GENITIVE SUBJECT LICENSING IN UYGHUR SUBORDINATE CLAUSES*

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1 Introduction

In this paper, we analyze embedded clauses in Uyghur, a Turkic language spoken in the Xinjiang Uyghur Autonomous Region of China. We argue that genitive case on the subjects of these clauses is licensed by agreement with a clause-external D head. We also argue that these clauses are full CPs. Putting these claims together, we show that Uyghur exhibits agreement and case-assignment over a CP boundary, a configuration that is inconsistent with Chomsky's (1998) Phase Impenetrability Condition (PIC). The Uyghur data thus support adopting the weaker version of the PIC proposed by Chomsky (2001). Consider the following examples of embedding in Uyghur.[1]

(1) Noun Complement:
[**men-ɨŋ** ket-ken-(liq)] heqiqet-**im** muhim
[**I-gen** leave-RAN-(LIQ)] fact-**1sg.poss** important
'The fact that I left is important.' (*Uyghur*)

(2) Verb complement:
Ötkür [**Ajgül-nuŋ** ket-ken-(lik)-**i**-ni] di-d-i
Ötkür [**Aygül-gen** leave-RAN-(LIQ)-**3.poss**-acc] say-past-3
'Ötkür said that Aygül left.' (*Uyghur*)

When the embedded clause is the complement of an overt noun, as in (1), possessor agreement is on the embedding noun. We will argue that the optional morpheme *-liq* in the above examples is a complementizer, and that examples like (1) thus display agreement across a CP boundary. In addition, we will argue that the clause in (2) is also embedded by a head noun, albeit a

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[1]The Uyghur data in this paper comes from the authors' fieldwork. Genitive subjects and the corresponding possessor agreement morphemes are bolded throughout, where relevant.

phonologically null one, so that the embedded clauses in (1) and (2) have essentially the same structure. The presence of null head nouns, as contrasted with direct nominalization, has been a point of debate in the Altaic literature, discussed since Lees (1965).

The rest of the paper is structured as follows. Section 2 provides background on D-licensing and C-licensing of genitive embedded subjects in Altaic, and the location of possessor agreement as a diagnostic for licensing type. Section 3 contains data showing that Uyghur is a D-licensing language. Section 4 demonstrates that Uyghur embedded clauses with genitive subjects can be full CPs. Contra Kornfilt (2008) and Miyagawa (2008, to appear), we thus argue that D-licensing does not always correspond to a reduced embedded clause. Section 5 presents our proposal that genitive subjects in Uyghur are uniformly licensed by D, but phonologically null head nouns produce the appearance of clause-internal licensing. In section 6, we discuss the consequences of our data for the theory of phases. Section 7 concludes.

2 Background

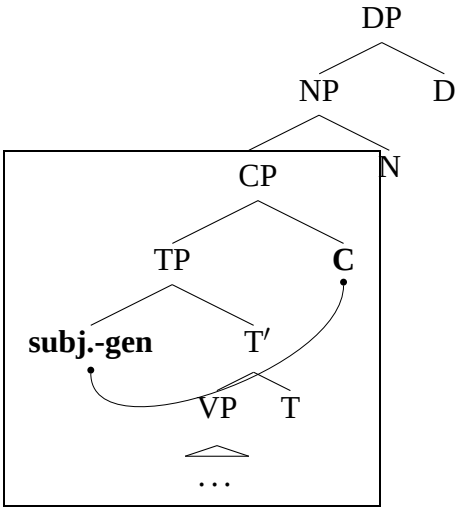
Two types of licensing have been proposed for embedded genitive subjects in Altaic. Subjects in some languages have been argued to be *C-licensed*, with genitive case assigned by a *clause-internal C head*. Subjects in other languages have been argued to be *D-licensed*, with genitive case assigned by a *clause-external D head*. The placement of possessor agreement with the genitive subject has been used as a diagnostic for C-licensing vs. D-licensing. In particular, Kornfilt (2008) argues that possessor agreement appears on the case-licensing element. Agreement on the verbal complex thus indicates C-licensing, whereas agreement on an external head noun indicates D-licensing. For instance, genitive embedded subjects in Turkish (example (3)) are C-licensed, whereas genitive embedded subjects in Dagur (example (4)) are D-licensed.

(3) *C-licensing:* agreement on the verbal complex in Turkish:
[**ben-im** al-dığ-**ım**] at iyi-dir
[**I-gen** buy-nliz-**1sg.poss**] horse good-is
'The horse I bought is good.' (*Turkish*) (Miyagawa (to appear): (3), citing J. Kornfilt (p.c.))

