

Turkish Relative Clauses: How Exceptional are they from a Central Asian Turkic Perspective?*

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1. Introduction

This paper has a historical and a synchronic dimension; the two dimensions have similarities in that they make related claims, as follows:

The historical claim is that Turkish phrase structure has developed functional projections over time; the synchronic, typological claim is that some of these functional projections are not shared by all of the cognate languages of Turkish, i.e. by some of the other Turkic languages. These projections are CP, TP, DP, and possibly Agr(S)P (if the existence of this projection is assumed); to be more specific, I claim that some of the contemporary Turkic languages, most of them being spoken in various parts of Central Asia, have also developed functional projections, but not all of those which Turkish, in its migration to the Mediterranean area, has developed. Conversely, it is possible that those languages have developed, or perhaps inherited, functional projections which Turkish has either not developed or has lost; more specifically, this might well be the case in the area of tense and aspect, given that the verbal morphology of some of those cognate languages is richer than that of Turkish in those respects. In Central Asia, the number of functional projections is probably smaller, as is their size: I shall claim that for at least those Central Asian languages this paper will look at in some detail, CP is missing—at least in relative clauses (RCs), and probably altogether.

A number of syntactic phenomena, such as certain types of movement (e.g. DP- or NP- movement in passives), certain checked structural cases (as opposed to default case), and certain operator — variable constructions (e.g. full-fledged RCs instead of reduced ones) have arisen in Turkish as a consequence, due to the additional specifier positions of these functional projections.

Especially with respect to RCs, this paper claims that the modifier clauses of Modern Standard Turkish (MST) are CPs, while they are TPs or even lower Aspect/ Mood-phrases in many other contemporary cognate languages. Historically, in Old and Middle Turkic, these clauses were Aspect/Mood-clauses, or possibly even smaller projections, i.e. bare VPs.

The paper is organized as follows: I first look at the historical dimension of the issue and present some case studies from older stages of Turkic, pointing at morphological as well as syntactic differences between them and the corresponding constructions in MST, making the claim that those disparate differences can be insightfully described in a unified fashion if they are ascribed to a difference in the functional projections available to the different stages, and if it is claimed that Turkish added functional projections in the course of its historical development, with the new additions being higher than the existing projections. I then turn to other contemporary Turkic languages, again presenting case studies (and, most importantly, studies of relative clauses or constructions that function as such) which make the same point: MST has a richer array of higher functional

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projections than its contemporary cognate languages, especially having developed a CP which its contemporary sisters don't have (at least not in their RCs).¹

A number of languages, English included, have the possibility of both pre-nominal (e.g. the recently visited island) and post-nominal (e.g. the island that was visited recently) RCs. Note that the pre-nominal RC is more reduced than the post-nominal RC. Modern Turkish pre-nominal RCs are different from their English counterparts, however, in at least two crucial respects: they can display agentive “by-phrases” in passive RCs, which is not possible in English (e.g. *the by many tourists visited island), and they can target non-subjects—as discussed, to a large extent, in the present paper. The RC targeting a non-subject is a type of construction which is also not possible in English (e.g. *the many tourists visited island, versus the well-formed post-nominal, non-subject RC the island that many tourists visited). This shows that Turkish pre-nominal RCs are not as reduced as their English counterparts and instead correspond to their post-nominal English counterparts (cf. also Kornfilt 2000 for more discussion).

2. Case studies

2.1. *TP versus VP*

In Old Turkic (OT)², Agreement is severely limited, as is Tense. There is only one genuine Tense: the simple past, and it takes a genuine Agreement form, i.e. a bound morpheme:

- (1) biz az är-ti-miz
we few be-PST-1.PL
'We were few' (BK E 32, cited in Tekin 1967, 138)

I suggest that this single Tense was an innovation—an intimation of more tenses developing. Note also that this Tense marker is immediately followed by a subject agreement marker, as genuine Tense markers are in MST, as well. But everywhere else in OT verb forms, there is a postverbal personal pronominal form instead of a suffix. (A corresponding, mostly identical, pronominal form is only sometimes found in canonical preverbal subject position at the same time.) Thus, more typical examples are of the following sort:

- (2) biz az biz
we few we
'We are few' (O F 7, cited in Tekin 1967, 139)
- (3) saqin -ur män
mourn-PRSPART I
'I mourn' (lit.: 'I am mourning, I am the mourning one') (BK W 6; Tekin 1967, 139)

I propose the following analysis for such forms: At this stage, in this more general pattern, there is no T-head with its own projection. There either is no Tense marker at all (as in (2), where the interpretation is that of Present Tense, by default), or there is a marker, as in (3), which is a participle and has the Aspectual interpretation of habitual, thus a default temporal interpretation of present.

Consequences of this analysis: There is no Spec,TP in most instances of predicates; the subject is VP-internal in general—i.e. not only is the subject base-generated VP-internally, I claim that it also remains in that

¹ The relative clauses considered in this paper are limited to restrictive relative clauses. For concise explanations of the nature of restrictive versus nonrestrictive relative clauses as well as of (other) apparent relative clauses, the reader is referred to Keenan (1985), a very useful chapter on relative clauses.

² For the purposes of this study, I limit myself to the earliest body of documentation in Old Turkic (OT), i.e. to the inscription in the runiform script, dating from the 7th to 10th centuries AD, found in the area of the second Turkic empire and the Uighur steppe empire, i.e. present-day Mongolia, and the Yenisey basin. The two other corpora are documents of somewhat later stages (9th to 13th century Old Uighur manuscripts, and 11th century texts from the Karakhanid state), and they illustrate somewhat more “evolved” characteristics; I leave a study of the language in those documents to future research. For an overall description of OT in this wider sense, see Erdal (1998). (I have chosen the orthography of “Uighur” over “Uyghur” in this paper.)

position. Passive constructions should not involve moving the subject to a Spec,TP position. If so, how is nominative Case (or any other subject Case) checked? Two answers come to mind: 1. The subject Case is checked with the subject in-situ, VP-internally; 2. subject Case is a default Case.

My claim here is that the second answer is the appropriate one: In OT, subject Case is default. Where MST has a licensed structural Case on a specifier, with the licenser the functional head of the projection, OT has default Case and no functional element as the head of a potential functional projection.

I will discuss other instances of specifiers in the next (sub)sections.

2.2. Possessive phrases and nominal compounds

This subsection addresses a comparison of Old Turkic possessive phrases and nominal compounds with their Modern Turkish counterparts.

Certain Case and agreement markers that obligatorily co-occur in Modern Turkish do not show up in Old Turkic. Consider the following example of an Old Turkic inscription and its counterpart in Turkish, where we find possessive phrases and one nominal compound in both examples:

- (4) qayan it yıl onunç ay altı otuz-ga uça bar-dī
 khan dog year tenth month six thirty-LOC die-PST
 ‘The Kagan passed away on the twenty-sixth day of the tenth month of the Year of the Dog’
 (BK S 10; Tekin 1967, 246)

MST:

- (5) kağan köpek (“it”) yıl -in -in onuncu ay -in -in
 kagan dog year- COMPD -GEN tenth month-3.SG-GEN
 yirmi altı-sın -da öl-dü
 twenty six- 3.SG-LOC die-PST
 ‘The Kagan died on the twenty sixth of the tenth month of the Year of the Dog’

Note that in (5), the nominal compound *köpek yıl-ı(n)* ‘dog year’ bears a compound marker on its head noun; the corresponding nominal compound *it yıl* ‘dog year’ in (4) has no such marker.

Likewise, in the possessive phrases of (5), we find that the “possessors” are all marked with the genitive, and the “possessee”, i.e. the heads of the possessive phrases, are marked with a third person singular agreement marker, thus agreeing with their possessors in the features of person and number; thus, we find, for example, for the meaning ‘the tenth month of the dog year’ (literally, ‘the dog year’s tenth month’), a genitive marker on *köpek yıl-ı(n)* ‘dog year – compound marker’, yielding *köpek yıl-ın-ın* ‘of the dog year; the dog year’s’; we further find the just-mentioned agreement marker on the “possessee”, i.e. on ‘tenth month’: *onuncu ay-ı(n)*.³

My account for the appearance of these markers is as follows:

Possessive phrases: In MST, the genitive has to be checked by a phi-feature agreement element (cf. Kornfilt, 2003; 2006; 2009a). In the corresponding OT example, the specifiers (“possessors”) of the possessive phrases are bare, and there is no agreement element on the heads (“possessee”), as we saw, thus raising the question of why no checking mechanism is required.

