okudu.
   Ali fast book read
   ‘Ali read a book/books fast.’ (my gloss)

   b. Ali kitab-ı (hızlı) okudu.
   Ali book-ACC fast read
   ‘Ali read the book fast.’

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I will show that an incorporation analysis is not necessary to explain these structures and that an incorporation analysis fails to explain the data found in Turkish relative clauses. In this section, we look at the two different types of Turkish relative clauses and the conditions under which they are licensed. In section 2, we apply the incorporation analysis to explain non-subject relativization with the Subject Relative Clause form. In section 3, I present an analysis based on intervention effects on movement and show that the incorporation analysis fails to account for many of the cases of non-subject relativization. I conclude in section 4.

1.1. Looking at Turkish relative clauses

Turkish has two ways of forming relative clauses (RC). The Non-Subject Relative Clause (NSR) verbal form is required when the RC head is other than the subject of the RC, as in (3a) and (4a), and is disallowed when the relativized element is the subject of the RC, as in (3b) and (4b). The Subject Relative (SR) verbal form is obligatory whenever the subject is relativized, as in (5a)–(5b). The verb in the NSR agrees with the subject which, when overt, bears genitive case morphology; there is no agreement morphology in the SR.

(3) a. [çocuğ-un Øi kır-dığ-ı oyuncak-i] oyuncak-i
   child-GEN Ø break-NSR-3s toy
   ‘the toy that the child broke’

   b. *[Øi oyuncag-ı kır-dığ-ı] çocuk-i
      Ø toy-ACC break-NSR-3s child
      Intended: ‘the child that/who broke the toy’

(4) a. [bayan-ın Øi otur-duğ-u] divan-i
    lady-GEN Ø sit-NSR-3s sofa
    ‘the sofa that the lady is sitting on’

   b. *[Øi divan-da otur-duğ-u] bayan-i
      Ø sofa-LOC sit-NSR-3s lady
      Intended: ‘the lady that/who is sitting on the couch’


2 Turkish is a consistently head-final language, and as expected, the Turkish RC is pre-nominal.

3 The Turkish examples appear in Turkish spelling and iconography. Capital letters indicate positions that undergo vowel harmony and consonantal assimilation. The SR /–An/ form can appear as ‘-an’ or ‘-en’ and the NSR /–DIK/ form can appear as ‘-dik’, ‘-dığ’, ‘-tik’, ‘-tığ’, with the nucleic vowel alternating in roundness and laxness.

4 Unlike Japanese GA/NO conversion (Hiraiwa, 2001, and references therein), the NSR subject can only be genitive.

5 A reviewer points out that NSR clauses look like gerundive possessives because the verb bears possessive morphology and the subject genitive case. A discussion of this intuition and other questions such as why there are two relativization strategies in Turkish, what triggers the different verbal morphemes, and why the subject in the NSR bears genitive case is tangential to the issue being discussed here and not possible within the space of this paper.
The SR is also acceptable when the RC relativized element is not the subject, but only when the subject is non-specific, as in (6a), (7) and (8). (See fn. 1, as well as Özsoy, 1987, and Kennelly, 1997.) When the RC subject is specific, the NSR form must be used, (6b), and the SR form is unacceptable, regardless of whether or not the subject bears overt case, as shown in (6c).  

(6) a. [gemi yanaş-an] liman  
   ship sidle-SR harbor  
   ‘the harbor that a ship is sidling up to’  

b. [gemi-nin yanaş-tığ-i] liman  
   ship-GEN sidle-NSR-3s harbor  
   ‘the harbor that the ship is sidling up to’  

c. *[gemi(-nin) yanaş-an] liman  
   ship(-GEN) sidle-SR harbor  
   Intended: ‘the harbor that the ship is sidling up to’  

(7) [mısır yetiş-en] tarla  
   corn grow-SR field  
   ‘the field where corn grows’  

(8) [fare çık-an] delik  
   mouse come.out-SR hole  
   ‘the hole that mice come out of’  

2. Previous analyses

We saw that the SR form was required for subject relativization (cf. (5)). The SR is also obligatory when relativizing from an impersonal passive construction where there is no external argument, as in (9a). The absence of a canonical or thematic subject in the clause permits the relative head to assume the syntactic subject position of [Spec, TP], 7 from which it then relativizes thereby triggering the SR form. The NSR is not possible for impersonal passives and no permutations of the NSR example in (9b) will save it.