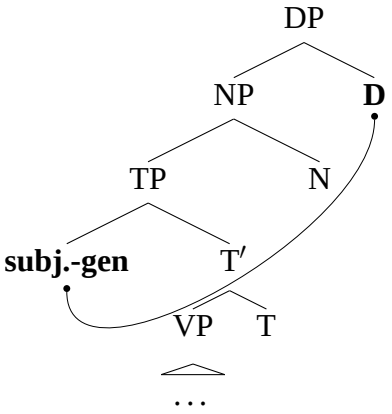
(4) *D-licensing:* agreement on the external head-noun in Dagur:
[**mini** au-sen] mer^{y}-**min**^{y} sain
[**I-gen** buy-perf] horse-**1sg.poss** good
'The horse I bought is good.' (*Dagur*) (Hale (2002): (1))

Furthermore, it has been proposed that variation in genitive licensing correlates with the size of the embedded clause (Kornfilt (2008), Miyagawa (2008, to appear), see also Hale (2002)). The idea is that C-licensing takes place when the embedded clause is a full CP, whereas D-licensing takes place when the embedded clause is reduced (TP/AspP). When the clause is a full CP, the CP boundary blocks agreement with an external D head.

(5) a. **C-licensing:**



b. **D-licensing:**



3 Uyghur: a D-licensing language

Applying the agreement-placement diagnostic of C-licensing vs. D-licensing to Uyghur, we find that Uyghur is a D-licensing language. Whenever an external noun is present, in relative clauses and noun complement clauses alike, possessor agreement with genitive subjects appears on the head noun. This is illustrated in example (6) for a relative clause and example (7) for a complement clause.

(6) Relative clause – agreement on N:
[**Ötkür-nuŋ** oqu-ʁan] kitav-**i** uzun
[**Ötkür-gen** read-RAN] book-**3.poss** long
'The book that Ötkür read is long.' (*Uyghur*)

(7) Noun complement – agreement on N:
[**Ötkür-nuŋ** tamaq ji-gen-(liq)] iʃaret-**i** muhim
[**Ötkür-gen** food eat-RAN-(LIQ)] sign-**3.poss** important
'The sign that Ötkür ate food is important.' (*Uyghur*)

There is no option of agreement on the embedded clause in the above examples, as shown in (8) and (9).

(8) Relative clause – no agreement on the verbal complex:
* [**Ötkür-nuŋ** oqu-ʁan-**i**] kitav-(i) uzun
[**Ötkür-gen** read-RAN-**3.poss**] book-(3.poss) long
intended: 'The book that Ötkür read is long.' (*Uyghur*)

(9) Noun complement – no agreement on the verbal complex:
* [**Ötkür-nuŋ** tamaq ji-gen-(liq)-**i**] iʃaret-(i) muhim
[**Ötkür-gen** food eat-RAN-(LIQ)-**3.poss**] sign-(3.poss) important
intended: 'The sign that Ötkür ate food is important.' (*Uyghur*)

Agreement placement in Uyghur contrasts with agreement placement in Turkish in these environments. Agreement is always on the verbal complex in Turkish, regardless of the type of embedding.

(10) Turkish relative clause – agreement on the verbal complex (= 3):
[**ben-im** al-dığ-**ım**] at iyi-dir
[**I-gen** buy-nliz-**1sg.poss**] horse good-is
'The horse I bought is good.' (*Turkish*) (Miyagawa (to appear): (3), citing J. Kornfilt (p.c.))

(11) Turkish noun complement – agreement on the verbal complex:
[**ben-im** aile-m-i terket-tiğ-**im**] söylenti-si
[**I-gen** family-1sg.poss-acc abandon-DIK-**1sg.poss**] rumor-cmpm
'the rumor that I abandoned my family' (*Turkish*) (Kornfilt (2003))

As Kornfilt (2008) argues, the patterns of agreement shown in this section indicate that Uyghur is a D-licensing language, whereas Turkish is a C-licensing language. Further evidence for D-licensing in Uyghur comes from the complementary distribution between genitive subjects and genitive possessors. Consider first that a single D head cannot assign genitive twice. As seen in (12), there would be nothing semantically anomalous about doubled possessors. However, (13) shows that two possessors are syntactically impossible: there is no way for both to be licensed by D.

(12) Two meanings for possessors:
Ajgül-nuŋ resim-**i**
Aygül-gen picture-**3.poss**
'picture that belongs to Aygül' *or*
'picture that depicts Aygül' (*Uyghur*)

(13) But no double possessors:
* **Ötkür-nuŋ** **Ajgül-nuŋ** resim-**i**
Ötkür-gen **Aygül-gen** picture-**3.poss**
intended: 'picture that depicts Aygül and belongs to Ötkür' (*Uyghur*)

We find the same effect with genitive-marked subjects: they are in complementary distribution with genitive-marked possessors. This contrasts with *unmarked* embedded subjects, which are compatible with possessors, as shown below:[2]

(14) Possessed head noun – RC subject must be unmarked:
a. [Ötkür oqu-ʁan] **Ajgül-nuŋ** kitav-**i** uzun
[Ötkür read-RAN] **Aygül-gen** book-**3.poss** long
'Aygül's book that Ötkür read is long.' (*Uyghur*)

b. * [**Ötkür-nuŋ** oqu-ʁan] **Ajgül-nuŋ** kitav-**i** uzun
[**Ötkür-gen** read-RAN] **Aygül-gen** book-**3.poss** long
intended: 'Aygül's book that Ötkür read is long.' (*Uyghur*)

[2]Unmarked subjects are generally in free variation with genitive-marked subjects in Uyghur relative clauses.