I propose the following account: The bare DPs in OT in specifier position are in the nominative Case (i.e. a Case which is represented by a morphologically null element, also in MST), and the nominative is a default case in OT. The possessive phrases in OT are bare NPs, which are not dominated by functional projections (or at least not by an *AgrP* or an *nP*—cf. Kornfilt 2006), the way they are in MST; this is why there is no

³ Note that the compound marker is actually the third-person singular agreement marker, which I take to be the default agreement marker. In both of its usages, i.e. as a nominal compound marker as well as when used as a genuine agreement marker in possessive phrases, this marker has a word-final /n/, which gets deleted in word-final position, but does show up otherwise, i.e. both before a vowel or a consonant. This is why the /n/ is placed between parentheses in the text.

morpho-phonologically realized agreement morpheme, and this is why there is no overt genitive (or any other licensed, specifier-specific case, either). Given that the nominative is a default case, at least in OT, it does not need a licenser.

More detailed representations of the relevant parts in the previous examples, as discussed above, follow:

- (6) MST: $[_{DP} [_{DP} \text{ köpek yıl} \text{ -in} \text{ -in}] [_{D'} [_{NP} \text{ onuncu ay}] [-1]]]$
 dog year- CMPD-GEN tenth month -3.SG
 ‘The tenth month of the Year of the Dog’
- (7) OT: $[_{NP} [_{NP} \text{ it yıl}] [_{NP} \text{ onunç ay}]]$
 dog year tenth month
 ‘The tenth month of the Year of the Dog’

Returning to nominal compounds, as we saw earlier, in Modern Turkish, the nominal compound must be headed by default agreement (i.e. the third person singular agreement marker), which has become a nominal compound marker in MST; the OT nominal compounds lack this, or any other, marker; additional examples for this contrast follow:

- (8) a. OT: *türük bodun*
 Turk people
 ‘The Turkish people’ (KT E 6; Tekin 1967, 203)
- b. MST: *Türk millet -i*
 Turk people -CMPD (=3.SG)
 ‘The Turkish people’
- (9) a. OT: *şantung yazı*
 Shantung valley
 ‘The Shantung valley’ (BK E 15; Tekin 1967, 203)
- b. MST: *Şantung ova -sı*
 Shantung valley -CMPD (=3.SG)
 ‘The Shantung valley’

The default agreement as a nominal compound marker isn’t found with other kinds of compounds or phrases in MST, i.e. where the non-head is not a nominal; e.g. with an adjective:

- (10) a. MST: *yeşil ova*
 green valley
 ‘The green valley’
- a. MST: *açık deniz*
 open sea
 ‘The open sea’

I sketch the following analysis for MST: Suppose that the default agreement marks a small *n*-head which checks a special nominal case on the nominal which is in-situ in the complement position of the head noun, via AGREE. Non-nominal categories don’t need case and hence no licenser, which thus explains why no compound marker is found in examples such as (10). But in OT, this special nominal case is a default case that doesn’t need to be checked by a licenser, thus there is no default agreement on the head of the nominal compound.

2.3. *Passive*

In Modern Turkish, it is clear that there is syntactic passive; derived subjects can be thematically unrelated to the passive verb:

- (11) Ali sen -i_i [t_i uyuyakal-dı] san -ıyor
 Ali you-ACC fall asleep -PST believe -PRSPRG
 ‘Ali believes you to have fallen asleep’

- (12) *Sen*_i (*Ali* tarafından) *t*_i [*t*_i *uyuyakal-dı*] *san* -il -iyor -sun
 you Ali by fall asleep-PST believe-PASS-PRSPRG-2.SG
 ‘You are believed by Ali to have fallen asleep’

In (12), the subject of the passive main clause, *sen* ‘you’, is in the nominative and agrees with the main clause predicate in person and number; however, this subject is not related thematically to that main clause predicate. This means that at least for instances like these, there must be a genuinely syntactic (rather than lexical) passive; such constructions are due to DP-movement and cannot be ascribed to a purely lexical phenomenon based on a verb’s externalizing an internal argument; as just mentioned, in the example above, the derived matrix subject *sen* ‘you’ is not a thematically related argument of *san* ‘believe’.

There are no passives of this sort in OT at all. This may be due to an accidental gap in the documentation, but given that there is quite a wealth of documentation for the relevant period, this is unlikely. We have to note that there is no motivation in OT for DP-movement that would be case-driven; if nominative is a default rather than a licensed case, it can be assigned to a DP without that DP’s needing to move to a designated position where nominative is licensed. Instead, there is lexical passive, which externalizes an internal argument, which then receives default case. Also, if there is no TP, there is no specifier position of TP as a landing site (and a site where subject case is licensed) for DP-movement. Clearly, this account is more explanatory than the assumption of an accidental gap.

OT did have instances of passive predicates; a passive marker that is the same as that of MST does exist. However, the phenomenon of passive as such must have been different from what we find in MST. Tekin (1967) observes that a number of passive verbs are found without active counterparts, offering support for the claim advanced here that the passive in OT was a lexical rather than movement-based syntactic operation—in other words, morphologically passive forms without corresponding active verbs:

- (13) a. *tir-il* ‘to come to life’ (BK E 31); <**tir* ‘to live’ (Tekin 19’67, 115)
 b. *adr-İL* ‘to be separated, be disjoined’ (TI W 2); <**adır* ‘to separate’ (Tekin 1967,115)
 c. *ök-ül* ‘to be planned’ (TI N 8); <**ök* ‘think’ (Tekin 1967, 115)

Data where a given morphological form (here, the passive) has no morphologically simpler (here, active) counterpart is typical of a lexical process and has been posited as a criterion (among others) to distinguish between lexical (adjectival) and syntactic (verbal) passives in English (cf. Levin and Rappaport 1986, Lightfoot 1979, Wasow 1977).

An additional observation about morphological passives in OT is that even where the “passive” verbs do have a corresponding active form, they have a reflexive or middle/inchoative reading in context, rather than a genuinely passive interpretation; for example, the passive verb in the following example, *adr-İL* ‘split from, separate’, is one of the verbs whose active counterpart is not attested. In addition, the context makes it clear that the verb bearing the “passive” morpheme does not have a passive meaning:

- (14) *türk bodun ... tabyač-da adr -il -tı, qan-lan -ti*
 Turk people Chinese-ABL separate-PASS-PST khan-‘get’-PST
 ‘The Turkish people parted from/left the Chinese and got themselves a khan’
 (TI W 2, Tekin 1967, 249)

If this were an example of a true passive, the translation should be: ‘The Turkish people were separated from the Chinese (by someone else, i.e. by the agent of the separation)’, which doesn’t correspond to the historical realities. What we know about the events in question is that the Turkic people, under the leadership of Tonyukuk (the ‘Prime Minister’), decided that the time had come for their independence from the Chinese; they left for a different area and crowned a leader for themselves. (There are more examples illustrating passives of this sort in the inscriptions from which this and the other OT examples above are taken.)

2.4. *Passives and relative clauses*

If OT did not have a syntactic TP projection, it would be surprising (although not altogether impossible) if it had a CP projection, i.e. a functional projection higher than TP. There is evidence that OT did not have a CP projection, either.

In the documented OT inscriptions, there are no passive predicates in pre-nominal modification, i.e. in constructions corresponding to relative clauses. As a consequence, examples such as the following representative one, where the head corresponds to the thematic role of the predicate's patient, are systematically ambiguous between an active and a passive reading (assuming that passive interpretations are universal, and are present in a language that has no syntactic passive).