(9) a. [Ø₁ Ankara otobüs-ün-e bin-il-en ] durak₁  
   Ø Ankara bus-CM-DAT board-PASS-SR stop  
   ‘the stop where the Ankara bus is boarded’  

b. *[Ø₁ Ankara otobüs-ün-e bin-il-dığ-i ] durak₁  
   Ø Ankara bus-CM-DAT board-PASS-NSR stop  
   (from Kornfilt, 1997a)  

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6 Throughout, I use the term “subject” loosely to refer to the nominal that would be the surface subject in the canonical S(O)V sentence regardless of the difference in the base-generated position which would be complement of the verb in unaccusatives, and presumably [Spec, vP] in unergatives and transitives. The term “syntactic-subject” is reserved for only those expressions that move to (or through) [Spec, TP].  

7 A movement driven by the EPP or Case, for example.
By extension, it has been suggested that the SR is licensed in non-subject RCs, as in (6a), because the subject incorporates into the verb yielding a structure analogous to the impersonal passive construction in (9a) (the “No-subject Principle” of Hankamer and Knecht, 1976).

The generalization, then, is that the SR form is licensed in RCs where (i) the canonical subject has been relativized; (ii) there is no external argument, as in impersonal passives; and (iii) the subject has incorporated into the verb. True to its name, the SR Subject Relative is triggered whenever the subject, or its syntactic replacement in [Spec, TP], has been relativized.

2.1. The head-movement incorporation analysis

Let’s first begin by demonstrating a head-movement incorporation account (along Baker, 1988) of non-subject SR relative clauses (Sezer, 1991; Kornfilt, 1995). The SR is licensed with unaccusatives (cf. (6)–(8) and (10) below) because the non-specific subject in unaccusatives is base-generated in the same position as a direct object. As sister to V° (Perlmuter, 1978; Burzio, 1986), the bare N’ subject can undergo head-movement, incorporating into the verb in a manner identical to object incorporation. This operation leaves the syntactic subject position of [Spec, TP] vacant, allowing another DP to move to this position. ⑧ Relativization of this syntactic-subject, i.e. relativization of the element in [Spec, TP], triggers the SR. Under this analysis, in the unaccusative RC in (10a), the non-specific subject çiçek ‘flower’ incorporates into the verb, and the locative nominal bahçe ‘garden’ becomes the syntactic-subject prior to relativization. ⑨

(10) a. [çiçek yetiş-en] bahçe
   flower grow-sr garden
   ‘the garden where flowers grow’

   b. Bahçe-de çiçek yetiş-iyor.
   garden-LOC flower grow-pres.prog-3s
   ‘Flowers grow in the garden.’

The incorporation analysis also provides an explanation for why the SR form does not seem to be acceptable for relativizing non-subjects in intransitives (unergatives), as in (11a), or transitives, as in (12)–(13). In these constructions, the subject is generated in a higher projection, the theta position of [Spec, vP], and cannot incorporate into the verb. ⑩ In the intransitive (or unergative) example in (11a), even though the subject kamyon ‘truck’ is non-specific, the SR form is not possible. As shown in (11b), the NSR form is possible with the proviso that the subject be specific and bear overt genitive case.

(11) a. *[kamyon geç-en] köprü
   truck go-sr bridge
   Intended ‘the bridge that trucks go on’

⑧ The exact motivation for this move is not important at this point; it could be that T must discharge its Case (the Inverse Case Filter) or any of the structural or featural definitions of the EPP. But see fn. 16.

⑨ As noted in Barker et al. (1990), there is dialectal variation in terms of the acceptability of non-subject SR RCs. The examples cited are based on native speaker judgments. The analysis here applies only for the dialect in which these judgments hold.