4 Uyghur: a CP-embedding language

In this section, we argue that Uyghur embedded clauses of the type discussed in this paper are CPs, and not TPs or AspPs. We do so by showing that the morpheme *-liq* found on these clauses is a complementizer. We also provide supporting evidence from the availability of CP-level adverbs and embedded wh-questions.

4.1 *-liq* is a complementizer

As seen above, *-liq* appears optionally at the right of the verbal complex, following *-ran* (an aspectual morpheme). This is illustrated again in (15).

(15) Optional *-liq* on noun complement (= 7):
[Ötkür-nuŋ tamaq ji-gen-**(liq)**] iʃaret-i muhim
[Ötkür-gen food eat-RAN-**(LIQ)**] sign-3.poss important
'The sign that Ötkür ate food is important.' (*Uyghur*)

We analyze *-liq* as a *complementizer* that introduces clausal complements to nouns. An alternative analysis, which has sometimes been assumed for related morphemes in other Turkic languages (see Gribanova (2010) for Uzbek), is that *-liq* is a *nominalizer* that attaches to the embedded clause. We show that *-liq* does not consistently host nominal morphology, and that it is optionally null. These properties are expected on the complementizer analysis, but are not straightforwardly consistent with the nominalizer analysis.

The distribution of nominal morphology identifies *-liq* as a complementizer, and not a nominalizer. Whenever a clause is embedded by an overt head noun, possessor agreement appears on this overt noun rather than on *-liq*, as seen in (15) above. Indeed, *-liq* cannot bear possessor agreement in complements to overt nouns, as shown in (16) below.

(16) No agreement on *-liq* (= 9):
* [**Ötkür-nuŋ** tamaq ji-gen-(liq)-**i**] iʃaret-(i) muhim
[**Ötkür-gen** food eat-RAN-(LIQ)-**3.poss**] sign-(3.poss) important
intended: 'The sign that Ötkür ate food is important.' (*Uyghur*)

Thus *-liq* does not create a category that hosts nominal morphology. This is straightforwardly expected on a complementizer analysis, but contradicts the nominalizer analysis.

Another property of *-liq* is its optionality. When *-liq* is available, it is generally optional (or optionally null), as the preceding examples have illustrated. Our consultant identified no difference in meaning in minimal pairs with and without *-liq*. This optionality is common for complementizers – many languages have null complementizers or allow complementizer-drop (see Stowell (1981), Boškovic and Lasnik (2003), Kishimoto (2006) for discussion). To our knowledge, there are no examples of systematic optionality for a piece of category-changing derivational morphology such as a nominalizer.

We thus analyze *-liq* as a complementizer that introduces clausal complements to nouns,[3] and conclude that Uyghur genitive subjects appear in full-CP embedded clauses. To account for the optionality of *-liq*, we assume that Uyghur also has a null complementizer.

[3] Uyghur has another complementizer, *dep*, which introduces true clausal complements to verbs, and embeds fully tensed TPs.

4.2 Corroborating evidence that Uyghur embedded clauses are CPs

We now argue that genitive-subject embedded clauses in Uyghur are full CPs based on the availability of CP-level adverbs and embedded interrogative clauses.

4.2.1 CP-level adverbs

Miyagawa (to appear) examines the Japanese *-ga*/*-no* paradigm, and argues for a D-licensing approach to genitive subjects in Japanese. He claims that embedded clauses with nominative (NOM) subjects are CPs, while embedded clauses with genitive (GEN) subjects are reduced (TPs). To support this claim, Miyagawa (to appear) observes that CP-level adverbs (e.g., 'evidently', 'truly', 'fortunately'; Cinque (1999)) are compatible with NOM-subject embedded clauses, but not with GEN-subject embedded clauses. We can extend Miyagawa's test to diagnose the size of embedded clauses in Turkish and Uyghur. For Turkish, a C-licensing language, the prediction is that CP level adverbs should be compatible with GEN-subject embedded clauses. This prediction is borne out.

(17) CP-level adverb with GEN subject:
[**anlaşılan** oğrenci-ler-**in** oku-duk-ları] kitap
[**evidently** student-pl-**gen** read-DIK-3.pl] book
'the book which the students evidently read' (*Turkish*) (Jaklin Kornfilt (p.c.))