- (15) [qañimiz äçimiz qazyan-miš] bodun
 our khan our uncle conquer-PRFPART people
 'The peoples who were conquered by our father and uncle' (= 'the peoples whom our father and uncle conquered')
 (BK E 22, Tekin 1967, 179)

In MST, there would be two separate corresponding constructions: RCs with passive and RCs without passive. In both instances, the modern constructions bear evidence of functional syntactic structure which is lacking in the OT examples. I start by illustrating a corresponding RC with passive in the modifying clause:

- (16) a. [e_i kağan-ımız ve amca-mız tarafından yen -il -miş] millet-ler_i
 khan-1.PL and uncle-1.PL by conquer-PASS- PRFPART people-PL
 'The peoples who were conquered by our khan/father and uncle'

Note that in addition to the passive marker on the verbal predicate, we also have an indication that the agents, i.e. the conjuncts within the coordination of *kağanımız* 'our khan/father' and *amcamız* 'our uncle', are not a coordinated sequence of subjects, but of non-subject agents, given that they show up as complements of the postposition *tarafından* 'by'. There is no such indicator in the OT example, thus leaving it open whether the corresponding coordination of agents is actually a subject or a non-subject agent phrase. In this MST example, the head of the RC corresponds to a derived subject, i.e. to the thematic patient of the predicate, which is the derived subject, via syntactic passive, i.e. via DP-movement.

Next, a non-subject RC without any sign of passive in MST:

- (16) b. [kağan-ımız-ın ve amca-mız -ın e_i yen -diğ-i] millet-ler_i
 khan-1.PL-GEN and uncle-1.PL-GEN conquer-FN-3. people-PL
 'The peoples whom our khan/father and uncle conquered'

Here, the target is not only the thematic patient, but clearly a syntactic non-subject, given that the subject is clearly marked as such via the licensed subject case of genitive (i.e. the subject case for specific subjects in nominalized clauses). The (specific, referential) subject must be in the specifier position of a nominalized TP or Aspect phrase, which is headed by agreement, in order to have its genitive case licensed; cf. Kornfilt, 2003; 2006; 2008).

In MST, we have now seen ways in which it is clear whether the target of relativization is a subject or a non-subject (i.e. independently from its thematic role); in OT, the syntactic relation of the RC-target to the clause's predicate is ambiguous. The reasons for this ambiguity are as follows: 1. The subject is not marked with any dedicated licensed case, but is in a default case. 2. There is no relativization morpheme on the predicate that would give any clues: the perfective participial marker on the predicate in our example is also found in simple clauses; furthermore, there is no subject agreement marker. Therefore, the shape of the predicate does not indicate anything with respect to the target's relation to that predicate. In contrast, in MST, the so-called factive nominalization marker *-DIK*⁴ signals an embedded clause, and the third person agreement marker not only

⁴ I follow general Turkological practice (and the practice of generative studies where Turkish and Turkic are concerned) of using capital letters to represent archephonemes whose full values are determined by vowel harmony for vowels, and by voicing and devoicing processes for consonants.

licenses the genitive case on the subject, as just mentioned; it also signals the fact that the target of the RC is not a subject, given that in subject RCs, there is never an agreement marker—something which can be seen easily in comparison with the preceding subject RC example under (16a) for MST.

The factive nominalization marker found in non-subject RCs in MST is an (impoverished) Tense marker, given that it can differentiate between future (in which case it is *-(y)AcAK*) and non-future (in which case it is *-DIK*). This goes along with the approach here that proposes a TP for MST clauses, both when they are fully finite and when they are nominalized (at least in this type of factive RC). In contrast, I have proposed that there is no TP in OT. TP provides a site for the moved DO; it also provides a site for the licenser of the Genitive and Nominative (=subject case in nominalized and fully tensed clauses, respectively), this licenser being the agreement under T.

2.5. RCs: CPs in MST, AspPs in OT

The morphology of the predicate in MST RCs differs in two distinct ways, depending on the target of the RC. The first difference concerns the presence or absence of agreement morphology on the predicate, expressing agreement with the subject in terms of person and number: in subject RCs, there can't be any overt agreement marker on the predicate; in non-subject RCs, the agreement marker is obligatory. The absence of agreement in subject RCs will be addressed in the synchronic part of the paper. The presence of agreement in non-subject RCs has been mentioned earlier: it is needed as the licenser of the subject Case, i.e. of the genitive in these nominalized RCs.

The second way in which the predicates differ with respect to the RC-target is in the shape of the nominalization marker: while in non-subject RCs, this is the general factive nominalization marker *-DIK*, found in any factive nominalized embedding, there is a special marker, *-(y)An*, in subject RCs. The following examples illustrate both differences:

A subject as the target of relativization:

- (17) a. [[_ie_i geçen yaz ada-da ben-i gör-en] kişi-ler_i]
 last summer island-LOC I-ACC see-(y)An person -PL

‘The people who saw me on the island last summer’

(1: No phi-feature morphology on the predicate of the modifying clause; 2: special nominalization form on that predicate)

A non-subject as the target of relativization (traditionally so-called “object relativization”):

- (17) b. [[*pro* geçen yaz ada-da e_i gör-düğ -üm] kişi -ler_i]
 last summer island-LOC see-FN -1.SG person -PL

‘The people who(m) I saw on the island last summer’

(1: Phi-feature morphology; 2: general indicative nominalization form on predicate)

The next example illustrates a general factive nominalized embedding, thus showing the same morphology on the predicate as what is exhibited by non-subject RCs:

- (18) [öğrenci -ler-in ben-i ada-da gör-dük -lerin]-i duy-du-m
 student -PL-GEN I-ACC island-LOC see-FN -3.PL -ACC hear-PST-1.SG

‘I heard that the students saw me on the island’

Based on these data, I make the following two central claims:

Claim 1: The difference between the predicate forms in (17a) and (17b) is best viewed as a version of the “*que-to-qui* conversion” in French, however analyzed. Almost all analyses of this phenomenon in the literature, however much different from each other, involve the CP-projection.⁵ Suppose that the regular factive nominalization (FN) form *-DIK* corresponds to the general indicative complementizer *que*, and the special form exhibited by subject RCs (*qui*) corresponds to *-(y)An*. This means that in RCs in MST, the CP-projection is

involved, and the modifying clause projects as high as CP, while this functional projection was missing in OT (where, as we showed, no alternation of predicate morphology according to the target of the RC is found).

Claim 2: The other difference between (17a) and (17b), i.e. the difference with respect to exhibiting subject—predicate agreement in non-subject relatives and lacking such agreement in subject relatives is due to an A'-Disjointness Requirement (cf. Aoun 1986, Borer 1984, Ouhalla 1993, Kornfilt 1984, 1991), based on analyzing the target position in subject RCs as a resumptive *pro*—in other words, an A'- (i.e. operator-) bound variable. The *pro* in these instances would be identified by the agreement morpheme, if there were one. To avoid violation of the A'-Disjointness Requirement, there is no agreement in subject RCs, hence no resumptive *pro*.

An informal statement of the A'-Disjointness Requirement follows:

(19) The A'-Disjointness Requirement:

A pronoun must be (A'-) free in the smallest Complete Functional Complex (CFC) which contains it.

For our present purposes, the CFC is a CP.

The ill-formedness of overt resumptive pronouns in simple RCs, i.e. when they are locally bound (rather than used to repair subadjacency violations) supports this claim:

An overt subject resumptive pronoun in a simple RC:

- (20) a. $[_{C[NJP]} Op_i [_{AGR[NJP]} (*o_i/*kendisi_i) \text{ b} \ddot{o}l \ddot{u}m \text{ -de ben-i}$
 he/himself department-LOC I -ACC
 destekle-yen]] arkadař_i
 support -(y)An friend
 ‘The friend_i who_i (*he_i) supported me in the department’

An overt *direct object* resumptive pronoun in a simple RC:

- (20) b. $[_{C[NJP]} Op_i [_{AGR[NJP]} pro \text{ b} \ddot{o}l \ddot{u}m \text{ -de } (*on-u_i/*kendisin-i_i \text{)}$
 [1.SG] department-LOC he-ACC/himself -ACC
 destekle-diđ -im]] arkadař_i
 see -FN -1.SG friend
 ‘The friend_i whom I supported (*him_i) in the department’⁶

3. A historical sketch

How did the language (and, especially, its relative clauses and their functional projections, as well as a case system for subjects that went from a default case to a licensed case) evolve from having the properties we saw for OT into exhibiting the properties we illustrated for MST?

