Leipzig Spring School on Linguistic Diversity: Topics in Turkic Syntax Jaklin Kornfilt March 26-28, 2008 kornfilt@syr.edu

Agreement – Subject Case Correlations in Turkish and Beyond

Locality in terms of AGREE and generalized binding.

The modifier clauses in some of the Turkic languages are more reduced than in others.

I claim that the non-reduced clauses are CPs, while the reduced ones are not; rather, those are bare Tense/Aspect/Mood phrases.

This difference gives rise to typological correlations across Turkic languages that have not been described before: While the RCs that host modifier clauses with CP status show *Complementizer Agreement* (CA) effects, RCs with reduced, non-CP clauses don't. This contrast goes along with the placement of subject Agreement morphology: In RCs with CPmodifier clauses, the *Agr* element is placed on the predicate of the modifier clauses; in RCs with reduced, non-CP modifier clauses, the *Agr* is placed on the RC-head.

The surface realizations, and thus observations, of these analytic claims are as follows: Languages whose RCs bear subject Agreement on the RC-head don't exhibit a special predicate form on the modifier clause in subject RCs; RCs whose subject Agr is on the predicate of the modifier clause in non-subject RCs exhibit a special predicate form for subject RCs—a CA-effect.

On the other hand, all of these languages conform to a larger generalization: Subject RCs never display overt *Agr* with the subject, while non-subject RCs do.

I propose to explain this asymmetry, common to all Turkic languages, via generalized binding, i.e. via a ban (for which there is independent evidence) against locally A'-bound pronominals, and the claim that *pro*, locally licensed and identified by overt *Agr*, is a regular pronominal that obeys that ban, just as overt pronominals do.

2. Turkish Relative Clauses

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2.1. Syntactic and morphological properties of Turkish RCs:

A subject as the target of relativization:

 (1) a. [[ei geçen yaz ada -da ben-i gör-en] kişi -leri] last summer island-LOC I -ACC see-(y)An person -PL
 'The people who saw me on the island last summer' (No phi-feature morphology; special nominalization form on predicate)

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

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

¹ There are Turkic languages where non-subject RCs don't have overt *Agr* at all, not even for non-subject RCs; this paper considers only those languages that do have overt *Agr* for their non-subject RCs.

I claim that the apparent "non-subject RC construction" is the "unmarked case" of general nominalization, with -DIK for indicative, and Agr as subject Case licenser. (For arguments supporting the claim that subject Case, and especially the Genitive as the nominal subject Case, is licensed by local overt Agr, cf. Kornfilt 1984, 2003, and 2006; counterarguments against some claims that the Genitive is independent from Agr are advanced in Kornfilt 2003 a, especially section 8, and 2006.) The -DIK + Agr sequence marks *all* (argument and adjunct) indicative embeddings; e.g. an embedded nominalized indicative clause has the same morphology, which is thus shown to be not limited to RCs:

(2) [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 -PAST-1.SG 'I heard that the students saw me on the island'

Non-subject RCs are therefore not particularly noteworthy in Turkish, and they are best characterized as regular embedded nominalizations (with the additional property of being operator-variable constructions adjoined to nominal heads that they are predicated of). I claim that there is no "object relativization" or "non-subject relativization" morphology. The morphological shape of the nominalized predicates in non-subject RCs can thus not be a special form; it has to be the same as that found on non-RCs embeddings, and this is not a coincidence. Furthermore, if the account is on the right track, then this account should be extendable to other related languages.

In contrast, the noteworthy RCs in Turkish are subject RCs, and the questions to be asked here are why their predicates show up in shapes different from their counterparts in most other embeddings, and why no overt agreement with the (targeted) subject is possible.

2.2. The A'-Disjointness Requirement in Turkish RCs

I start with the second question, i.e. the one about the ban against agreement with subject targets. I claim here that this issue is linked to a prohibition in Turkish against locally A'-bound variables, i.e. against locally bound resumptive pronouns.

Relative clauses in Turkish exhibit island effects, at least where relativization out of relative clauses is concerned:²

 (3) *[Hasan-ın [[ei geçen yaz ben-i gör-en] kişi -leri]-i Hasan -GEN last summer I -ACC see -(y)An person-PL -ACC
 ej tanı -dığ-1] adaj know -FN -3.SG island
 Intended reading: 'The island (such that) Hasan knows the people who saw me (on it) last summer'

Turkish does not tolerate locally A'-bound pronominal variables—at least those for high terms in the Keenan-Comrie hierarchy, such as subjects and direct objects.

A *subject* as the target of relativization:

² Relativization out of coordinate structures is ill-formed, as well. However, claims have been made in the literature that this is due to certain parallelism constraints specific to coordinate structures, rather than to subjacency-based effects. It would take us too far afield to address this controversy here; this is why I limit myself to illustrate islandhood effects via relativization out of relative clauses. Note that I have claimed elsewhere that the Sentential Subject Constraint, also usually explained via subjacency, holds in Turkish (cf. Kornfilt 2003 b), and can thus be used as an additional islandhood effect.