⑩ This movement being barred by the Head Movement Constraint or other more general principles. See Baker, this volume, and references therein.
b. [kamyon(-lar)-in geç-tiğ-i köprü.  
truck(s)-GEN go-NSR-3s bridge  
‘the bridge that the truck(s) go on’

\[(12) \quad *[\text{fare yi-} \text{yen}] \text{peynir}  
mouse ate-SR cheese  
\text{Intended: ‘the cheese mice eat’} \]

\[(13) \quad *[\text{peynir-i fare yi-} \text{yen}] \text{bakkal}  
cheese-ACC mouse eat-SR SHOP  
‘the shop where mice eat cheese’ \]

2.2. Review of facts: when is the SR form licensed

Let’s review the structures where the SR form is required.\(^{11}\) In transitive RCs, the SR form must be used for relativizing the subject (14a) and is not permitted for relativizing a non-subject, neither the direct object (DO) as in (14b), nor an inherently case-marked expression, such as the locative in (14c).\(^{12}\) In transitives, subject incorporation is not possible because whether or not the subject in (15) is non-specific, it is syntactically too high to undergo incorporation into the verb.

\[(14) \quad \begin{align*}  
\text{a.} & \quad [\text{DP1-subject}] [\text{TP} t_1 [\text{VP} \text{DP2-DO} t_1 [\text{VP} \text{DP3-locative Verb-SR }]]] \\
\text{b.} & \quad *[\text{DP2-DO}] [\text{TP} \text{DP1-subject}_2 [\text{VP} t_1 t_2 [\text{VP} \text{DP3-locative Verb-SR }]]] \\
\text{c.} & \quad *[\text{DP3-locative}_1] [\text{TP} \text{DP1-subject} [\text{VP} \text{DP2-DO} t_1 [\text{VP} t_1 \text{Verb-SR }]]] \\
\end{align*} \]

\[(15) \quad *[\text{CP} \ldots [\text{TP} \ldots [\text{VP} \text{DP/NP1-subject} [\text{VP} \text{DP2-direct object (DP3-locative) Verb-SR }]]]] \]

In impersonal passive constructions, the SR is obligatory: in the absence of a thematic subject, the relative head acts as the syntactic subject, (16). Incorporation is not at issue here.

\[(16) \quad [\text{CP} \text{DP1-Inherent case}] [\text{TP} t_1 [\text{VP (DP2-Inherent case) Verb-Passive-SR }]] \]

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\(^{11}\) In the following examples, I use DP to denote a specific nominal, and NP to denote a non-specific nominal. For justification of this dichotomy, see Cagri (2005). For this discussion, one may simply consider the terms mnemonic.

\(^{12}\) Turkish being head-final, the RC precedes the relative head, and in these schemas the highest nominal in the clause is left-most, while the head noun is rightward.
In unaccusative RCs that contain a specific subject, the SR form is not permitted. Only non-specific nominals can undergo incorporation. Unable to incorporate into the verb, the DP-subject in (17a) must move to [Spec, TP] and be case-marked. Because the relative head (DP2) is not the syntactic-subject, the SR is disallowed. Only the NSR form for relativization of a non-subject is possible, as shown in the structure in (17b).

(17) a. 

\[
*_{[\text{CP}} \quad \text{DP2-Inherent case} \quad [\text{TP}} \quad \text{DP1-subject} \quad [_{vP} \quad \text{Verb-SR } \]]
\]

b. 

\[
_{[\text{CP}} \quad \text{DP2} \quad [\text{TP}} \quad \text{DP1-subj+Case} \quad [_{vP} \quad \text{DP2-Inherent case} \quad t_1 \quad \text{Verb-NSR } \]]
\]

On the other hand, unaccusatives with a non-specific subject do trigger the SR form for non-subject relativization because as shown in (18), the non-specific subject can undergo incorporation, leaving the syntactic subject position open for the relative head.

(18) 

\[
_{[\text{CP}} \quad [\text{TP}} \quad \text{DP2-Inherent case} \quad [_{vP} \quad t_1 \quad \text{NP1-subject Verb-SR } \]]
\]

In unergative (or intransitive) RCs with specific subjects, incorporation is not possible (incorporation requires non-specificity). The subject maintains its autonomous status in the structure and the SR form is barred for non-subject extraction, as shown in (19).