⁵ See, for example, Kayne (1976), Pesetsky (1982), Rizzi (1990), and Taraldsen (2002). For dissenting views, see Koopman & Sportiche (2008), Sportiche 2008 and 2011, where the alternation is viewed as a manifestation of allomorphy among different (types of) relative pronouns. Note that, in any event, Turkish and its Turkic sisters do not have relative pronouns in their regular, non-correlative type of RCs. Thus, while the accounts of the former group, based on a view of the alternation as a complementizer-alternation, do appear to carry over to the alternation of the nominalized predicate in Turkish RCs, the approach to the *que-qui* alternation in French based on a typology of relative pronouns does not.

⁶ This prohibition against locally A'-bound resumptive pronouns holds at least for subjects and direct objects, i.e. the highest terms of the Keenan and Comrie Accessibility Hierarchy (cf. Keenan and Comrie 1977 and 1979, and Comrie and Keenan 1979). For our purposes, it is the ill-formedness of locally bound *subject* resumptive pronouns that is crucial, and about which all native speakers of Turkish whom I know agree. While Meral (2006) claims to accept such resumptive pronouns, his examples show that he accepts not regular personal pronouns as locally A'-bound resumptive pronouns, but only *logophoric* pronouns, i.e. *kendisi* and other inflected forms of it (i.e. inflected forms of ‘self’). Such idiolects don’t challenge my analysis, because *pro* is a regular personal pronoun, and not a logophor, and thus should be ill-formed as a locally bound resumptive pronoun in RCs, even for Meral’s idiolect. (For an analysis of *pro* as a regular pronominal with respect to binding, cf. Kornfilt 1988 and related work.)

At a stage following the stage discussed above as Old Turkic, namely the stage usually referred to as Middle Turkic, which is usually assumed to start around the 13th C, the OT construction survives in some languages.

In (Early) Chagatai, a version of Middle Turkic, it is still possible to have the OT construction for non-subject RCs, with a subject which is not morphologically marked for Genitive:

- (21) evvali [Sultan Abu Sa'id Mirza qoy-gan] Mihr Nigar Xanım idi
 previous/first Sultan Abu Sa'id Mirza make-P Mihr Nigar Lady was
 'The first was Lady Mihr Nigar whom Sultan Abu Sa'id Mirza made [his fiancée]'.
 (Baburname, as cited in Schönig 1992/93)

Note that the subject is bare, and no overt agreement with the subject is to be seen on the predicate of the modifying clause in this example. The subject case is apparently still a default case.

But in some other languages of the same time, there is subject — predicate agreement. However, the agreement is mostly on the clause-external head of the relative clause (like some of the modern Turkic languages to be discussed shortly) rather than, as expected, on the modifier domain (i.e. on the clause's head, namely the participial predicate)⁷. For example, Khorezmian, another Turkic language of the Middle Turkic period, exhibits some examples where construal of the agreement on the clause-external head as agreement with a possessor would be semantically strange; thus, we have to analyze the agreement marker on the clause-external head as agreeing with the clause-internal subject, rather than with a possessor:

- (22) [täfä -niŋ kel -ür] yol -in -da
 camel-GEN come- PRFPART road-3.SG-LOC
 'On the way on which the camel came/comes along' [habitual]
 (Rabyu:zi: 13; Schinkewitsch 1927, as cited in Schönig 1992/93)

The subject bears overt genitive case. Agreement starts playing a role in case assignment, i.e. instead of default case, a system with case licensing under Agree (or Spec/Head agreement) is emerging (i.e. nominal agreement on the predicate and genitive subjects start emerging in embedded clauses that are nominalized).

At this point, the following question arises: How can the head agree with a non-local subject?

Answer: The modifying nominalized clause in Khorezmian (as well as its contemporary languages with similar properties) is not a CP, but rather a reduced Aspectual projection. The higher DP, headed by the (clause-external) head noun, is a full-fledged, non-reduced maximal projection, and the agreement marker on that head marks the DP as such. Thus, the relevant local domain to license subject case (which now has evolved into a licensed, rather than default, case) is that of the (higher) DP. Within that DP, the genitive case is indeed licensed locally in Khorezmian (and its kin).

Note that Khorezmian also has instances of the older type, with unmarked subject and no agreement; e.g.

- (23) män ayt-ma-mis hadi:s
 I say-NEG-PRFPART hadith
 'A hadith which I have not said' (Schönig 1992/93)
- (24) [Päyya:mbar oltur-γan] yär-dä oltur -ayın
 prophet sit -P place-LOC sit -(OPT)1.SG
 'I wish to sit in the place where the Prophet sat' (Schönig 1992/93)

It is not unusual for innovative constructions to be used along constructions which survive a previous stage, and this is what we find in some of the modern Turkic languages, too (where, apparently, the two constructions are essentially synonymous, with some pragmatic, discourse-based differences that are hard to pinpoint at the current stage of our knowledge). At this stage, this innovation with respect to genitive subjects (rather than subjects unmarked for case) and their co-occurrence with Agreement on the RC-head seems to be limited to certain Tenses or Aspects.

⁷ There are some examples in OT of this kind, too, but those are best analyzed as possessive constructions, with possessive agreement on the head, i.e. agreeing with a possessor, not as agreement with the subject of the modifier clause.

At a third stage (Early Ottoman=Early Anatolian Turkish, late Middle Turkic), we find the following complex situation: the nominal Agreement has become generalized to all Tenses/Aspects. I therefore claim that the Agreement morpheme now systematically marks a full-fledged syntactic domain, and thus shows up on the head of that phase. (I don't take a stand here on whether the Agreement morpheme is attached to D, or whether it projects in addition, or instead, an AgrS-phrase.) At this stage, yet another innovation has taken place: the difference in the predicate's morphology with respect to the target, i.e. a different morphology for subject RCs, and regular factive nominalization morphology for non-subject RCs. I thus claim that the modifier clause in these RCs is now a full CP. This analysis is supported by the fact that the subject Agreement morpheme is found on the predicate of the clause (as in MST, as we saw above), and not on the head of the relative clause.

- (25) [sän işlä-düg -ün] iş
 you do -FN -2.SG deed
 'The deed that you did' (Süheyl-ü Nevbahar [14th C]; Banguoğlu 1938, 115)

Note that the pronoun is not in the genitive; the unmarked case here is either default, or licensed by the (local) Agreement. At this stage, the genitive seems to be optional (perhaps only morphologically).

With the exception of the genitive subject (where the genitive is obligatory), the Modern Standard Turkish construction is the same: the same local Agreement on the participle is found on the nominalized predicate of the modifying clause, as we saw earlier:

- (26) [(biz-im) e_i oku-duğ -umuz] kitap-lar_i
 we-GEN read- FN -1.PL book-PL
 'The books that we read'

To recapitulate: the Agreement between subject and participial predicate is local in both constructions, i.e. the earlier one with overt Agreement on the head and the later one with overt Agreement on the participle.

A further development took place: during this third (Early Anatolian Turkish) stage, a new future Tense/potentiality Aspect morpheme was "borrowed" into this branch of Turkic from related languages. The Agreement morpheme associated with this form was the nominal form found on nominalized predicates, and, just as was *previously* the case for *all* Aspects, is found attached to the RC-head, rather than to the predicate. This means that the modifying clauses in these future tense/potential Aspect RCs were bare Aspect Phrases, and not full CPs:

- (27) [[var -acaq] yer -ümüz] İraq-raq -dur
 arrive -FUTPART place-1.PL far-somewhat -is
 'The place where we shall arrive is rather far'
 (Marzuba:n-na:me [14th C]; Kleinmichel 1974, 315)

The continuation of the sentence after the RC shows that the nominal Agreement form on the head noun cannot be interpreted as a possessive marker, but is indeed an Agreement marker with the subject of the modifier clause (with the Agree relation between the subject and the clause-external Agreement morpheme being local, i.e. within the same phase, given that the modifying clause is not a CP, but rather an AspP, and thus not a phase itself). The next example, from a different document from the same period, makes the same point:

- (28) [gäl -äcäk] yer -üm çünkü ol-a qapu-ŋ
 come- FUTPART place -1.SG because be-shall door-2.SG
 'Because the place to which I shall be coming is your door'
 (Süheyl-ü Nevbahar [14th C]; Banguoğlu 1938, 126.)