(4) a. $[_{C[N]P} Op_i [_{AGR[N]P}(*o_i/*kendisi_i) ada -da ben-i gör-en]] kişi_i he/himself island-LOC I -ACC see -(y)An person 'The person' who'_i (*he'_i) saw me on the island'$

A *direct object* as the target of relativization:

(4) b. $\begin{bmatrix} c_{[N]P} \mathbf{Op}_{i} \begin{bmatrix} AGR[N]P \ pro \end{bmatrix}$ ada -da (***on-u**_i/***kendisin-i**_i) gör-düğ-üm]] kişi_i $\begin{bmatrix} 1.SG \end{bmatrix}$ island-LOC **he-ACC/himself** -ACC see -DIK-1.SG person 'The person_i whom I saw (***him**_i) on the island'

Generalization: overt resumptive pronouns are ill-formed in both subject- and nonsubject RCs, where the pronoun is locally A'-bound. Note that stressing *locality* in this prohibition against A'-binding of the resumptive pronoun is important, because such pronouns are relatively well-formed when they are long-distance bound, e.g. in "repairs" of island violations.³

(5) The A'-disjointnessRequirement:

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A pronoun must be (A'-) free in the smallest Complete Functional Complex (CFC) which contains it. (In addition to Aoun 1986, see also Borer 1984, Ouhalla 1993, and Kornfilt 1984 and 1991, among others.)

The effect of this requirement will be that overt resumptive pronouns (at least those for high terms in the Keenan-Comrie hierarchy) will be ill-formed when they are locally bound. This is borne out by the examples we just saw. The same explanation carries over to resumptive *pro* in subject position.

The assumption that overt agreement morphology is needed to license *pro* is argued for in Kornfilt (1991) and related work; the assumption that if *pro* is licensed in a given syntactic structure, the empty category thus licensed must be *pro* is taken over from Jaeggli (1984). Given that *pro* is, syntactically, a regular pronominal in Turkish with respect to A-binding conditions, it is to be expected that it should also obey A'-binding conditions. Thus, the resulting effect of a prohibition against overt agreement in subject RCs (with subject "gaps") falls out naturally from of generalized binding: these subject gaps cannot be occupied by resumptive *pro*; since such a gap which is in a local relationship with overt agreement must,

³ There is at least one native speaker of Turkish who claims to accept locally A'-bound resumptive pronouns; however, he appears to accept locally A'-bound logophoric resumptive pronouns, rather than regular personal pronouns in this capacity. In the examples in (5) in the text, the resumptive pronouns glossed as reflexives are such logophors. (For a discussion of logophoric pronouns in Turkish, as distinct from either personal pronouns or genuine reflexives, cf. Kornfilt 2000) This speaker's judgments on locally A'-bound resumptive pronouns are reported in Meral (2006). It is interesting to note that all of the numerous examples in that paper (with the possible exception of one) illustrate logophoric, rather than personal, pronouns used as resumptive pronouns. It appears, then, that even for this "dialect", assuming that this speaker represents other speakers with similar idiolects, regular pronouns cannot function as locally bound resumptive pronouns. Idiolects such as Meral's don't challenge my analysis, because pro is a regular personal pronoun, rather than a logophor (a silent element such as pro can obviously not be used as an emphatic, and empathetic, pronoun, which are the typical usages of a logophor), and thus should be ill-formed as a locally bound resumptive pronoun in RCs, even for Meral's idiolect, which is more permissive than mine (and that of all the native speakers I have polled) with respect to locally A'-bound resumptive pronouns. (For discussion of the view that pro is a regular pronominal with respect to binding, cf. Kornfilt 1988 and related work.)

according to Jaeggli, be *pro*, no such agreement is allowed in instances where the licensed *pro* would be a locally A'-bound variable, i.e. a resumptive *pro*, as it would be in subject RCs.⁴

Extensive discussion of examples and evidence for *pro* in Turkish and its syntactic properties and distribution can be found in Kornfilt (1984), (1991), and (2003).

2.3. Obligatoriness of pro whenever licensed

I assume here, and have argued in detail in the works mentioned, that overt, rich, complete agreement morphology locally licenses and identifies a pronominal subject in Turkish, *pro*, and that this silent element displays the syntactic behavior expected from a genuine and typical pronominal. This claim offers further support for a principle first proposed in Jaeggli (1984):

(6) If an empty category is licensed and identified by *Agr*, it *must* be *pro*. (Jaeggli 1984; emphasis added: JK)

2.4. CA-effects

Let us now ask why the language bothers with different predicate markings, if all effects follow from the presence versus absence of overt agreement morphology.

I suggest here that this is due to C(omplementizer) A(greement). Two pieces of evidence argue in favor of this analysis: 1. The "subject nominalization" form shows up (productively) only in RCs, i.e. in operator-variable constructions, thus arguing in favor of such an operator, and thus also in favor of the position of such an operator, usually assumed to be the specifier of CP. Thus, we could view CA as an instantiation of the general agreement between a head and its specifier. ⁵ 2. This is a form different from subject-predicate agreement. Since regular phifeature agreement would violate the "A'-disjointness condition", a form is needed without such agreement. But since, according to the proposal, the language does have CA, this CA must be expressed, and it is, via the special (agreement-less) morphology. (Similar to $que \rightarrow qui$ in French.)

⁴ This is in contrast to the Anti-agreement effect proposed in Ouhalla (1993), where the observation is made that in some languages which otherwise do have overt agreement, such agreement is prohibited in subject-targeting syntactic phenomena. That observation is labeled "the Anti-agreement effect", without an attempt to tie in this observation with binding.

In much of earlier generative literature, complementizer-subject agreement was taken to have a beneficial effect in circumventing ECP-effects (or "complementizer-trace effects", depending on the model used). The status of the ECP is rather unclear now, and the question of whether CA is primarily based on a probe-goal relationship between the complementizer and the subject is peripheral to our concerns here; I will therefore not discuss it further. At any rate, I do assume that the operator in a subject RC is coindexed with the variable in subject position (a familiar and widely accepted assumption for other languages), and that therefore the complementizer, due to its agreement with the operator, also agrees with and thus licenses the variable in subject position. Things are slightly different in non-subject RCs. In those, T bears overt agreement (in phi-features) with the subject. The operator, co-indexed with a non-subject variable, checks its wh- (or perhaps Rel-operator) features against the complementizer. It does not agree with it in phi-features, however, due to the fact that the subject agreement raises from T to C, and agreement in terms of phi-features with the non-subject operator in Spec, CP position would lead to conflict. In fact, the possibility of agreement between the operator in Spec,CP and C in terms of phifeatures is possible (or perhaps even obligatory) in subject RCs due to the fact that in those RCs, there is no phi-feature agreement that has risen to C (because no overt agreement is possible in those RCs due to generalized binding restrictions, as we have seen earlier), and that C is in need of agreement. This treatment is in line with recent work by Miyagawa (cf. Miyagawa forthcoming, 2001, and 2006), where agreement is assumed to be in C.