(19) 

\[
*_{[\text{CP}} \quad \text{DP2-Inherent case} \quad [\text{TP}} \quad \ldots \quad [_{vP} \quad \text{DP1-subject} \quad [_{vP} \quad t_1 \quad \text{Verb-SR } \]]
\]

Furthermore, even when the subject in these structures is non-specific, incorporation is still not possible because the subject is generated in a position structurally too far away to permit incorporation. As shown in (20), the subject generated in the vP cannot lower onto the verb.

(20) 

\[
*_{[\text{CP}} \quad [\text{TP}} \quad \text{NP1-subject } v^0 \quad [_{vP} \quad \text{DP2-Inherent case} \quad \text{Verb-SR } \]]
\]
2.3. Problems with the incorporation analysis

Although there have been arguments against an incorporation analysis for Turkish RCs (see Erguvanlı Taylan, 1984; Kornfilt, 1984, 2003; Zimmer, 1987; Kural, 1992, 1997; Öztürk, 2005; among others), what is important here is that it fails to capture the generalization that the SR form for non-subject RCs is licensed as long as, and whenever, the relative head moves into [Spec, TP] prior to raising to the CP domain, that is, the SR form is licensed for non-subject relativization even when incorporation is not possible. In section 3, we will see that it is the possibility or impossibility of the movement of the relative head through [Spec, TP] that determines the acceptability of the SR and that the non-subject SR can be explained without appealing to incorporation (or pseudo-incorporation) operations.

2.4. The pseudo-incorporation analysis

The head-movement incorporation analysis is geared toward objects or themes. Departing from this analysis, Öztürk (2005, and this volume) proposes that incorporation in Turkish is not limited to verbal complements, but that an operation of pseudo-incorporation is possible for all bare nouns. Under this analysis, the Agent of the clause avoids argument-hood by merging as the sister to the lexical verb and forming a [NP + V] complex. This operation has the effect of turning all transitives with bare subjects into unaccusatives with no external argument. Although Öztürk does not deal specifically with RCs, the analysis lends itself to non-subject SRs. Adopting a pseudo-incorporation account, the agent of the RC incorporates into the verb, forming a complex predicate, leaving the syntactic subject position open for another NP/DP to move into. Thus, when this nominal is relativized, the SR form would be triggered because the nominal is, in fact, syntactically replacing the external argument.

Problematic for this analysis is the core assumption that bare NPs do not function as arguments but nevertheless have theta-roles and bear structural case. According to Öztürk,

“... case features are not introduced via ... TP or vP [rather] ... syntactic case features are available within the thematic domain on the theta-role introducing functional projections ... Thus, ... when NPs are merged to Specs of theta-role introducing functional projections, and check case in situ, they become syntactic arguments without forming case-chains with higher functional projections (TP or vP).”

However, within Minimalism it is generally agreed that T° and v° assign case, and structural case and theta assignment are distinct operations.

The second problem is that if Öztürk is correct that Agent pseudo-incorporation is possible for all bare nouns, we are not able to explain why the SR form is not possible for relativizing a non-subject in intransitive sentences such as example (11a) which has a bare non-specific subject. According to Öztürk’s analysis, pseudo-incorporation of the bare Agent should free up the external argument position, yielding a structure identical to an unaccusative. This operation should make the SR form not only acceptable, but required, contrary to fact.

3. An analysis based on minimality

I propose that much of Turkish RCs can be explained by Minimality (Rizzi, 1990). Built into the definition of Move is the constraint that no DP can move to an A-position around/above another