Using Turkish and Japanese as controls, we can apply Miyagawa's test to Uyghur in order to diagnose the size of the embedded clause. If Uyghur GEN-subject embedded clauses are indeed full CPs, then Uyghur should pattern like Turkish and allow CP-level adverbs in these clauses. On the other hand, if Uyghur GEN-subject embedded clauses are reduced, then Uyghur should pattern like Japanese and disallow CP-level adverbs in these clauses. As illustrated in the examples below, Uyghur does indeed allow CP-level adverbs in GEN-subject embedded clauses.[4]

(18) CP-level adverb with GEN subject:
[**xeqiqi** Ajgül-**niŋ** jaz-ʁan] kitiv-i-ni korset!
[**truly** Aygül-**gen** write-RAN] book-3.poss-acc show
'Show (me) the book that Aygül truly wrote!' (*Uyghur*)

4.2.2 Embedded interrogatives

Finally, we note that genitive-subject embedded clauses can be interrogative. On the assumption that wh-interrogative clauses require a CP layer (see Stowell (1982)), examples of embedded questions like (19) provide additional evidence that Uyghur genitive-subject embedded clauses are full CPs.

(19) Embedded interrogative with genitive subject:
men [**Ötkür-nuŋ qatʃan** kel-idi-ʁan-(liq)-i-ni] bil-i-men
I [**Ötkür-gen when** come-impf-RAN-(LIQ)-3.poss-acc] know-impf-1sg
'I know when Ötkür will come.'

[4] It is difficult to find CP-level adverbials in Uyghur that are unambiguously adverbs, rather than parenthetical phrases, which have a freer distribution. Both *evidently* and *unfortunately* were rendered by our consultant as phrasal elements.

4.3 Summary

In this section, we have presented three strands of evidence that genitive-subject embedded clauses in Uyghur are full CPs. First, we showed that these clauses can host what by all appearances is an overt complementizer, *-liq*. Second, we showed that Miyagawa's (to appear) test for the size of the embedded clause reveals that Uyghur genitive-subject embedded clauses pattern as full CPs (as in Turkish), rather than as reduced TPs (as in Japanese). Third, we noted that Uyghur genitive-subject clauses can be wh-interrogatives, suggesting the presence of a CP layer.

5 Null nouns

When there is no overt embedding noun, as in verb complements, adjective complements, postposition complements, and sentential subjects, possessor agreement in Uyghur appears directly on the embedded clause. This pattern is illustrated in examples (20) through (23). We propose, however, that agreement that looks to be on the verbal complex in Uyghur is actually on a *null external head noun*. We thus maintain that Uyghur is a uniformly D-licensing language by Kornfilt's (2008) agreement placement diagnostic.

(20) Verb complement – agreement on the verbal complex:
Ötkür [**Ajgül-nuŋ** ket-ken-(lik)-**i**-ni] bil-i-du/di-d-i
Ötkür [**Aygül-gen** leave-RAN-(LIQ)-**3.poss**-acc] know-impf-3/say-past-3
'Ötkür knows/said that Aygül left.' (*Uyghur*)

(21) Adjective complement – agreement on the verbal complex:
men [**Tursun-niŋ** tamaq-ni yi-gin-**i**-din] χuʃal
I [**Tursun-gen** food-acc eat-RAN-**3.poss**-abl] happy
'I am happy that Tursun ate the food.' (*Uyghur*)

(22) Postposition complement – agreement on the verbal complex:
[**Tursun-niŋ** ket-ken-(lik)-**i**] utʃun, men tamaq ji-d-im
[**Tursun-gen** leave-RAN-(LIQ)-**3.poss**] because, I food eat-past-1sg
'Because Tursun left, I ate.' (*Uyghur*)

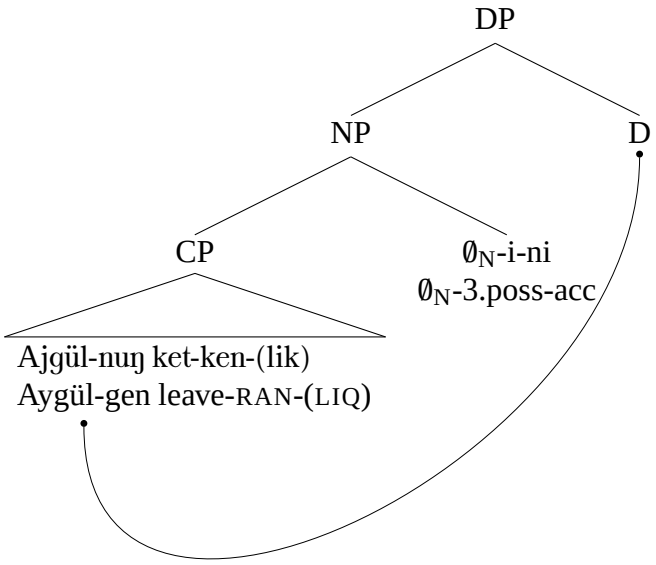
(23) Sentential subject – agreement on the verbal complex:
[**sen-iŋ** kel-gen-(liq)-**iŋ**] meni χuʃal kil-d-i
[**you-gen** come-RAN-(LIQ)-**2sg.poss**] I-acc happy do-past-3
'Your coming made me happy.' (*Uyghur*)