Since an operator is involved, this special CA form must be due to a process taking place at the level of CP (cf. Carstens 2003), i.e. at the CP-phase.

3. Separating A'-disjointness from CA: Sakha, as a representative for other Turkic languages

We have now divorced the issue of the special shape that the predicate of the modifier clauses in subject RCs assumes in Turkish from the issue of the lacking overt subject agreement form in such RCs. We thus predict the possibility that some languages might exhibit the constraint in (5) against locally bound resumptive pronouns without, however, also showing evidence of CA. This prediction is correct.

In some 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); i.e. the same shape of nominalization morpheme on the predicate is used in the modifier clause, but overt agreement (albeit on the RC head, not on the predicate of the modifier clause) is possible only with a non-subject target. In the terms of the approach I have proposed for Turkish RCs, the generalized binding condition (5) holds for these languages, too (pace a somewhat different computation of locality, to be addressed later in this paper); however, these languages do not have CA. The RCs in such languages exhibit overt agreement with the subject on the head of the (non-subject) RC, rather than on the predicate; they differ, however, with respect to the case of the subject: in Sakha (often also called Yakut), a language spoken in northern Siberia, the genitive has largely disappeared from the language. Therefore, in most non-subject RCs (which do exhibit the usual Turkic nominalized modifier clause), as well as in nominalized embedded clauses, the subject shows up in the nominative, i.e. in the bare form, rather than in the expected genitive.

3.1. Sakha (Yakut) RCs: a general outline, and the apparent long-distance subject—Agr relation

- (7) a. [it ei ih -iex-teex] üüt -e
 dog(NOM) drink-FUT-MOOD milk-3.sG
 'the milk the dog should drink' (Kornfilt & Vinokurova 2001)
- (7) b. [[kini aqa -ta] ei öl-ör -büt] oquhi-a he(NOM) father -3.SG(NOM) die-CAUS -P ox -3.SG 'The ox which his father killed' (Kornfilt & Vinokurova 2001)

In (7a.), the agreement element, reflecting the phi-features of the subject in the modifier clause, i.e. third person singular, is attached to the head of the RC, *üüt* 'milk', and not to the predicate *ihiexteex* 'should drink', as it would have been in Turkish. In (7b.), the subject is more complex; it consists of a possessive phrase. The agreement element that agrees with its phi-features is attached to the head of the RC, as well. (The difference in the two agreement elements is due to vowel harmony.)

One question that arises immediately is about the locality of the subject—agreement relationship. Because such relations are local, the Turkish situation is expected, while the situation in Sakha is surprising.

A second question is linked to locality, as well. If the lack of overt agreement in subject RCs in Sakha is to be explained in the same way as in Turkish, i.e. via generalized binding (and the principle in [5]), then the relationship between overt agreement and the subject of the embedded clause must be local, so that the overt agreement can license and identify the empty

subject as a pronominal, i.e. as pro. Yet, this relationship does not appear to be local syntactically.

In order to create such a local relationship in similar constructions in other languages (e.g. Hale 2002 and Hale & Ning 1996 for Dagur, a Mongolian language, and Aygen 2006 for Tuvan, Kazakh, and Kazan Tatar, Turkic languages), raising to the specifier of the higher DP has been proposed. I would like to show that this analysis cannot hold for Sakha, nor can it hold for Modern Uighur, to which I will turn later. The question of whether this raising analysis indeed holds for Dagur, Tuvan, Kazakh and Kazan Tatar will therefore have to be addressed and reexamined carefully; I leave such examination to future research and turn now to arguments that show why the raising analysis does not hold for Sakha RCs.

One crucial issue is whether both the specifier position of the higher DP and the subject position of the modifier clause in RCs can be both filled at the same time, and if they can, how they differ from each other. It turns out that this is possible, with the higher DP-specifier interpreted as a possessor of the RC-head, and the lower subject being interpreted as a genuine subject. Further, the higher DP-specifier is marked with the genitive (i.e. a relic genitive which has survived and is limited in ways to be discussed), while the subject is marked with the nominative.

Another question is that of the *Agr* element on the RC-head in such constructions, i.e. whether there can be two or only one, and if the latter, which one survives.

Before investigating these questions, let us first look at simple possessive phrases in Sakha.

3.2. Possessive DPs in Sakha

These are similar to their counterparts in Turkish, in that 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—not surprising, due to the general demise of over genitive in that language:

- (8) a. kïïs oquh-a girl(NOM) ox -3.SG 'The girl's ox'
- (8) b. kini aqa -ta he(NOM) father -3.SG 'His father'
- (8) c. min oquh -um I(NOM) ox -1.sg 'My ox'

When the possessor is itself complex, e.g. if it is 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:

(9) a. [kini aqa -tī] -n oquh-a he(NOM) father -3.SG -GEN ox -3.SG 'His father's ox' (9) b. [kīīs oquh-u] -n kuturug-a girl(NOM) ox -3.sG -GEN tail -3.sG 'The girl's ox's tail'

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This relic genitive is limited to third person possessives, i.e. it does not show up after first or second person possessives.⁶

3.3. Sakha RCs with complex subjects: An argument against subject raising in RCs

This genitive does not show up on the subject of an embedded clause, even if that clause is nominalized, and even if the subject is a complex possessive phrase:

- (10) a. [[Kini aqa -tī] üüt -ü ih -iex-teeq -i] -n bil -e -bin He father -3.SG (NOM) milk-ACC drink-FUT-MOD -3.SG-ACC know-AOR-1.SG 'I know that his father should drink the milk'
- (10) b. *[[Kini aqa -tï -n] üüt-ü ih -iex-teeq-i] -n bil -e -bin He father -3.SG-GEN milk-ACC drink-FUT-MOD-3.SG -ACC know -AOR-1.SG Intended reading: The same as for (10a).