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13 See fn. 20.
DP/NP that c-commands it. Let’s begin by looking at Turkish RCs along the lines of Chomsky (1995). First, recall that whenever a RC contains a specific subject, the NSR form is required. Let’s look at the derivation of a NSR. In the structure (21b) for the NSR example in (21a), the subject bayan ‘lady’ has moved to [Spec, TP] for case, ⊙, while the RC head divan ‘sofa’ has A-bar moved from its base position to [Spec, CP], after which it will raise to the external head position.\footnote{The trees are based on the raising analysis for RCs (Brame, 1968; Schachter, 1973; Vergnaud, 1974; Kayne, 1994; Bianchi, 1999), but the arguments here do not depend on the assumption of any particular account of RCs. Note that the derivations continue only to the CP phrase, i.e. the point where the relative head raises to the Spec of CP. The continuation of a derivation to the next higher phrase is not germane to the discussion.}

\begin{itemize}
  \item a. \footnotesize{\texttt{[bayan-ın Ø i otur-duğ-u] divan₃}}  \\
       lady-gen Ø sit-NSR-3s sofa \\
       ‘the sofa that the lady is sitting on’ \\

  \item b. \footnotesize{\texttt{[lady+GEN]}} \\
      \begin{itemize}
        \item \texttt{CP} \\
        \item \texttt{+Wh} \\
        \item \texttt{TP} \\
        \item \texttt{C°} \\
        \item \texttt{[Spec, TP]} \\
      \end{itemize} \\
      \begin{itemize}
        \item \texttt{[Spec, CP]} \\
        \item \texttt{T°} \\
        \item \texttt{[Spec, TP]} \\
      \end{itemize} \\
      \begin{itemize}
        \item \texttt{DP} \\
        \item t-lady \\
        \item \texttt{t-sofa sit} \\
        \item +Wh \end{itemize} \\
\end{itemize}

On the other hand, we saw that the SR is required when the syntactic-subject is relativized, that is, the SR form is triggered when the relativized expression moves through the “subject” case-marking position, [Spec, TP].

At this point, there are two facts about Turkish arguments, specifically the internal and the external argument, that we need to keep in mind. First, specific subjects and objects must receive overt case by raising to a case-assigning position; and second, non-specific subjects and objects must stay in situ and be bare (Erguvanlı Taylan, 1984; Enç, 1991, among others).\footnote{At issue here is the possibility of A-movement; structural case-assignment is secondary. I assume, however, that only specifics need case and that non-specifics do not, and hence are bare. For a different view, see Erguvanlı Taylan (1984), and Öztürk (2005), and references therein, who argue that non-specifics in Turkish check case.} These facts have the following effect in RCs: [Spec, TP] of a RC with a specific subject will always be occupied (as the specific subject must raise for case), and conversely, in a RC with a non-specific subject, [Spec, TP] will be vacant (as the non-specific subject cannot raise).\footnote{Although various assumptions about movement and case assignment are possible within this analysis, I assume the following to account for the facts: T’ and v° in Turkish have EPP features that must be satisfied by movement of a DP into their Specs for convergence. Structural case is assigned in a Spec-Head configuration. I do not assume an inverse case filter. Movement is driven by the EPP. DPs are specific and must be case-marked but not NPs which are non-specific. For a more detailed discussion of these assumptions, see Cagri (2005).}

We see these properties play out in derivation (22b) for the SR clause in (22a). In this derivation, the subject gemi ‘ship’ is non-specific and thus cannot raise from its base position; this leaves [Spec, TP] vacant. The +Wh-DP, harbor, moves to [Spec, TP], in move ⊙, and then again to [Spec, CP], move ⊙. This is exactly the configuration that licenses the SR form, movement of the relative head from the “subject” position of [Spec, TP] to the CP domain.
(22) a. \[\text{gemi yanaş-an] liman} \]
   ship sidle-sr harbor
   ‘the harbor that a ship is sidling up to’

b. \[
\begin{array}{c}
\text{CP} \\
\text{harbor} \\
\text{TP} \\
\text{\texttt{C}^0} \\
\text{t-harbor} \\
\text{+Wh} \\
\text{VP} \\
\text{T}^0 \\
\text{DP} \\
\text{t-harbor} \\
\text{+Wh} \\
\text{ship} \\
\text{sidle.up.to} \\
\end{array}
\]

Compare (22a)–(22b) with the minimally different NSR example in (23a) with the derivation in (23c). Here, the subject \text{gemi} ‘ship’ is specific, and so must raise to [Spec, TP].