The idea that some subordinate clauses are embedded by null head nouns has been proposed before in the Altaic literature. (See Lees (1965), Aygen (2002) for Turkish; Maki and Uchibori (2008) for Japanese, but see also Kornfilt (1984, 2003) for arguments against this analysis for Turkish and Takahashi (2009) for arguments against this analysis for Japanese.) In this section, we argue that Uyghur subordinate clauses *are* embedded by null head nouns. This analysis is empirically motivated by similarities between null nouns and their overt counterparts. To illustrate, we propose that in (20) (repeated as (24) below), the embedded clause is a complement to a null head noun, which is then embedded by the verb. The null head noun is the real host of the

agreement and case morphemes that morphologically show up on the clause.[5] Uyghur embedded clauses of the type discussed in this paper are *always* embedded by nouns, either overt or covert.

(24) Verb complement – agreement on the verbal complex (= 20):
Ötkür [**Ajgül-nuŋ** ket-ken-(lik)-**i**-ni] bil-i-du/di-d-i
Ötkür [**Aygül-gen** leave-RAN-(LIQ)-**3.poss**-acc] know-impf-3/say-past-3
'Ötkür knows/said that Aygül left.' (*Uyghur*)

(25) Structure for the embedded clause in (24):



The proposed analysis has the major advantage of keeping the locus of possessor agreement and the licensing of genitive subjects uniform across all types of embedded clauses. Agreement with genitive subjects is always on an external head noun, and genitive case on these subjects is always licensed by D. In sections 5.1 and 5.2 we provide empirical support for our null head noun proposal. In particular, we show that null head nouns can be replaced by overt head nouns, that null nouns share idiosyncratic properties of their overt counterparts, and that clauses with null head nouns preserve an important difference between noun complements and relative clauses.

5.1 The overt head noun test

In the environments where we propose that a null head noun is present, it is always possible to make the null noun overt. We illustrate this for complement clauses to verbs.

(26) Null noun in complement to a verb:
Ötkür [**Tursun-niŋ** tamaq yi-gen] ∅N**-i**-ni bil-i-du/di-d-i
Ötkür [**Tursun-gen** food eat-RAN] ∅N**-3.poss**-acc know-impf-3/say-past-3
'Ötkür knows/said that Tursun ate food.' (*Uyghur*)

(27) Overt noun in complement to a verb:
Ötkür [**Tursun-niŋ** tamaq yi-gen] **heqiqet-i**-ni bil-i-du/di-d-i
Ötkür [**Tursun-gen** food eat-RAN] **fact-3.poss**-acc know-impf-3/say-past-3
'Ötkür knows/said the fact that Tursun ate food.' (*Uyghur*)

[5] We have no commitment to possessor agreement and case morphology appearing on N, as opposed to D.

Note in particular that the English counterpart of example (27) with *didi* ('said') is ungrammatical, as seen in (28). It is thus a non-trivial fact that an overt noun can be inserted in (27) in Uyghur. We have found no environments in Uyghur where an overt noun *cannot* be inserted.

(28) * Ötkür said the fact that Tursun ate food.

In this section, we saw that overt nouns can be inserted in the environments where we propose null nouns. In the next section, we further demonstrate that the proposed null nouns behave just like their overt counterparts.

5.2 Null nouns share properties of their overt counterparts

5.2.1 Idiosyncratic properties

Certain head nouns impose idiosyncratic restrictions on their embedded clauses. Genitive subjects of relative clauses are generally in free variation with unmarked subjects of relative clauses. However, unmarked subjects are strongly preferred in relative clauses headed by the overt noun *waqit* ('time'), as (29) shows.

(29) Restriction against genitive subjects with *waqit* ('time'):
[sen-**(*ɨŋ)** ket-ken] waqit-(*ɨŋ)-dɨn kijin, men tamaq ji-d-im
[you-**(*gen)** leave-RAN] time-(*2sg.poss)-abl after, I food eat-past-1sg
'After the time when you left, I ate.' (*Uyghur*)

The null noun counterpart of *waqit* ('time') imposes the same restriction, as shown in (30).

(30) Restriction against genitive subjects with the null variant of *waqit* ('time'):
[sen-**(*ɨŋ)** ket-ken-(*ɨŋ)-dɨn] kijin, men tamaq ji-d-im
[you-**(*gen)** leave-RAN-(*2sg.poss)-abl] after, I food eat-past-1sg
'After you left, I ate.' (*Uyghur*)

If there is no null noun in (30), the ungrammaticality of the genitive-subject variant is unrelated to the ungrammaticality of the genitive subject in (29). On the other hand, if a null equivalent of *waqit* ('time') is present, the ungrammaticality of the genitive subject in (30) is the same phenomenon as the ungrammaticality of the genitive subject in (29). This is a highly desirable consequence of the null noun analysis.