It appears, then, that 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 don't qualify.

If the raising analysis is 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. We see, however, that this is not possible, and that the subject surfaces in the nominative, just as it does in a regular embedding such as in (10a):

- (11) 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)
- (11) b. *[[kini aqa -tī] -n öl -ör -büt] oquhj-a he(NOM)father-3.SG -GEN die-CAUS -P ox -3.SG Intended reading: 'The ox which his father killed'(Kornfilt & Vinokurova 2001)

The grammatical (11a) is a repetition of the previous (7b). We now see the importance of the boldfaced nominative gloss for the subject (and, of course, of the ill-formedness of (11b), with the genitive-marked subject). If the complex subject, *kini aqata* 'his father', had risen to the specifier position of the higher DP, it would have been obligatorily marked with the genitive, and this is clearly not so.⁷ We thus see that the subject of the modifier clause in this

⁶ The observation that Sakha still has a relic of the genitive has been made in the Turkological literature; cf. Stachowski & Menz (1998): 428.

The subject of the modifier clause in such RCs can, actually, be sometimes marked with the relic genitive, but is then primarily interpreted as the possessor of the RC-head, just as it would in Turkish. I would analyze such constructions with the genitive possessor base-generated in the higher specifier position, just as its Turkish counterpart, and have it co-indexed with the empty subject *pro*. The validity of this analysis is further supported by the possibility of embedding such RCs within possessive phrases

RC is still within that clause, and the question of the apparent violation of locality between the subject and the agreement marker on the RC-head, rather than on the predicate, still needs to be addressed.

3.4. Sakha RCs embedded in possessive DPs: Additional arguments against subject raising

Before doing so, I would like to consider additional instances of RCs within higher possessive phrases, where the phi-features of the possessor and those of the subject differ:

 (12) [[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 an issue of a hierarchy between different persons, with, say, the first person winning over the third, as the next example shows:

(13) [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 here.

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). As is usually the case in such instances, at least in Turkish, the (syntactically) higher morpheme wins. One interesting question that arises is that of the licensing of the subject and its case, once the agreement devoted to the subject's phi-features is not overtly expressed. Interesting as this question is, I shall not address it here; this issue is peripheral to our present concerns.

What's important for us, however, is that in Sakha, just as in Turkish, the specifier position of the higher DP can be filled independently from the subject position of the modifier clause in a RC, and that the two positions receive separate and distinct thematic roles, as in (12) and (13).

This argues against adopting the raising analysis proposed in the sources cited for Sakha, for two reasons:

1. in a language that marks agreement with the subject in non-subject RCs on the RChead, the subject is realized in the subject rather than in the possessor position; we see this both in:

1.a.: instances such as (12) and (13), where the putative target position of the raising is already filled, and

with possessors that differ in phi-features from the subject, and which agree with the RC-head. This is illustrated in the text and shows that in Sakha, just as in Turkish, the specifier of the higher DP and the subject position of the modifier clause can be filled with distinct DPs, each with its own theta-role, arguing further against a raising analysis

1.b.: in examples such as (11), where the subject could have risen to such a position (because it is not independently filled), but it clearly has not done so, because it would have been marked with the relic genitive, and yet it is not: the subject is in the nominative form, typical for subjects, and impossible for complex possessors.

2. We see that the specifier position of the higher DP is, and has to be, interpreted as a possessor; yet, in the Sakha RCs we have looked at, the subject is not interpreted as a possessor. Thus, raising the subject to a position with its own thematic role would make wrong factual predictions, and it would violate the Theta-Criterion.

Having thus shown that in Sakha non-subject RCs, the subject is in its clause-internal position and has not risen to the specifier of the higher DP, we have to face our original question of how the subject can agree with overt agreement on the RC-head, i.e. with an element which is not syntactically local to it.

Our strategy will have to be towards finding a way to make this apparently non-local relationship into a local one.

I propose to achieve this, by analyzing the modifying clauses of RCs in languages such as Sakha as further reduced from their counterparts in Turkish, and to impute the category of TP, or Asp/MoodP to them, rather than that of CP. This claim would have repercussions regarding island effects, among others. While I have not yet had the opportunity to verify those, I do think that this proposal has obvious merits and other kinds of support.

Among the latter, we observe that languages with subject agreement markers on the RChead rather than on the local predicate tend to have very rich aspect and mood morphology on the embedded predicates, i.e. even on nominalized predicates, richer than on their Turkish counterparts. Thus, it is appropriate to categorize the projections of such predicates as Asp/MoodPs, as the highest projection. Also, the fact that in such languages, non-subject RCs do not exhibit subject agreement on the modifier clause can be interpreted as lack of a CPlayer on the clause, under the assumption we have made here that the agreement raises to CP, as discussed earlier in this paper, following work by Miyagawa. If there is no CP, there is no C for the agreement to raise to. If the structure is such that the RC-head is local to the subject, then it would make sense for the agreement to raise to that head instead. Given that CP and DP are phases, this would mean that the subject and the RC-head can be affected in the same phase, and this is what we have in RCs such as Sakha.