The “subject” position of [Spec, TP] is occupied, so the relative head must A-bar move directly from its base position to [Spec, CP]. Whenever the relative head does not move to the CP domain from the “subject” position of [Spec, TP], the SR form is barred, (23b), and the NSR required.

(23) a. \[\text{gemi-nin yanaş-tıg˘-ı} liman} \]
   ship-GEN sidle-NSR-3s harbor
   ‘the harbor that the ship is sidling up to’

b. *\[\text{gemi-nin yanaş-an] liman} \]
   ship-GEN sidle-sr harbor

c. \[
\begin{array}{c}
\text{CP} \\
\text{harbor} \\
\text{\texttt{C}^0} \\
\text{\texttt{t-harbor} +Wh} \\
\text{\texttt{TP} VP T}^0 \\
\text{\texttt{DP} t-harbor +Wh ship sidle.up.to} \\
\end{array}
\]

17 To satisfy T’s EPP feature and subsequently receive case. See fn. 16.

18 As expected from the evidence in (2), there is a word order difference in the base sentences of (22a) with a non-specific subject, (i), and (23a) with a specific subject, (ii): (i) liman-a gemi yanaş-du/tyor. (ii) gemi liman-a yanaş-du/tyor.

The non-specific subject in (i) cannot raise from its base-position, and so the Dative DP, \text{liman} ‘harbor’, must raise to [Spec, TP]. Although one could argue that nothing has raised in (i), there is considerable evidence in Cagri (2005), and references therein, that T in Turkish has an EPP feature that must be satisfied for convergence.
3.1. Relativization with the SR form in unergatives and transitives

We saw in sections 2.1 and 2.2 that the SR form is not acceptable for relativizing non-subjects in unergative and transitive constructions. However, this is not altogether accurate. For example, the SR is possible in unergatives, specifically in a derivation where the extracted expression is remnant moved out of a larger DP. Compare the SR in (24a) with the unacceptable one we saw in (11a), repeated as (24b).

top-AGR-ABL truck go-SR BRIDGE
‘the bridge that trucks go on top of’

b. *[kamyon geç-en] köprü
truck go-SR bridge
‘the bridge that trucks go on’

Recall that the SR form is triggered when the relative head moves to the CP domain from [Spec, TP]. As shown in (25a), the relative head in (24a), köprü ‘bridge’, is embedded in a larger DP, [köprüün überinden] ‘bridge’s top’. Looking at derivation (25b) for example (24a), in move ⊙, this DP scrambles around the non-specific subject which must remain in situ, yielding (25c). The relative head, köprü ‘bridge’ is the possessor of this large DP, that is, it is in the specifier of the scrambled DP. In move ⊙(in the tree, the RC head raises out of the larger scrambled DP and moves to [Spec, TP]. In move ⊗(and as schematized in (25c)), the RC head, köprü ‘bridge’, raises from [Spec, TP] to [Spec, CP]. As expected, the SR form is triggered in this structure because the relative head moved from [Spec, TP] to the CP domain.

(25) a. [vP kamyon [vP [DP köprü-nün über-in]-den geç-]]
truck [bridge-GEN top-AGR]-ABL go-

b.

\[
\begin{array}{c}
\text{CP} \\
\text{TP} \\
\text{bridge-GEN} \\
\text{vP} \\
\text{DP-ABL} \\
\text{NP-truck} \\
\end{array}
\]

\[
\begin{array}{c}
\text{C°} \\
\text{T°} \\
\text{v°} \\
\text{go} \\
\end{array}
\]

\[
\begin{array}{c}
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\[[[\text{bridge+Wh-GEN}top]]

\[[[\text{bridge}+\text{Wh-GEN}\text{top}]]

In the case of the bad example in (24b), scrambling of the relative head köprü ‘bridge’ around the subject kamyon ‘truck’ will not save the derivation. Scrambled expressions in Turkish do not move to [Spec, TP], but to a site lower than TP, and once scrambled, these elements are frozen for further A-movement (Cagri, 2005; Chomsky, 2005) (see fn. 19). In (24b), the relative head cannot move directly to [Spec, TP] because the subject intervenes, nor can it scramble to [Spec, TP]. The DP can scramble around the subject, but will then be unable to proceed further.