These two structures (i.e. the more evolved one with the subject agreement marker on the participle in non-Future/potential Aspect relative clauses, and the more archaic one with the subject Agreement marker on the head noun in Future/potential Aspect relative clauses) co-existed during this stage but "collapsed" into the "evolved" structure in a later stage, during Ottoman Turkish, when the marker for Future/potentiality became "regularized", and with it also its associated Agreement marker, which lost its restriction for purely nominal hosts and became a suffix able to show up on nominalized verbal predicates. This is also the situation we find in contemporary MST:

- (29) var -acağ -ımız yer
 arrive- FUTPART-1.PL place
 ‘The place where we shall arrive’

The Central Asian RCs have now arrived in the Mediterranean world, and in the process have grown from bare ASPPs to full-fledged CPs.

In the next part of the paper, I turn to the synchronic dimension of this study, and I discuss RCs in contemporary Turkic languages which “stayed behind” in Central and Northern Asia.

4. Other Turkic languages

In some contemporary Turkic languages, presence versus absence of Agreement is the only difference between the two main types of RCs (i.e. subject and non-subject RCs) and is determined similarly to Turkish (cf. Csató 1996).

4.1 Sakha (Yakut) RCs: the apparently long-distance subject—Agr relation

Relative clauses in Sakha resemble the Middle Turkic situation: They do have Agreement with the subject, and thus are different from their counterparts in Old Turkic. Also, this Agreement is placed on the head of the RC, which makes them similar to the innovative RCs in Middle Turkic. At the same time, the situation is somewhat different from what we saw in Middle Turkic: Sakha does not have remnants of the Old Turkic alternative RC, i.e. the construction where there is no Agreement at all in non-subject RCs. Also, Sakha has largely lost the morphology of the genitive case (with a very limited genitive, to be discussed later in this paper); therefore, even when the Agreement is present, the subject typically shows up bare, apparently in the nominative.

- (30) a. [it e_i ih -iex -teex] üüt_i -e
 dog (NOM) drink -FUT -MOOD milk -3.SG
 ‘the milk the dog should drink’ (Kornfilt & Vinokurova 2001)
- b. [[kini aqa -ta] e_i öl -ör -büt] oquh_i -a
 he(NOM) father -3.SG(NOM) die-CAUS -P ox -3.SG
 ‘The ox which his father killed’ (Kornfilt & Vinokurova 2001)

1. The subject—agreement relationship, and the licensing of the case on the subject by the Agreement on the RC-head, appear to violate locality. Because such relations are assumed to be local universally, the Turkish situation with the Agreement on the predicate is expected, while the situation in Sakha is surprising.

2. If the lack of overt *Agr* in subject RCs is to be explained via Generalized Binding, then the relationship between the subject “gap” as *pro* and its licenser, i.e. overt *Agr*, seems to violate locality, as well.

Can we derive locality where the source structure doesn’t seem to offer a local relationship? Is that relation similar to proposals made earlier in this paper for similar constructions in Middle Turkic, based on an Agree relationship between the Agreement element on the clause-external head of the entire construction, i.e. on D, along with the claim that the modifying clause is smaller than CP, and therefore not a full-fledged syntactic domain, while the DP is such a domain?

There is an alternative: Raising of the subject to the specifier position of the higher DP. However, I shall claim here that this alternative is not viable for Sakha.

I shall first consider possessive DPs in Sakha. This is relevant, because in the literature that favors the raising analysis of subjects in RCs in Altaic languages (e.g. Hale & Ning 1996 and Hale 2002 for Dagur Mongolian, and Aygen 2006 for Turkic languages such as Kazakh and Kazan Tatar), it is the specifier position of the higher DPs in RC constructions, i.e. the “possessor” position, which has been taken to be the target position of the subject’s raising.

4.2 *Possessive DPs in Sakha*

Possessive phrases in Sakha are quite similar to their counterparts in Turkish: The head of the possessor phrase, i.e. the possessee, agrees in phi-features with the specifier of the possessive phrase, i.e. with the possessor. The only difference is that the possessor is not in the genitive in Sakha in general. This is expected: as mentioned earlier, Sakha has, by and large, lost the genitive.

- (31) a. *kīis* *oquh-a*
 girl(NOM) ox -3.SG
 ‘The girl’s ox’ (Kornfilt & Vinokurova 2001)
- b. *kini* *aqa -ta*
 he (NOM) father -3.SG
 ‘His father’ (Kornfilt & Vinokurova 2001)
- c. *min* *oquh -um*
 I(NOM) ox -1.SG
 ‘My ox’ (Kornfilt & Vinokurova 2001)

Conditions under which a relic genitive does show up on DPs in Sakha are as follows: This happens when the possessor is itself complex. In other words, if the possessor is itself a possessive phrase, then the complex possessor does get marked with a morpheme which is a relic of a previously productive genitive case; the possessor within that complex possessor is, as expected, in the nominative:

- (32) a. [*kini* *aqa -tī*] -n *oquh -a*
 he (NOM) father -3.SG -GEN ox -3.SG
 ‘His father’s ox’ (Kornfilt & Vinokurova 2001)
- b. [*kīis* *oquh-u*] -n *kuturug -a*
 girl(NOM) ox -3.SG -GEN tail -3.SG
 ‘The girl’s ox’s tail’ (Kornfilt & Vinokurova 2001)

This relic genitive is limited to third person possessives, i.e. it does not show up after first or second person possessives.

4.3 *First empirical argument against subject raising in RCs: Sakha RCs with complex possessive subjects*

The relic genitive just mentioned does not show up on the subject of an embedded clause, even if that clause is nominalized, and even if the subject is a third person complex possessive phrase:

- (33) a. [[*Kini aqa -ta*] *üüt -ü*
 He father -3.SG (NOM) milk-ACC
ih -iex -teek -i] -n *bil -e -bin*
 drink-FUT-MOD -3.SG-ACC know-AOR-1.SG
 ‘I know that his father should drink the milk’ (Kornfilt & Vinokurova 2001)
- (33) b. *[[*Kini aqa -tī -n*] *üüt -ü*
 He father -3.SG -GEN milk-ACC
ih -iex -teek -i] -n *bil -e -bin*
 drink-FUT-MOD-3.SG -ACC know -AOR-1.SG
 Intended reading: The same as for (33a). (Kornfilt & Vinokurova 2001)

Conclusion: the relic genitive can show up only on (complex, third person) specifiers of bona fide DPs, enforcing the interpretation of such specifiers as possessives; subjects of nominalized clauses don’t qualify.