3.5. The A'-disjointness requirement in Sakha: In support of Agr in a local relation with the in-situ subject

Another piece of evidence in support of my proposal is the fact that Csató's generalization holds in Sakha RCs just as it holds in Turkish RCs: subject RCs cannot exhibit local subject agreement—an observation which we explained by resorting to the principle in (5), i.e. the A'binding restriction. However, the Sakha facts can be explained via this principle only if the RC-head and its agreement marker are in a local relationship to the subject of the modifying clause. If they are not (and they would not be, if that clause were a CP and therefore the subject in a different phrase than the RC-head), then an explanation for the "anti-agreement effects" would need to be devised for Sakha-type RCs that is completely independent from the explanation for Turkish-type RCs, clearly missing a generalization that holds across these languages.

The following examples illustrate subject RCs in Sakha, showing the lack of agreement morphology with the subject, thus contrasting with non-subject RCs:

(14) [**e**_i üüt ih -iex-teex] ït_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, not 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:

(15) [ĩt **e**_i ih -iex-teex] üüt_i -**e** dog(NOM) drink-FUT -MOD milk -**3.**sG 'The milk which the dog should drink'

In (14), 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 our principle in (5), i.e. our generalized binding principle against locally bound resumptive pronouns.

This last pair of examples also illustrates yet another piece of support for my analysis denying CP-status to the modifier clause in Sakha RCs. Note that the predicates of the embedded clauses are identical, even though (14) is a subject RC, and (15) 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.

For Turkish RCs, I have attributed the asymmetry with respect to predicate shape to a complementizer—subject agreement (CA) effect. CA is not a universal; it is possible that Sakha has simply made the parametric choice of not having CA, while Turkish has made the choice to have it.

While possible, this avenue of describing one difference between Turkish and Sakha RCs is less satisfactory than an explanatory account which would predict that Sakha RCs cannot possibly have CA effects, and if such an account found independent support.

I believe that such an account is possible within the approach I have suggested here, namely in conjunction with the proposal I made about modifying clauses in Sakha RCs not being CPs. If a clause is not a CP, it has no position for C, nor for Spec,CP, and thus will not be able to exhibit CA-effects. The pair in (14) and (15), representative for their respective kinds, illustrates clearly that no CA-effects are shown in Sakha RCs at all.⁸ Therefore, this fact provides independent evidence for my analysis for a reduced structure of the modifying clause in Sakha RCs.

3. 6. Similar but different: Modern Uighur

(16)[sïn -ï e i zdä -ydi•an]ad•mi -ï köč -üp kät-ti you -GEN search for -FUT man,person-2.SG move-Conv Aux-PAST 'The person whom you will look for has moved away/left' (Abdurishid Yakup, p.c.)

Just as in Sakha, the agreement element that agrees in phi-features with the subject of the modifier clause is on the RC-head, rather than on the predicate of the clause.

⁸ Not all subject versus non-subject RCs in Sakha are that clear-cut; it is possible to have different predicate forms. However, those differences are due to differences in mood and aspect—the relevant morphology is very rich, as I mentioned earlier. No distinctions are determined by the target of the RCs in Sakha and in languages with similar RC systems.

Also as in Sakha, the predicate of the modifier clause does not change its shape according to the target of the RC, but only with respect to tense or aspect; in the following pair, the first example is a subject RC, and the second is a non-subject RC, and the shape of the predicate is the same, as long as the tense/aspect is the same:

(17) [**ei** ürümči -d• tur -ïd**ï**•**an**] sın_i -ın Ürümçi -LOC live-FUT/PRES sister-2.SG 'Your sister who lives in Ürümçi' (LeSourd 1989)

(18) $[(\min -i_{\bullet})$ e tut $-idi \cdot an$] at i_{i} -imI -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; thus, compare (18) with (19), which is a non-subject RC, as well, but where the predicate is in the past:

| (19)[min | -i● | al | -•an] | xotun | -um | dunya-da | bir |
|---|-----|------|---------------|--------------------------|-------|-----------|-----|
| I -(| GEN | take | -PAST/PERFECT | lady | -1.SG | world-LOC | one |
| 'The lady I married is unique in the world' | | | | (Abdurishid Yakup, p.c.) | | | |

Similarly to Sakha, Csató's Generalization holds in Uighur, i.e. subject RCs cannot display agreement with the subject on the RC-head, i.e. our principle in (5) against locally A'-bound resumptive *pro* holds—and, again, just as in Sakha, it holds independently of CA-effects, which do not hold (as just illustrated above):

| (20)[| e _i kel | | -gen] | kiši _i | | |
|-------|--------------------|----------|-------------------|---------------------|--|--|
| | | come | -PAST/PERFECT | person | | |
| | 'A/ | The pers | son who has come' | (Johanson 1998: 61) | | |

Because the genitive is alive and well in Uighur, we cannot find evidence against subject-to-"possessor" raising in non-subject RCs based on case differences, as we did in Sakha; this is because subjects in the (nominalized) modifier clause show up in the genitive case (rather than in the nominative, as they do in Sakha), and are thus similar in this respect to possessors, i.e. specifiers of possessive DPs. Given that the RC-head carries the subject-agreement element, the issue is whether the "agreeing" head is not in a (clearly local) agreement relationship with a (raised) subject in "possessor" position, rather than with the subject in-situ, still in its clause-internal position. Therefore, we need to look for different kinds of arguments against the subject-raising analysis.