3.2. What blocks the SR form for non-subjects?

We saw that in unaccusative RCs, a non-specific subject does not intervene in the A-movement of the relative head to [Spec, TP]. It is structurally out-of-the-way. In intransitives, the subject does intervene. In both transitive and intransitive structures, the subject is base-generated in [Spec, vP]. In a phrase with a non-specific subject, the subject must remain in situ, leaving [Spec, TP] vacant. However, a non-subject relative head cannot A-move to [Spec, TP] because the subject is in the way. Movement to [Spec, TP] strictly obeys Minimality.20 An expression, however, can scramble around the subject. We can conclude that a scrambled expression is frozen for further A-movement because if it were not, the relative head in an unergative with a non-specific subject would be able to scramble around the subject and move to [Spec, TP].21 This would have the unwanted consequence of permitting the SR form for all unergatives with non-specific subjects. But, the SR form is permitted only when the relative head is a “free rider” in a scrambled expression. The SR form is permitted for unergatives when the RC head is embedded in a DP—specifically as the Spec of that DP—that scrambles around the non-specific subject. After being carried around the subject, the RC head is free to A-move and the subject is no longer an intervener for the movement of the RC head to [Spec, TP].22 This is how the SR is licensed in (24a).

3.3. Eluding intervention effects in transitives

An analogous phenomenon is observed in transitive constructions. As we saw in examples (12) and (13), the SR form is unacceptable for non-subject extraction in transitive constructions. The SR example in (13), repeated as (26a) does not converge because it is not possible for the relative head, the locative bakkal ‘shop’, to move to [Spec, TP]; the subject (as well as the direct object) intervenes and blocks this movement. In the acceptable NSR example in (26b), the RC

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20 Minimality as outlined by Rizzi (1990) is also referred to as “the shortest link” requirement (also called the Minimal Link Condition): Minimize chain links (Chomsky and Lasnik, 1993, reprinted as Ch.1 in Chomsky, 1995). Chomsky (1995:296 Ch.4) includes the Minimal Link Condition in the definition of Move: a can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K (where “close” is defined in terms of c-command). In sum, no DP can move to an A-position around/above another DP/NP that c-commands it.

21 We need to assume that the landing site for a scrambled expression is lower than [Spec, TP] as this position must remain vacant for the relativized expression to raise to once it leaves its scrambled host. This analysis also requires the further assumption that TP has a unique Spec position.

22 See Cagri (2005) for a more detailed description which cannot be included here for reasons of space.
subject is specific and must raise to [Spec, TP] (and receive case). In this example, the relative head locative has undergone long-distance A-bar movement to [Spec, CP].

(26) a. *[peynir-i fare yi-yen] bakkal
    cheese-ACC mouse eat-SR shop
    ‘the shop where mice eat the cheese’

b. [fare-nin peynir-i ye-diğ-i] bakkal
    mouse-GEN cheese-ACC eat-NSR-3s shop
    ‘the shop where the mouse ate the cheese’

The SR example we saw in (12), repeated as (27), is bad because an accusative direct object cannot move to [Spec, TP], and is frozen for further A-movement. On the other hand, the example in (28b) demonstrates that an expression embedded in an accusative direct object can be relativized using the SR form.

(27) *[fare yi-yen] peynir
    mouse eat-SR cheese
    Intended: ‘the cheese mice eat’

In example (28b), the non-specific subject, goril ‘gorilla’, must remain in its base position in [Spec, vP]. The specific direct object [masa-nın cam-ı] ‘table’s glass’ (i.e. the glass table-top) is a possessor-possessee construction which raises from the VP domain to the accusative case position, [Spec, vP], above the subject. The relative head masa ‘table’ is a ‘free-rider’ in the specifier position of the direct object. As part of the bigger DP, the RC head is carried around the subject, after which it is free to raise to [Spec, TP] without intervention effects.