If the raising analysis were correct for the subject of Sakha non-subject RCs, we would expect for such a complex subject, if it is a third person, to be marked with the relic genitive. While this is possible, the resulting construction has somewhat different syntactic and semantic properties than the RC with the nominative subject, where the subject has obviously the same case it has in a regular embedding such as in (33a):

- (34) a. [[kini aqa -ta] öl -ör -büt] oquh-a
 he (NOM) father-3.SG (NOM) die -CAUS-P ox -3.SG
 ‘The ox which his father killed’ (Kornfilt & Vinokurova 2001)

The corresponding example with a DP that’s understood as the subject is, under this subject interpretation, less preferred (N. Vinokurova, personal communication). As alluded to above, that DP can, of course, be interpreted as the possessor and is fine under that interpretation:

- (34) b. ?[[kini aqa -ti] -n öl -ör -büt] oquh -a
 he(NOM) father-3.SG -GEN die-CAUS-P ox -3.SG

Reading with less preferred grammaticality judgment: ‘The ox which his father killed’

Interpretation with perfect grammaticality judgment: ‘His father’s ox which he (his father) killed’ (Kornfilt & Vinokurova 2001)

It appears to be questionable whether RCs with the genitive subjects are instances of genuine RCs at all. In addition to the fact, already mentioned, that they are less preferred (for the non-possessor, subject reading of the clause-initial DP), at least by a number of speakers, they seem to have different syntactic properties, as mentioned earlier. According to N. Vinokurova (p.c.), the traditional view of RCs with genitive subjects is to characterize them not as RCs, but as noun phrases with participial modifiers; this view, according to her, is supported by the fact that the putative genitive subject can be separated from the predicate, for example by other modifiers of the head; e.g.:

- (35) [[kini aqa -ti-n] **eder** atılas-pit] at-a
 he(NOM) father-3.SG-GEN young buy -P horse-3.SG
 ‘the young horse which his father bought’ (i.e. ‘the young, bought (by his father) horse’; interestingly, this can also mean ‘his father’s young horse which he, his father, bought’; N. Vinokurova, p.c.)

In contrast, the RC version with the nominative subject, preferred for the non-possessive subject reading for that DP, does not tolerate such separation of the subject from the predicate by material which is external to the clause:

- (36) *[[kini aqa-ta] **eder** atılas-pit] at-a
 he(NOM) father-3.SG (NOM) young buy -P horse-3.SG

Intended reading: ‘the young horse which his father bought’⁸

This is not surprising, if in (35), the genitive DP is base-generated as a possessor of the head, i.e. in Spec,DP position (which is consistent with the fact that this example also has a reading under which the genitive DP is interpreted as the possessor of the head), and if the predicate is not directly predicated of that possessor, but is a participial modifier of the head. As such a modifier, the participle can be preceded by other modifiers of the head. The “possessor” DP is then either syntactically (via a silent element, i.e. PRO) or perhaps only pragmatically linked to the participle and takes on a secondary reading as its subject. In contrast, (36) is a genuinely clausal headed construction, with the subject in-situ and hence in the nominative; therefore, no clause-external material such as an additional adjectival modifier of the head can be inserted into the clause.

Therefore, derived locality between the subject of the clause and the clause-external subject Agreement element on the RC-head via a raising operation to Spec,DP is empirically problematic and unlikely.

Conclusion: Sakha RCs with apparent genitive subjects are actually base-generated with a genitive DP in specifier-of-DP position, and are not the result of subject raising. They have a different syntax from that of a genuine RC, while the construction with nominative subject is indeed a genuine RC, but does not undergo raising of the subject to Spec, DP. But if we cannot derive a local relation between the subject and the clause-external Agreement marker via subject raising, there must be another way of doing so; I claim that this is via Agree,

⁸ These data about the contrasts between these headed constructions with nominative versus genitive subjects were originally provided by Nadya Vinokurova and were subsequently checked with Vladimir Monastirev and Svetlana Prokopiya. I thank all three native informants. Additional discussion of the raising versus in-situ controversy concerning Sakha can be found in Baker & Vinokurova (2010) and Kornfilt (2009b).

which can take place across the clause boundary, given that the clause in Sakha RCs is not a CP, and thus not a phase. Therefore, this Agree relationship is indeed local, as it takes place within a phase: the higher DP.

4.4 Second empirical argument against subject raising in RCs: Sakha RCs embedded in possessive DPs

There are instances in Sakha of RCs within higher possessive phrases, where the phi-features of the possessor and those of the subject differ:

- (37) [[aqa -n] öl -ör -büt] (min) oquh -um
 father-2.SG(NOM) die -CAUS -P (I[NOM]) ox -1.SG
 ‘My ox which your father killed’ (Kornfilt & Vinokurova 2001)

Note that the RC-head bears the Agreement marker for the possessor, i.e. for the specifier of the higher DP, and not the marker for the subject, which would have been third person singular. This is not (or perhaps not only) an issue of a hierarchy between different persons, with, for example, the first person winning over the third, as the next example shows:

- (38) [min öl -ör -büt] (kini) oquh -a
 I(NOM) die -CAUS -P he (NOM) ox -3.SG
 ‘His ox which I killed’ (Kornfilt & Vinokurova 2001)

Here, the (syntactically) higher “possessive Agreement” wins over the (syntactically) lower “subject Agreement”, although the winner is the third person Agreement marker, usually classified as lower on person hierarchies than the first person, over which it has obviously won in this example.⁹

The fact that not both Agreement morphemes, i.e. one for the subject, and one for the possessor, can be displayed on the head *oquh* ‘ox’, is due to a constraint against immediate sequences of the same type of morpheme (cf. Kornfilt (1986), where the constraint is labeled “the Stuttering Prohibition”, and Göksel 1997).

The importance of these examples arises from the following reasoning: If there is a possessor for the head in the construction, and if that possessor is of a different person than the subject, it becomes difficult or even impossible to rely on an analysis involving the raising of the subject to a “possessor” (i.e. Spec,DP) po-

⁹ A person hierarchy is somewhat involved, however. In data provided more recently with Vinokurova (p.c.), involving subjects or possessors that consist of third person possessive phrases (and which therefore can potentially be marked with the relic genitive morpheme), examples with third person subjects and first or second person possessors are judged to be fine, while examples with first or second person subjects and complex (and thus genitive) third person possessors are judged to be bad. Furthermore, examples where both the subject and the possessors are complex and in the third person are judged to be acceptable, with the possessors obligatorily in the genitive, and the subject preferably nominative. The less-preferred examples of this sort where the complex subject is also genitive would be characterized as analogically copying the possessive genitive in the construction, given that there is no licenser for it, i.e. no separate, dedicated agreement morphology; the head of the construction would be the entire possessive expression:

- (i) Lena aqa – tyn aldjap – pyt Masha aqa – tyn cahyy-ta
 Lena father-GEN break-PSTPRT Masha father-GEN watch-3.SG
 ‘Masha’s father’s watch which Lena’s father broke’

As with other RCs, the preferred counterpart has a nominative subject:

- (ii) Lena aqa – ta aldjap – pyt Masha aqa – tyn cahyy-ta
 Lena father-3.SG (NOM) break-PSTPRT Masha father-GEN watch-3.SG
 ‘Masha’s father’s watch which Lena’s father broke’

In such expressions, I claim, the entire possessive sequence *Masha aqatyn cahyyta* ‘Masha’s father’s watch’ is the head of the construction and is what’s relativized in (ii), and is the head of the construction in the “fake” RC in (i), too. The fact that this sequence cannot be interrupted, and that the possessor in particular cannot be separated from the rest of the possessive sequence by the relative clause (N. Vinokurova, p.c., and also checked with Monastirev and Prokopieva) supports this analysis.

It should be noted that not all native speakers of accept examples of possessed RCs (or, given the analysis advocated here, with the entire possessed head being the target of the RC, these should perhaps be called RCs with possession). In Göksel (1997), such examples are reported as ill-formed, based on the judgments of the author’s informants; Vinokurova herself and her informants do accept them as well-formed; Monastirev and Prokopieva seem to be somewhere between those extremes.

sition, given that the target position of this raising will be occupied by the overt possessor. Therefore, in the examples such as (37) and (38), the subject is in-situ, as maintained in this paper throughout.

Analysis: The in-situ subject and the Agreement on the head (i.e. on the D-head of the entire DP) are in a local relationship—a relation crossing the clause but nonetheless local, because the modifying clauses of RCs in languages such as Sakha are reduced with respect to their counterparts in Turkish. I propose to impute the category of TAM [Tense/Aspect/Mood]-P to them. They are not CPs. This is also why the Agreement element does not show up on the clause’s predicate: as proposed in Kornfilt (2008) and in Miyagawa (2008; 2011), Agreement marks a phase-head, and thus shows up on the CP-clause in Turkish RCs, and on the DP-head of Sakha RCs, given that in Sakha, the clause is not a CP (and in Turkish, the clause is a CP and thus the smallest relevant phase, i.e. lower and smaller than the higher DP-phase).