First of all, we have to investigate whether the genitive on the subject is indeed dependent on the agreement morphology on the RC-head. The following examples illustrate that it is:

| (21)a. | [(sïn-ï ₀) | e i kör | - ïdï•an] ad•m _i | -ï• |
|--------|--------------|----------------|-------------------------------------|-------|
| | you -GEN | see | -FUT/PRES man | -2.SG |
| | 'The man you | ı will see' | (LeSourd 1989) | |

This non-subject RC has properties familiar by now: the subject of the modifier clause and the RC-head overtly agree, and, as is typical in Uighur, the subject is in the genitive.

It is interesting to note, however, that Uighur has a second type of non-subject RC—a type which, in some other Turkic languages, is the only type available; 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:

(21)b. [s•n ei kör -ïdï•an] ad•mi you see -FUT/PRES man 'The man you will see' (LeSourd 1989)

The two versions mean essentially the same; native speakers say that the version with the genitive subject has that subject as a topic, and that the subject is stressed in some sense. While it would be interesting to investigate the way in which the nominative case is licensed in the absence of overt agreement, and whether it is an instance of default case, this would take us too far afield. What is important for our purposes is to show that 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:

| (21)c. | *[sïn | -ï● | ei | kör | -ïdï•a | n] | ad∙m _i |
|---------|-----------|-----------|--------|--------|-----------|---------|-------------------|
| | you | -GEN | | see | -FUT | /PRES | man |
| Intende | d reading | : Same as | s in (| (41)a. | and b. (I | LeSourd | 1989) |

Given these two factors about overt agreement in Uighur non-subject RCs, i.e. the fact that overt agreement expresses the phi-features of the apparently non-local subject, and the fact that this overt agreement licenses the genitive case on this seemingly on-local subject, the issue of the subject's being raised to the specifier position of the higher DP, i.e. to possessor position, is indeed an important one.

Modern Uighur, too, offers support for an in-situ analysis of the embedded subject, against a raising analysis ; the evidence is of a different sort, based on word order:

(22) [[min -ï, •t• bar —ïdï•an] yer -im] enïgki nahayiti yïraq

I -GEN tomorrow arrive –FUT place -1.SG 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, EtE 'tomorrow', can freely scramble over the subject, as long as this is local scrambling, i.e. within the clause:

(23) [[•t• min -ï• bar —ïdï•an] yer -im] enïgki nahayiti yïraq tomorrow I-GEN arrive –FUT place -1.SG obviously very far Same meaning as (22) (Abdurishid Yakup, p.c.)

Similarly, the root adverb *enïgki* 'obviously' can freely move within the root clause:

(24) enïgki [[•t• min -ï• bar —ïdï•an] yer -im] nahayiti yïraq obviously tomorrow I -GEN arrive –FUT place -1.SG very far Same meaning as (22) and (23) (Abdurishid Yakup, p.c.) However, neither the genitive subject, nor the adverb of the embedded clause can raise into the root clause:

(25) *min -ï enïgki [[•t• bar —ïdï•an] yer -im] nahayiti yïraq -GEN obviously tomorrow arrive -FUT place -1.SG very far I Intended reading: Same as in (22) and (23) (Abdurishid Yakup, p.c.) enïgki [[min -ï, bar —ïdï•an] yer -im] nahayiti yïraq (26)* •t• tomorrow obviously I-GEN arrive -FUT place -1.SG very far Intended reading: Same as in (22) and (23) (Abdurishid Yakup, p.c.)

While the ill-formedness of these last two examples might be explained by referring to subjacency effects, i.e. 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. This is because 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 (25) 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, which would have been the source of the topicalization, after the putative raising of the subject.

Secondly, the well-formedness of (23), in conjunction with the preceding discussion, also argues against raising of the genitive subject to a higher Spec,DP position. Under the analysis given here, i.e. that the genitive subject is in-situ and has not risen, the grammaticality of (23) is just as expected; the adverb has locally scrambled to the left of the subject, and both the adverb and the subject are still within the modifier clause of the RC. But if we assume that the subject has 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 we also have to assume that the temporal adverb has risen to an even higher position than the subject (given that the adverb precedes the subject), presumably to some high topic position. But we have seen that adverbs can scramble only locally; hence, we conclude the adverb has scrambled to a clause-internal topic position; but if the adverb is within the clause, then the genitive subject is in-situ and has not undergone raising.

This, then, brings us back to the issue of the locality of the relationship between the genitive subject and the overt agreement on the RC-head. Both for the sake of phifeature AGREE, 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-head, as I have just argued, then it must be the case that the AGREE relationship in question is indeed local.

⁹ These examples were constructed along similar ones in LeSourd (1989). I preferred to use my own examples and to check them with Dr. Abdurishid Yakup, a native Uighur speaker and Turkologist.

I propose that the same approach already proposed for Sakha can succeed for Uighur, as well: the modifier clause is not a CP, but just a TP/AspP. Therefore, the subject and the RC-head are in the same (DP-)phase, and the relationship between the two is thus local. The fact that Csató's Generalization holds, as well as the lack of any CA-effects, are two pieces of evidence that support this proposal.

4. Conclusions

The overt *Agr* morphology, expressing the phi-features with a local subject, differs in its placement in non-subject RCs exhibited by Turkic languages, as we saw: In some languages such as Turkish, it has to be on the predicate which is a clause-mate of the subject, and in some others, such as Sakha and Modern Uighur, it has to be on the RC-head.

This typology correlates with another difference, also having to do with agreement, but of a different sort, as I claim: RCs in languages such as Turkish display a special predicate morphology for subject RCs, different from that seen in non-subject RCs or in embeddings in general. I attribute this to complementizer agreement effects, similar to the so-called *que*-to-*qui* conversion in French. RCs in languages such as Sakha and Modern Uighur do not display CA-effects.