(28) a. *[goril kır-an] masa₁
    gorilla break-SR TABLE
    ‘the table that a gorilla broke’

b. [[Ø₁ cam-ı]-nı goril kır-an] masa₁
    glass-AGR-ACC gorilla break-SR TABLE
    ‘the table whose glass a gorilla broke’

An incorporation analysis cannot account for the data in (24) and (28). There is no way to prevent incorporation in the bad examples (24b) and (28a), while allowing it in their acceptable counterparts, (24a) and (28b).

This is also true for the example in (29). Recall that in the minimally different example in (26a), the subject (and object) which c-commands the locative blocks the movement of the locative bakkal ‘shop’ to [Spec, TP], even though that position is vacant. In (29), the relative head bakkal ‘shop’ is a constituent of a larger DP, the direct object [bakkal-in peynir-i] ‘shop’s cheese’. When the direct object raises to [Spec, vP] for accusative case, it carries along the relative head in

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23 A DP marked with structural case, in this case, accusative, is barred from moving to another structural case-assigning position. This restriction does not hold for DPs with inherent case which may move to structural case positions. The same phenomena can be observed in Korean. See Hong (2002).

24 A DP and an expression in its Spec are equidistant for the purposes of movement to a higher A-position. This was also observed by Rackowski and Richards (2005) for Tagalog.
its specifier as a “free rider”. The accusative object cannot move to [Spec, TP], but the relative head bakkal ‘shop’ can, moving there from the Spec position in the direct object which is now in [Spec, vP]. From [Spec, TP] the RC head raises to [Spec, CP], the configuration for the SR form.

\[ \text{[[Ø₁ peynir-i]-ni fare yi-yen bakkal₁} \]
\[ \text{cheese-AGR-ACC mouse eat-SR shop} \]
\[ \text{‘the shop whose cheese mice eat’} \]

4. Conclusion

The head-incorporation analysis has been used to explain the acceptability of the Turkish Subject Relative (SR) form for relativizing non-subjects. The analysis rests on the possibility of the non-specific subject to incorporate into the verb, thereby leaving the syntactic “subject” position open for the relative head. As long as the relative head can behave as if it were the syntactic subject, regardless of its theta role, the SR form is triggered. In structures where the subject is generated higher than as sister to the verb, incorporation of the subject is not possible. Specific nominals also cannot incorporate. These facts have been used to explain the unacceptability of the SR for non-subject relativization in transitives and unergatives (intransitives), and also in all clauses where the subject is specific.

We saw, however, that the SR is acceptable in RCs with non-specific subjects when the relative head is extracted from a larger constituent in transitives and intransitives. The incorporation analysis cannot account for the unacceptability of the SR in some transitives and intransitives, while being acceptable in others that are quite similar.

Rather than viewing the non-specific subject of SR RCs as being incorporated, this work has provided evidence that the SR form is licensed any time the relativized expression occupies [Spec, TP], either as the canonical subject, or by moving there when the canonical subject cannot. Movement of the relative head to the [Spec, TP] position is not thematically constrained, rather, it obeys Minimality. Intervention effects induced by a subject in [Spec, vP] can be eliminated by scrambling. The relative head can get around the subject as a “free rider” in a scrambled expression thereby avoiding intervention effects. So too can the specifier of an accusative direct object be relativized with the SR form. Indeed, while relativization of the direct object with the SR form is impossible, relativization of the possessor of the accusative direct object in a clause with a non-specific subject obligatorily requires the SR form. In sum, [Spec, TP] cannot remain vacant, and non-specific subjects are barred from moving to [Spec, TP]. In a clause with a non-specific subject, some other DP must move to [Spec, TP] for convergence. This movement cannot violate Minimality. The SR form is triggered when a DP is relativized from the [Spec, TP] position, regardless of its theta role, or the argument structure or class of the verb. The (pseudo-)incorporation analyses can neither account for the facts nor do they capture the generalization that Minimality prevents movement of non-subjects to the syntactic subject position of [Spec, TP]. The SR form is licensed for non-subject DPs whenever the subject is non-specific, as long as that DP can first move to [Spec, TP]. The only expressions which cannot be relativized in the SR form are the accusative direct object, which is prevented by its structural case, and a scrambled element, which is frozen for further A-movement.

25 See fn. 23.
References

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