4.5 The A'-disjointness requirement in Sakha

In further support of locality for Agr (on D) and the in-situ subject, I advance the following consideration: Csató’s generalization holds in Sakha RCs just as it holds in Turkish RCs: subject RCs cannot exhibit local subject Agreement—due to the principle in (19), i.e. the A'-binding restriction.

The Sakha facts can be explained via this principle only if the RC-head and its Agreement marker are in a local relationship with the subject of the modifying clause.

Subject RCs in Sakha, showing the lack of Agreement morphology with the subject, thus contrasting with non-subject RCs, are illustrated by the following example:

- (39) [e_i üüt ih -iex -teex] it_i
 milk drink-FUT -MOD dog
 ‘The dog which should drink the milk’

There is no overt Agreement with the subject here—neither on the predicate of the modifier clause, nor on the RC-head. In this respect, the subject RC in Sakha is similar to its Turkish counterpart.

Note also the contrast with a Sakha non-subject RC:

- (40) [it e_i ih -iex -teex] üüt_i -e
 dog (NOM) drink-FUT -MOD milk -3.SG
 ‘The milk which the dog should drink’

In (39), then, the variable in subject position and the RC-head are in a local relationship, because they are in the same phase, by virtue of the embedded clause not being a CP. Agreement on the RC-head would therefore have violated the principle in (19), i.e. the generalized binding principle against *locally* bound resumptive pronouns.

The predicates of the embedded clauses are identical in these last two examples, even though (39) is a subject RC, and (40) is a non-subject RC. The subject—non-subject asymmetry we have observed and discussed for Turkish RCs holds only with respect to the absence versus presence of overt Agreement, but not with respect to different predicate shapes. Given that we had treated the difference in predicate shapes as a diagnostic for CP-status of the clause, again we conclude that Sakha modifying clauses in their RC-constructions are not CPs but rather are projections smaller than CP, thus making an Agree relation between the *Agr* element on the clause-external D and the clause-internal, in-situ subject possible. The fact that the A'-disjointness Condition treats the subject position and the clause-external Agreement element as standing in a local relationship to each other offers additional support to the analysis advocated.

4.6 *Modern Uighur RCs*

In Modern Uighur non-subject RCs, *Agr* is placed on the RC-head, similar to Sakha non-subject RCs. This is illustrated by the next example:

- (41) [sin -iŋ e_i izdä -ydiyan] adəmi -iŋ
 you -GEN search for -FUT man, person-2.SG
 köč -üp kät -ti
 move-CONV go/leave¹⁰ -PST
 ‘The person whom you will look for has moved away/left’ (Abdurishid Yakup, p.c.)

Also as in Sakha, the predicate of the modifier clause does not change its shape according to the target of the RC, while it can change its shape with respect to Tense or Aspect:

- (42) [e_i ürümçi -dɛ tur - idiyan] siŋl_i -iŋ
 Ürümçi -LOC live-FUT/PRES younger sister-2.SG
 ‘Your younger sister who lives in Ürümçi’ (LeSourd 1989)
- (43) [(min -iŋ) e_i tut - idiyan] at_i -im
 I -GEN catch -FUT/PRES horse-1.SG
 ‘The horse that I catch/will catch’ (LeSourd 1989)

The shape of the predicate can change with a change in the Tense/Aspect, even where the target remains the same:

- (44) [min -iŋ al -yan] xotun-um dunya-da bir
 I -GEN take -PST/PERF lady -1.SG world -LOC one
 ‘The lady I married is unique in the world’ (Abdurishid Yakup, p.c.)

There are additional similarities to RCs in Sakha; for example, subject RCs are similar to those in Sakha, as well: Csató’s Generalization holds in Uighur, too. In other words, subject RCs cannot display Agreement with the subject on the RC-head:

- (45) [e_i kel -gen] kiši_i
 come -PST/PERF person
 ‘A/The person who has come’ (Johanson 1998, 61)

However, somewhat differently from Sakha, we do find overt genitive marking in a productive way; in other words, genitive morphology is not limited to (certain) third person subjects. The genitive on the subject is dependent on the Agreement morphology on the RC-head:

- (46) a. [(sin -iŋ) e_i kör -idiyan] adəm_i -iŋ
 you -GEN see -FUT/PRES man -2.SG
 ‘The man you will see’ (LeSourd 1989)

Uighur has a second type of non-subject RC—a type which, in some other Turkic languages, is the only type available, and which we saw in the first part of this paper to have been the only RC type documented in the Old Turkic inscriptions; that type does not have any overt subject Agreement morphology at all—neither on the RC-head, nor on the predicate; crucially, the subject is bare, i.e. in the nominative:

- (46) b. [sen e_i kör -idiyan] adəm_i
 you see -FUT/PRES man
 ‘The man you will see’ (LeSourd 1989)

In the version with the genitive subject, the genitive is clearly licensed by the overt Agreement on the RC-head; a genitive subject leads to ill-formedness in the absence of overt Agreement:

¹⁰ While the root of this verb is glossed correctly for occurrences of this verb as a main verb in general, it is used here as part of a serial verb, and is thus used as a “light verb” or auxiliary.

- (46) c. *[sɪn -iŋ e_i kōr -idiyan] adəm_i
 you -GEN see -FUT/PRES man
 Intended reading: Same as in (46)a. and b. (LeSourd 1989)

There are two important factors about overt Agreement in Uighur non-subject RCs that emerge from these examples and which we have to note: 1. overt Agreement expresses the phi-features of the apparently non-local subject; 2. this overt Agreement licenses the genitive case on this seemingly non-local subject. Therefore, the question arises once again whether the subject is raised to the specifier position of the higher DP, i.e. to “possessor” position.

Modern Uighur does offer support for an in-situ analysis of the embedded subject, against a raising analysis; the evidence is of a sort which is different from what we had seen in Sakha, and is based on word order. If the subject could raise, out of its clause, to a higher position within the DP, then it should also be able to raise to other positions outside of its clause; however, this is not possible, as the following examples illustrate. The constituents used to check potentially possible positions will be, in addition to the subject, two different adverbs, and their construal possibilities with the embedded versus the matrix predicate will be important.

- (47) [[min-iŋ εtε bar -idiyan] yer -im]
 I -GEN tomorrow arrive -FUT place -1.SG
 enigki nahayiti yiraq
 obviously very far
 ‘The place where I will arrive/go tomorrow is obviously very far’
 (Abdurishid Yakup, p.c.)

The adverb of the modifier clause, εtε ‘tomorrow’, can freely scramble over the subject, as long as this is local scrambling, i.e. within the clause:

- (48) [[εtε min-iŋ bar -idiyan] yer -im]
 tomorrow I -GEN arrive -FUT place -1.SG
 enigki nahayiti yiraq
 obviously very far
 Same meaning as (47) (Abdurishid Yakup, p.c.)

Similarly, the root adverb *enigki* ‘obviously’ can freely move within the root clause:

- (49) enigki [[εtε min-iŋ bar -idiyan] yer -im]
 obviously tomorrow I -GEN arrive -FUT place -1.SG
 nahayiti yiraq
 very far
 Same meaning as (47) and (48) (Abdurishid Yakup, p.c.)

However, neither the genitive subject, nor the adverb of the embedded clause can move into the root clause:

- (50) * min-iŋ enigki [[εtε bar -idiyan] yer -im]
 I -GEN obviously tomorrow arrive-FUT place -1.SG
 nahayiti yiraq
 very far
 Intended reading: Same as in (47), (48), and (49) (Abdurishid Yakup, p.c.)

- (51) *εtε enigki [[min-iŋ bar -idiyan] yer -im]
 tomorrow obviously I -GEN arrive -FUT place -1.SG
 nahayiti yiraq
 very far
 Intended reading: Same as in (47), (48), and (49) (Abdurishid Yakup, p.c.)¹¹

¹¹ These examples were constructed along similar ones in LeSourd (1989). I have followed here the guidance of Dr. Abdurishid Yakup, a native Uighur speaker and Turkologist, who helped me construct examples which he found to be more colloquial and acceptable.