Thus, placement of the overt Agr element that expresses the subject's phi-features correlates with CA-effects: RCs in languages with CA-effects display the Agr element on the predicate of the modifier clause; RCs in languages without CA-effects display the Agr element on the RC-head.

In both types of languages, there is a common RC-property (*pace* the difference in position) with respect to phi-feature *Agr*: It shows up obligatorily in non-subject RCs, but it is obligatorily absent in subject RCs. I attributed this common property to an A'-disjointness requirement, valid for all of these languages, but whose syntactic domain of application is slightly different, due to the different category status of the modifier clause in the RCs, and thus the different computation of locality, as explained in the conclusion below:

I conclude that the correlations between the two differences, as well as the common subject—non-subject asymmetry with respect to presence versus absence of phi-feature *Agr*, can be explained by one single parametric difference between these two types of Turkic languages: the modifier clause in the RC is a CP in Turkish-type languages, but it is not a CP, rather a smaller projection, such as a bare TP/AspP/MoodP in languages such as Sakha and Modern Uighur. All of the typological properties follow and are thus explained:

There cannot be CA-effects where there is no CP-projection; also, where there is no CPprojection, the subject and the RC-head are in a local relation with each other, as they are in Sakha and Modern Uighur—a relation which has to obey the A'-disjointness requirement, due to this locality. Where there is a CP, on the other hand, as in Turkish, there can be CA-effects; also, the CP delimits locality, *Agr* must be placed on the predicate; if it were on the RC-head instead, it would be non-local with respect to the subject of the modifier clause.

This approach, successful in deriving the relevant typological distinctions among Turkic languages with respect to their RCs, also shows that the RCs in one single language, namely Turkish, are best described, and their properties explained, when the differences between its subject- and non-subject RCs are handled independently from each other, in terms of CA (for the distinction in predicate shape) and the A'-Disjointness Requirement (for the difference in presence versus absence of overt phi-feature Agr).

Appendix

(1) [täfå -ni kel -ür] yol -ïn -da camel -GEN come -P road-3.SG.-LOC
'On the way on which the camel came/comes along' [habitual] (Rabγu:zi: 13; Schinkewitsch 1927) Khorezmian: Middle Turkic, after 13thC

However, it was possible to have a subject without overt marking even when local agreement was present:

- (2) [män bil -dük-**üm**] -ni siz bil -sä är-di -niz I know -P. -**1.SG**-ACC you know-COND be-PST-2.PL 'If you had known what I know'
- (3) yašulu-lar [[šeyle pis adam -lar-ï, gel-en] öy-ler-in] -i yüze çïkarmalïdïrlar old pers.-PL thus bad person-PL-GEN came-P house-PL-3.-ACC point out (Nec.) 'Elders must point out the houses which these bad people visited' (Frank 1995: 100) Turkmen (contemporary)

Mongolian:

(4) mini aw -sen mer-min my buy pasthorse-1.SG
'The horse I bought'(Dagur; Hale & Ning 1996: 36)

Possessive phrases similar to Turkic, in general: possessor bears genitive, head noun bears an agreement marker with the possessor (in person and number). But the agreement marker is probably a clitic rather than a genuine suffix; it follows the case marker, both in simple possessive phrases and in RCs that have agreement on the head (while in their Turkic counterparts, in both constructions, the case marker always follows agreement):

 (5) minij mori-d -oos -min' my horse-PL-ABL-1.SG
 'from my horses' (Standard Mongolian: Binnick 1979: 4)

(6) axa -da-šin elder brother-dat-2.sg
'to your elder brother' (Buriat: Poppe 1960: 43)

History of Turkish: Genitive optional on subject, even when local agreement present (cf. Khorezmian example above):

(7) sän išlä-düg- ün iš you do -FN -2.SG. deed
'The deed that you did'
(Süheyl-ü Nevbahar[14th C]; Banguoğlu 1938: 115): "Anatolian Turkish"

A new suffix enters to mark future tense (and irrealis); the subject agreement marker is on the head, rather than on the embedded predicate—cf, "Central Asian Turkic":

 (8) [[var -acaq] yer -ümüz] ïraq-raq -dur arrive-FutFN place-1.PL far-somewhat-is 'The place where we shall arrive is rather far'

(Marzuba:n-na:me[14th C]; Kleinmichel 1974: 315): "Anatolian Turkish"

The continuation of the sentence shows that the nominal agreement form on the head noun cannot be a possessive marker, but is indeed an agreement marker with the subject of the modifier clause. The next example, from a different document, makes the same point:

(9) [[gäl -äcäk] yer -üm] çünki ol-a qapucome-FutFN 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): "Anatolian Turkish"