5.2.2 Noun complements vs. relative clauses

The complementizer *-liq* is optionally present in noun complements, but is incompatible with relative clauses.[6]

(31) *-liq* possible in a noun complement clause:
[Tursun-nɨŋ ket-ken-**(liq)**] heqiqet-i utʃun, men tamaq ji-d-im
[Tursun-gen leave-RAN-**(LIQ)**] fact-3sg because, I food eat-past-1sg
'Because of the fact that Tursun left, I ate.' (*Uyghur*)

[6] It is crosslinguistically common to observe different complementizer possibilities for different types of embedded clauses (see, e.g., Hiraiwa (2000) for Japanese *to* vs. ∅, and Richards (1999) for Tagalog and English). We assume that relative clauses in Uyghur are embedded by a null complementizer.

(32) No *-liq* in a relative clause:
[sen ket-ken-**(*liq)**] waqit-dɨn kijin, men tamaq ji-d-im
[you leave-RAN-**(*LIQ)**] time-abl after, I food eat-past-1sg
'After the time when you left, I ate.' (*Uyghur*)

We also find that *-liq* is allowed in embedding by some postpositions and not others, as (33) and (34) illustrate.

(33) *-liq* possible:
[Tursun-nɨŋ ket-ken-**(lik)**-i] utʃun, men tamaq ji-d-im
[Tursun-gen leave-RAN-**(LIQ)**-3] because, I food eat-past-1sg
'Because Tursun left, I ate.' (*Uyghur*)

(34) No *-liq*:
[sen ket-ken-**(*liq)**-dɨn] kijin, men tamaq ji-d-im
[you leave-RAN-**(*LIQ)**-abl] after, I food eat-past-1sg
'After you left, I ate.' (*Uyghur*)

The contrast between (33) and (34) is not an idiosyncratic property of different postpositions. Rather, *-liq* is prohibited precisely in those contexts where the noun phrase that combines with the postposition contains a relative clause rather than a clausal complement. Given our proposal that the clauses in (33) and (34) are embedded by null nouns, the contrast between (33) and (34) is exactly the same as the contrast between (31) and (32). In (33), the null noun embeds a complement clause, and *-liq* is therefore permitted. In (34), the null noun takes a relative clause, and *-liq* is banned. Without the null noun proposal, the contrast between (33) and (34) would remain mysterious.[7] We have thus argued that possessor agreement with Uyghur genitive subjects is uniformly hosted by head nouns, even in examples like (35), where no overt noun is present.

(35) Null noun in complement to a verb (= 26):
Ötkür [**Tursun-nɨŋ** tamaq yi-gen] $\emptyset_N$**-i**-ni bil-i-du/di-d-i
Ötkür [**Tursun-gen** food eat-RAN] $\emptyset_N$-**3.poss**-acc know-impf-3/say-past-3
'Ötkür knows/said that Tursun ate food.' (*Uyghur*)

Examples like (35) give the appearance of C-licensing by Kornfilt's (2008) test, but we have now shown that this is an illusion. Uyghur is thus a uniformly D-licensing language.

6 Implications of the analysis

We have argued that the licensing configuration for Uyghur genitive subjects involves Agreement with D^0 across C^0. In this section, we discuss the theoretical implications of this configuration

[7] An alternative hypothesis, suggested to us by Marcel den Dikken, is that *-liq* is impossible in clauses that contain a *wh-* or time-operator at their edge. This hypothesis would account for the relative clause and the temporal postposition data discussed above. But it is falsified by examples like (19), repeated below, where an an embedded *wh*-question is compatible with *-liq*:

(i) *-liq* possible in embedded questions (= 19):
men [Ötkür-nuŋ qatʃan kel-idi-ʁan-(**liq**)-i-ni] bil-i-men
I [Ötkür-gen when come-impf-RAN-(**LIQ**)-3.poss-acc] know-impf-1sg
'I know when Ötkür will come.'

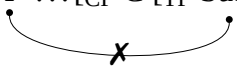
in the context of Chomsky's (1998) Phase Impenetrability Condition (PIC). We show that the configuration found in Uyghur is inconsistent with Chomsky's (1998) strong version of the PIC, and suggest that Chomsky's (2001) weaker version of the PIC should be adopted instead.