(Note that in (49), the immediate sequence of two adverbs is fine, as long as the root adverb is higher than the embedded adverb; the reversed order and thus hierarchy between the two adverbs leads to ill-formedness in (51).)

While the ill-formedness of these last two examples might be explained by referring to subjacency effects, i.e. to the unsuccessful attempt to move constituents out of a complex DP, this is actually a piece of evidence against a raising analysis of genitive subjects in Uighur non-subject RCs.

In Uighur, as in other Turkic languages, possessors in possessive phrases with an Agreement marker on the head scramble quite freely out of the possessive phrase. Thus, the fact that (50) with its topicalized subject is ill-formed despite the Agreement marker on *yer* ‘place’, the RC-head, shows that the topicalization originated from the subject position, rather than from the position of the specifier of the higher DP, i.e. from the possessor position—and it is the possessor position which would have been the source of the topicalization, if the subject had undergone raising to Spec, DP.

Conclusion: the genitive subject in Uighur non-subject RCs remains in-situ.

Secondly, the well-formedness of (48), in conjunction with the preceding discussion, also argues against raising of the genitive subject to a higher Spec,DP position. If the subject had risen to the specifier position of the higher DP, so as to enter a local relationship with the Agreement element on the RC-head, then the temporal adverb must also have risen to an even higher position than the subject (given that the adverb precedes the subject), presumably to some high topic position. But ill-formed examples such as (51) show that adverbs can scramble only locally; hence, we conclude that in (48), the adverb has scrambled to a clause-internal topic position; but if the adverb is still within the clause, then the genitive subject that follows that adverb is in-situ and has not undergone raising.

Kazakh and Kirghiz, two Turkic languages with RCs very similar to those in Uighur, offer similar evidence.

Kazakh:

- (52) Erteŋ men-iŋ älbette bar -atın žer -im alısta
 Tomorrow I -GEN certainly arrive-FUT place-1.SG far
 ‘*The place where I will arrive tomorrow is certainly far.’
 ‘The place where I will certainly arrive tomorrow is far.’ (Raihan Muhamedowa, p.c.)

Here, the temporal adverb of the embedded clause and the genitive subject precede the adverb which, in an “unscrambled” counterpart, is primarily construed with the matrix predicate:

- (53) Älbette erteŋ men-iŋ bar -atın žer -im alısta
 Certainly tomorrow I -GEN arrive-FUT place-1.SG far
 ‘The place where I will arrive tomorrow is certainly far.’
 ‘The place where I will certainly arrive tomorrow is far.’ (Raihan Muhamedowa, p.c.)

In (53), *älbette* ‘certainly’ can be construed with the embedded predicate, but it can also be construed with the matrix predicate ‘be far’. This reading is not possible in (52), where the same adverb can only be construed with the embedded predicate ‘arrive’. This shows that neither the embedded temporal adverb, nor the genitive subject of the embedded clause, are able to move out of that clause; if they had been able to, the second adverb *älbette* ‘certainly’ should have been able to act as a matrix constituent, which it is not.

Kirghiz:

The sentence-initial adverb *sözsüz* ‘doubtlessly, certainly’ can be construed with either the embedded or the matrix predicate:

- (54) Sözsüz Ali-nin erteñ bara tur -gan žer -i uzak
 Certainly Ali-GEN tomorrow arrive AUX-P place-3.SG far
 ‘The place where Ali will arrive tomorrow is certainly far’
 ‘The place where Ali will certainly arrive tomorrow is far’ (Kenjegül Kalieva, p.c.)

In the following example, where the genitive subject precedes the adverb *sözsüz* ‘certainly’, that adverb can only be construed with the embedded predicate:

- (55) Men-in sözsüz erteñ bara tur -gan žer -im uzak.
 I -GEN certainly tomorrow arrive AUX -P place-1.SG far
 ‘*The place where I will arrive tomorrow is certainly far’
 ‘The place where I will certainly arrive tomorrow is far’ (Kenjegül Kalieva, p.c.)

The genitive subject cannot move out of its clause, into the matrix clause. If that subject had risen into Spec, DP of the RC, then such movement into the matrix should not have been problematic. I conclude that the genitive subject in Kirghiz non-subject RCs, just as its counterpart in Uighur and Kazakh, remains *in-situ*.

Let us now turn back to the locality of the relationship between the genitive subject and the overt Agreement on the RC-head: Both for the sake of phi-feature Agree (cf., among others, Chomsky 1999 and 2008), and for the sake of genitive case licensing, this relationship should be local. If this can’t be achieved via the raising of the subject to the specifier of the RC’s head/D, then it must be the case that the probe-goal relationship in question is indeed local, in spite of being established with the *in-situ* subject.

Proposal: The same approach already proposed for Sakha (as well as for Old and Middle Turkic) can succeed for Uighur, as well as for Kazakh and Kirghiz: the modifier clause is not a CP, but just a bare TAM-phrase. Therefore, the subject and the RC-head/D are in the same phase (namely, the DP), and the relationship between the two is thus local. The fact that Csató’s Generalization holds, as well as the lack of any “*que-to-qui* conversion” effects involving C and the level of CP in these “Central Asian” languages, are two pieces of independent evidence that support this proposal.

5. Conclusions

This study proposes that non-default, *licensed* subject (and possessor) case is licensed locally, within a relevant, complete syntactic domain, via an Agree relationship between a probe (D and the associated *Agr*, or C and the associated *Agr*), and the goal, i.e. the subject. In constructions such as relative clauses, where a clause is headed by a clause-external nominal, licensed subject case is possible on an *in-situ* subject, licensed by C (and the associated *Agr*), as in Turkish, when the clause is a CP. When the clause is smaller than a CP, and thus smaller than a complete syntactic domain, the probe can be clause-external, i.e. D and the associated *Agr*; here, the smallest relevant phase is the DP; examples were Middle Turkic as well as Sakha, Uighur, Kazakh and Kirghiz.¹²

In its historical part, the paper has also claimed that Turkish must have developed larger functional projections in the course of its development, and that in particular the CP is a “Mediterranean” development, which sets Turkish (and its very close relative, Azerbaijani/Azeri) apart from its Central and Northern Asian sister languages. I would tentatively suggest that those languages have also expanded their inventory of functional projections, e.g. having already inherited an Aspect-Phrase projection, they have probably developed a Tense-Phrase projection, but that they have not (yet?) developed a CP (at least not in their externally headed constructions such as RCs and noun-complement constructions).

¹² A somewhat different approach to these facts was taken in Kornfilt (2005), based on Kayne (1994).

Abbreviations:*A. Orkhon Inscriptions*

BK: Bilge Kagan
 O: Ongin
 KT: Kül Tigin
 T I: Tonyukuk, first monument
 E: Eastern façade of a monument
 W: Western façade of a monument
 F: Front façade of a monument
 S: Southern façade of a monument
 N: Northern façade of a monument

The numbers after the abbreviations for the monument's name and the direction of a façade refer to the line from which the example is taken.

B. Glosses

ABL	Ablative
ACC	Accusative
AGR	Agreement
AGR(S)P	(Subject) Agreement Phrase
AOR	Aorist
ASP	Aspect
ASPP	Aspect Phrase
AUX	Auxiliary
CAUS	Causative
CFC	Complete Functional Complex
CMPD, CMPDMRK	Compound, Compound marker
CONV	Converb
CP	Complementizer Phrase
DP	Determiner Phrase
FN	Factive Nominalization
FUT	Future
FUTPART	Future participle
GEN	Genitive
LOC	Locative
MOD	Modal
MST	Modern Standard Turkish
NEG	Negation, Negation marker
NOM	Nominative
NP	Noun Phrase
OP	Operator
OPT	Optative
OT	Old Turkic
P	Participle
PASS	Passive
PL	Plural
PRES	Present
PRF	Perfect
PRFPART	Perfect Participle
PRSPART	Present Participle
PRSPRG	Present Progressive
PST	Past
PSTPRT	Past Participle
RC	Relative Clause
SG	Singular

T	Tense
TAM	Tense/Aspect/Mood
TP	Tense Phrase
VP	Verb Phrase
1.	First person
2.	Second person
3.	Third person

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