References

- Aoun, Y. (1986). Generalized Binding, the syntax and Logical Form of Wh-interrogatives. Dordrecht: Foris.
- Aygen, G. (2006). Case and agreement in reduced versus full relative clauses in Turkic languages. In S. Yağcıoğlu & A. C. Değer (eds.) Advances in Turkish Linguistics. Izmir: Dokuz Eylül Yayınları, pp. 643-653.
- Banguoğlu, T. (1938) Altosmanische Sprachstudien zu Süheyl-ü Nevbahar. Doctoral dissertation, Breslau.
- Binnick, R. I. (1979) Modern Mongolian: A Transformational Syntax. Toronto: University of Toronto Press.
- Borer, H. (1984). Restrictive relatives in modern Hebrew. *Natural Language and Linguistic Theory* 2: 219-260.
- Carstens, V. (2003) Rethinking Complementizer Agreement: Agree with a Case-Checked Goal *Linguistic Inquiry* 34: 393-412.
- Chomsky, N. (1999). Derivation by phase. MIT Occasional Papers in Linguistics 18.
- Comrie, B. (1997). Turkic Languages and Linguistic Typology. Turkic Languages, I, 1:14-24.
- Comrie, B. (1998). Rethinking the Typology of Relative Clauses. Language Design 1, 59-86.
- Csató, É. (1996). A typological review of relative clause constructions in some Turkic languages. In B. Rona (ed.) Current Issues in Turkish Linguistics: Proceedings of the Fifth International Conference on Turkish Linguistics. Ankara: Hiti Yayınevi [copyright London: SOAS], pp. 28-32.
- Frank, A. J. (1955) *Turkmen Reader*. Kensington, Maryland: Dunwoody Press
- Göksel, A. (1997). Morphological asymmetries between Turkish and Yakut. In K. İmer & N. E. Uzun (eds.) Proceedings of the VIIIth International Conference on Turkish Linguistics. Ankara: Ankara University publications, pp. 69-76.
- Hale, K. (2002). On the Dagur Object Relative: Some Comparative Notes. Journal of East Asian Linguistics 11 (2), 109-122.
- Hale, K. & C. Ning. (1996). Raising in Dagur Relative Clauses. In B. Aghayani, K. Takeda, and S.-W. Tang (eds.) UCI Working Papers in Linguistics 1, pp. 35-38.
- Hankamer, J. & L. Knecht. (1976). The role of the subjec/non-subject distinction in determining the choice of relative clause participle in Turkish. In *Proceedings of NELS VI*, Montréal WPL 6, pp. 123-135.
- Jaeggli, O. (1984). Subject extraction and the null subject parameter. In *Proceedings of NELS 14*, pp. 132-153.
- Kleinmichel, S. (1974) "Beitrag zur Geschichte der Nomenverbindungen im Osmanisch-Türkischen (Izafet)". In Sprache, Geschichte und Kultur der altaischen Völker: Protokollband der XII. Tagung der Permanent International Altaistic Conference, 1969; G. Hazai & P. Zieme (eds.): Berlin: Akademie-Verlag; 307-316.
- Kornfilt, J. (1984) Case Marking, Agreement, and Empty Categories in Turkish. Doctoral dissertation, Harvard University.

Kornfilt, J. (1986). The Stuttering Prohibition and morpheme deletion in Turkish. In A. Aksu Koç & E. Erguvanlı-Taylan (eds.) *Proceedings of the Second International Conference in Turkish Linguistics*. Istanbul: University of the Bosporus Publications #400, pp. 59-83.

Kornfilt, J. (1988). A typology of morphological agreement and its syntactic consequences. In D. Brentari, G. Larson and L. MacLeod (eds.) *Papers from the parasession on agreement in grammatical theory*: 24-II. Chicago: Chicago Linguistic Society, pp. 117-134

- Kornfilt, J. (1991). Some current issues in Turkish syntax. In H. Boeschoten & L. Verhoeven (eds.) *Turkish Linguistics Today*. Leiden: Brill, pp. 60-92.
- Kornfilt, J. (2000). Local and long distance reflexives in Turkish. In P. Cole, G. Hermon and J. Huang (eds.) *Long Distance Reflexives*. San Diego: Academic Press, pp. 197-226.
- Kornfilt, J. (2003) a. Subject case in Turkish nominalized clauses. In U. Junghanns & L. Szucsich (eds.) Syntactic Structures and Morphological Information. Berlin: Mouton de Gruyter, pp. 129-215.
- Kornfilt, J. (2003) b. Unmasking the sentential subject constraint. In S. Özsoy, D. Akar, M. Nakipoğlu-Demiralp, E. Erguvanlı-Taylan & A. Aksu-Koç (eds.) *Studies in Turkish Linguistics*. Istanbul: Boğaziçi University Press, pp. 121-130.
- Kornfilt, J. (2006). Agreement: The (unique and local) syntactic and morphological licenser of subject Case. In J. Costa & M. C. Figueiredo Silva (eds.) *Studies on Agreement*. Amsterdam/Philadelphia: John Benjamins, pp. 141-171.
- Kornfilt, J. & N. Vinokurova. (2001). Transcriptions and notes of one field work session on Sakha. Ms., Syracuse University and Utrecht University.
- LeSourd, P. (1989). Transcriptions of four informant sessions on Modern Uighur. Ms., Indiana University.
- Meral, H. M. (2006). "Resumptive pronouns in Turkish." In S. Yağcıoğlu & A. C. Değer (eds.) Advances in Turkish Linguistics. Izmir: Dokuz Eylül Yayınları, pp. 223-233.
- Miyagawa, S. (Forthcoming). On the EPP. To appear in Richards, N. & M. McGinnis (eds.) *Proceedings* of the EPP/Phase Workshop. Cambridge, Mass.: MIT.
- Miyagawa, S. (2006). Genitive Subject in Japanese and Turkish. Paper presented at the Nominalization Workshop, Syracuse University, March 2006.

Miyagawa, S. (2001). The EPP, Scrambling, and Wh-in-situ. In Kenstowicz, M. (ed.) Ken Hale: A Life in Language. Cambridge, Mass.: MIT Press, pp. 293-338.

- Ouhalla, J. (1993). Subject-extraction, negation and the anti-agreement effect. *Natural Language and Linguistic Theory* 11: 477-518.
- Poppe, N. (1960). *Buriat Grammar*. Indiana University Publications; Uralic & Altaic Series, vol. 2; Bloomington, IN.

Stachowski, M. & A. Menz. (1998). Yakut. In L. Johanson & É. Csató (eds.) The Turkic Languages. London: Routledge, pp. 417-433.

Underhill, R. (1972). "Turkish participles." Linguistic Inquiry 3: 87-99.

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