6.1 D-licensing across C: a challenge to the strong version of the Phase Impenetrability Condition

Recall that Kornfilt (2008) and Miyagawa (2008, in prep) propose that the licensing head for genitive subjects is determined by the size of the embedded clause. C-licensing occurs when the embedded clause is a full CP, while D-licensing occurs when the embedded clause is reduced (TP/AspP). Uyghur poses a challenge to this correlation. Uyghur is a D-licensing language, but the embedded clauses that house genitive subjects can be full CP, as evidenced by the availability of an overt complementizer (*-liq*), CP-level adverbs, and embedded wh-questions. Uyghur thus displays agreement and case-licensing across a CP boundary, a configuration that is surprising in light of an influential proposal about the locality of these operations—Chomsky's (1998) Phase Impenetrability Condition, given in (36).

(36) Chomsky's (1998) Phase Impenetrability Condition (PIC_{strong}):
In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

In the case of Uyghur genitive subject licensing, α = CP, H = C, and the domain of H = TP. The PIC_{strong} predicts licensing to be impossible in this configuration, as shown in (37).

(37) Predicted by PIC_{strong}:
$X^0 \ldots [_{CP}\ C\ [_{TP}\ Subj \ldots]]$


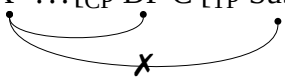
In the following subsections, we argue that the PIC_{strong} is indeed violated in Uyghur, and suggest that consequently a weaker formulation of the PIC should be adopted.[8]

6.2 Accessibility at the phase edge: not a solution for Uyghur

The first question that arises regarding the agreement/genitive case-assignment configuration in Uyghur is whether the violation of the PIC_{strong} is real or merely apparent. For several languages that show clause-external agreement patterns, it has been proposed that the DP agreed with is in fact at the *edge* of the embedded CP (Polinsky and Potsdam (2001) for Tsez, Branigan and MacKenzie (2002) for Innu-aimûn, Şener (2008) for Turkish). Under this configuration, the PIC is not actually violated, as illustrated in (38).

[8] One conceivable way to reconcile Uyghur with the PIC_{strong} would be to claim that *-liq* is an instance of "defective" C^0. In phase theory (Chomsky (2001) et seq.), *defectivity* encodes a property of phasal categories that renders them transparent to the operations of a higher head (e.g., defective *v* in passives and unaccusatives). Defective C^0, while not widely assumed, has been the subject of several recent proposals (Sabel (2006); Gallego (2007); Gallego and Uriagereka (2007); Fortuny (2008); Richards (2007, 2009); Wenger (2009)), often accompanied by conceptual motivations. Empirical evidence, however, has been scant. See Asarina (in prep.) for arguments against treating Uyghur *-liq* as defective C^0.

(38) $X^0 \ldots [_{CP}$ DP C $[_{TP}$ Subj $\ldots]]$



Uyghur genitive subjects do not appear to occupy a CP-edge position overtly. For example, they can be preceded in the clause by locative adverbial phrases, as shown in (39).

(39) Genitive subject preceded by locative:
[soʁun-da Mehemmet-niŋ oqu-ʁan] kitav-i uzun
[party-loc Mehemmet-gen read-RAN] book-3.poss long
'The book that Mehemmet read at the party is long.' (*Uyghur*)

However, it has been proposed that *topics* move to the edge of CP, sometimes covertly. Consequently, agreement with embedded topics can cross a CP boundary without violating the PIC_{strong}. If the embedded DP is not a topic, clause-external agreement or case-licensing is impossible. This pattern is illustrated for Turkish in (40) and (41). (See also Polinsky and Potsdam (2001) for a similar phenomenon in Tsez, and Branigan and MacKenzie (2002) for Innu-aimûn.)

(40) Turkish ECM:
Pelin [**Mete-yi** istakoz-dan ye-di diye] duy-muş.
Pelin-nom [**Mete-acc** lobster-abl eat-past C] hear-evid.past
'Pelin heard that Mete ate from the lobster.' (*Turkish*, Şener (2008): 49b)

(41) Turkish ECM – embedded subject is a topic and cannot be focused:
Pelin [yalnızca **Sinan-{∅/#ı}** git-ti diye] duy-muş.
Pelin [only **Sinan-{nom/#acc}** go-past C] hear-evid.past
'Pelin heard that only Sinan went (to the party).' (*Turkish*, Şener (2008): 48)

If Uyghur genitive subjects were moving covertly to the edge of CP, we might expect them to display the topichood restriction illustrated above. However, Uyghur genitive subjects need not be topics. As illustrated below, they may be focused, unlike the accusative-marked subject in (41).

(42) Non-topic genitive subjects:

a. [Ötkür-nuŋ-la kel-gen-lik] χever-i muhim
[Ötkür-gen-only come-RAN-LIQ] news-3.poss important
'The news that only Ötkür came is important.' (*Uyghur*)

b. [men-iŋ-la jaχʃi kör-gen] kitav-im uzun
[I-only well see-RAN] book-1sg.poss long
'The book that only I like is long.' (*Uyghur*)

c. Mehemmet [Ötkür-nuŋ-la kel-gen-lik-i-ni] didi
Mehemmet [Ötkür-gen-only come-RAN-LIQ-3.poss-acc] said
'Mehemmet said that only Ötkür came.' (*Uyghur*)

d. Q: Ötkür [Ajgül-niŋ kel-gen-lik-i-ni] didi-mu?
Ötkür [Ajgül-gen come-RAN-LIQ-3.poss-acc] said-Q
'Did Ötkür say that Aygül came?' (*Uyghur*)
A: Yaq, Ötkür [Mehemmet-niŋ kel-gen-lik-i-ni] didi.
no, Ötkür [Mehemmet-gen come-RAN-LIQ-3.poss-acc] said
'No, Ötkür said that Mehemmet came.' (*Uyghur*)

We conclude that there is no evidence to support the idea that Uyghur genitive subjects are at the edge of CP either overtly (which would result in word order effects) or covertly (which should yield discourse effects).

6.3 D-licensing across C: permitted by the weak version of the Phase Impenetrability Condition

In this section, we show that the weaker version of the PIC put forward by Chomsky (2001) (given in (43)) correctly predicts that agreement and case-licensing across a CP boundary should be permitted.

(43) Chomsky's (2001) Phase Impenetrability Condition (PIC_{weak}):
In phase α with head H, the domain of H is accessible to operations outside α only until the next (strong) phase head is merged.

For our purposes, this means that a *TP inside CP* is accessible until the next (strong) phase head is merged. Uyghur genitive subject licensing does not violate the PIC_{weak} on one of two assumptions, given in (44).

(44) a. D is not a phase head. (Richards (2006), Sabbagh (2007), Gallego (2009))
[$_{vP}$ … [$_{DP}$ D … **[**$_{CP}$ **C** [$_{TP}$ Subj …]]]]

b. A functional head below D (the phase head) licenses genitive. (proposed for independent reasons in Asarina (in prep.))
[$_{DP}$ … [$_{GenP}$ Gen … **[**$_{CP}$ **C** [$_{TP}$ Subj …]]]]

Once the PIC_{weak} is adopted, a new question arises: what blocks genitive case assignment across a CP boundary in Turkish? That is, why is Turkish not a D-licensing language? We propose that the differences in genitive subject licensing between Uyghur and Turkish can be reduced to a lexical property of C^0: Turkish C^0 assigns genitive case (Kornfilt (2008)), whereas Uyghur C^0 does not. We suggest that genitive case assignment by C^0 in Turkish, and not C^0 itself, blocks genitive case assignment by a higher head (such as D^0 or Gen^0). Note that genitive embedded subjects in Turkish are *not* in free variation with unmarked (i.e. nominative) ones (as seen in (45)), which is predicted given that C^0 is obligatorily a genitive case assigner. In Uyghur, we know independently that not every D^0 assigns genitive — a D^0 in a noun phrase lacking a possessor (or an embedded clause) has no target to assign case to. Since there is no genitive-assigning element obligatorily present, an unmarked subject is permitted in the Uyghur relative clause in (46).

(45) Relative clause subject must be genitive in Turkish:
[**Ali-*(nin)** pişir-diğ-i] yemek
[**Ali-*(gen)** cook-fn-3sg] food
'the food Ali cooked' (*Turkish*, Miyagawa (2008): 12b)

(46) Relative clause subject may be unmarked in Uyghur:
[**Ötkür** et-ken] tamaq temlik
[**Ötkür** cook-RAN] food tasty
'The food that Ötkür cooked is tasty.' (*Uyghur*)

7 Conclusions and consequences

This paper has analyzed the licensing of genitive embedded subjects in Uyghur. We have shown that genitive subjects are uniformly licensed by a clause-external D-head, and that this licensing can take place across an overt C^0 (*-liq*). Furthermore, we argued that genitive-subject clauses are always embedded by head nouns, although these head nouns can be phonologically null, creating the illusion of clause-internal licensing. We then discussed a particular theoretical consequence of these facts: Uyghur displays agreement and case-assignment across a C^0 head, a configuration that is inconsistent with the strong version of the Phase Impenetrability Condition proposed in Chomsky (1998), but consistent with weaker version suggested in Chomsky (2001).

Our analysis has consequences for the cross-linguistic variation in licensing of genitive embedded subjects in Altaic. Crucially, we have demonstrated that the difference between D-licensing and C-licensing is not reducible to a difference in the size of the embedded clause. It *is* reducible, we argued, to the lexical properties of phase heads—in particular, the case-licensing property of C^0. For C-licensing languages (Turkish), we agree with Kornfilt (2008) and Miyagawa (2008, to appear): a C^0 head (*-dik*) agrees with, and licenses genitive on, the embedded subject. But for at least one D-licensing language (Uyghur), we have proposed that the C^0 head (*-liq*) cannot agree with the embedded subject. The higher head D^0 probes across C^0 (in accordance with PIC_{weak}), agrees with the embedded subject, and licenses genitive case.

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