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Syntax and Semantics of Genitive Subject-Case in Turkic

This paper provides a unified account of genitive-subject case licensing   in subordinate contexts of Altaic languages.[1] Genitive-subject clauses, previously analyzed as a manifestation of Genitive/Nominative subject conversion phenomenon in the syntactic literature, are analyzed as exceptionally case marked subjects of clauses that lack the nominative-case licensing feature, similar to the well studied accusative-subject clauses that lack tense. Genitive is licensed by the *phi features* of a nominal functional category external to the clause in Turkish, as suggested for other languages (Miyagawa 1993, Krause 2001, among others). The difference between genitive and accusative case licensing is restricted to the nature of the functional category that licenses subject case, which is nominal in the former and verbal in the latter. The syntactic mechanism involved in case licensing is language and/or structure dependent. The major theoretical implications of the proposed analysis are the following: de-coupling of case-agreement and motivating covert movement as a syntactic process along with *Agree* and *Move*. Theoretically, phi features are accepted to be *uninterpretable* features on Tense head, which are involved in subject case licensing through motivating the movement of the subject DP to Spec TP. In previous literature on Turkish (Kornfilt 1984, 1987, 1988, 2002, 2003) and European Portuguese (Raposo 1987, 1989), agreement is accepted to be the licensing head or feature for genitive case on subjects in subordinate contexts and for nominative subjects in matrix clauses (Kornfilt 1987, 1989). This research maintains the

idea that agreement is involved in genitive subject case licensing but argues that clause external rather than clause internal agreement is the key to understanding the syntactic mechanism involved.

1.   Introduction

Recent accounts of genitive-case licensing discuss it within the context of the Nominative-Genitive Conversion (called *the GA/NO Conversion* since Harada 1971) that refers to the construction with a nominative-marked subject that alternates with the genitive-marked subject in relative clauses and nominal complements:

(1)   *Japanese*[2,3]

    a.   Kinoo   John-ga   katta   hon

          yesterday   John-NOM   buy-past-adn book

          'the book which John bought yesterday'

    b.   Kinoo   John-no   katta   hon

          yesterday   John-GEN   buy-past-adn book

          'the book which John bought yesterday'

    A similar observation is made in Turkish, where two constructions that seem to have the same surface form exhibit an alternation between a Nominative and a Genitive subject:

(2)   Nominative vs. Genitive Subject: [4,5]

    Ben-Ø [Ali-nin   cam-ı kır-dığ-ı   zaman]-ı bil-iyor-du-m.   (Turkish)

     I-nom   -GEN glass-acc break-asp[6]-agr$_N$ time-acc know-prog-past-1sg

    'I knew when Ali broke the glass.'

    [*S-GEN   Obj-acc   V-ASP-AGREEMENT Noun*] *acc… Complement Clause*

(3)   Ben-Ø [Ali-Ø   /*Ali-nin cam-ı   kır-dığ-ı   zaman] gerçeğ-i

    I-nom   -NOM/*   -GEN glass-acc break-asp-agr$_N$ time   truth-acc

    bil-iyor-du-m.

    know-prog-past-1sg

    'I knew the truth when Ali broke the glass.'

[*S-NOM/*GEN Obj-acc*   *V-ASP-AGREEMENT Noun*[7]]... *Adjunct Clause*

It is clear from (2) and (3) that the alternation is *not* optional: Nominative is not allowed in (2), and Genitive is not allowed in (3) where the subordinate clause is an adjunct[8]. The fact that the genitive subject construction in (2) is a complement has led to an account of the alternation in terms of the syntactic position of the clause (Kornfilt 2000, 2002, 2003). The observation that genitive case occurs in complement clauses and nominative in adjunct clauses is not accurate in that there are adjunct clauses with genitive subjects in Turkish. Therefore, I will present an alternative account, one that does not resort to the syntactic position of these clauses in terms of being selected or not selected. The alternation in subject case, I will argue, is due to different syntactic structures; this is in line with the claim in Kuno (1976), and the analyses in Miyagawa (1993) and Ochi (2001).

2.   Agreement as a case licenser

2.1.   Subject Case Licenser: the clause internal or the clause external agreement?

In previous work on the topic, it has been argued that genitive and nominative case on the subject is licensed by *phi features*, syntactic ingredients that correspond to the presence of subject-verb agreement. In this line of analysis the presence of nominal agreement licenses Genitive and verbal agreement licenses Nominative (Kornfilt 1984, 2002, George and Kornfilt 1981, Hwang 1997). This article will not question the role of agreement as a case licenser but will question the location of agreement features, i.e. phi features, that are responsible for genitive case. The arguments will be based on data from Turkic subordinate clauses, mainly from Turkish, Kazan Tatar, Tuvan and Kazakh. The crucial data refers to subordinate clauses that are identical in terms of verbal inflectional morphology yet different minimally in the case marking on the subject. We observe genitive case in complement clauses and in some instances of adjunct

clauses, and nominative case regularly on adjunct clauses. We will review the previous analysis within the presentation of relevant data and identify different types of clauses.

It has long been observed that both Subject-Nom and Subject-Gen clauses bear nominal agreement. Specifically, we will identify some Subject-Gen clauses in Turkic as sentential interrogative complements: syntactically, they are nominal complements modified by relative clauses, and (following Lees 1965 and subsequent work in Turkish linguistics, particularly, Kennely 1996). We will identify other Subject-Gen clauses as declarative sentential complements; syntactically, they are Complex NPs, i.e. complements of an optionally overt nominal head. We will argue that the null or lexical nominal head licenses Genitive case on the subject of Relative Clauses by the covert phrasal movement of the Genitive-subject to Spec DP. With regard to VP-adjunct clauses, we will argue that they are Complementizer Phrases (CPs) with lexically filled heads, with all the inflectional material required to license nominative case.

The observation that Turkish complement clauses might be RCs (Hankamer 1972) or CNPs in some instances is not a new one (cf. Lees 1965, Underhill 1972, Sezer 1991, Kennely 1996, Özsoy 1998, Kornfilt, 2002, among others). However, these structures have been analyzed by analogy to possessive phrases with phi features *internal to the clause* responsible for case licensing on the subject. Our analysis departs from this view in proposing different internal structures to these clauses independent of their external syntax, and accounting for case licensing independently of clause internal *phi features*.

Examples in (2) and (3) illustrate Turkish subordinate clauses that have *identical* surface form, except for the case on the subject. The example in (2) has a complement clause and its subject bears Genitive Case; the one in (3) has an adjunct clause and its subject bears Nominative

Case. The verbal predicate in both clauses is identical in form, and it bears the perfect aspect morpheme –DIK,[9] and the nominal agreement morpheme.

The structure in (2) is argued to be analogous to a Relative Clause in form in Hankamer (1972). I will present two pieces of evidence to argue that the structure in (2) is indeed a relative clause, not by analogy, but in terms of syntactic structure.

The first piece of evidence comes from a coordination test: (2) can be coordinated by other Relative Clauses as in (4):

(4)   *Coordination Test*

Ben-Ø [Ali-nin   git-ti-ği   zaman]ı   ve   Hasan-ın   bin-diğ-i   uçağ-ı

I-Nom   -GEN   go-DIK-agr$_N$ time-Acc and   -GEN   get on-DIK-agr$_N$ plane-acc

bil-iyor-du-m.

know-prog-past-1sg

'I knew the time when Ali went and the plane that Hasan got on'

The second piece of evidence comes from the nature of RCs. The RC in (5a) bears a gap and filling the gap yields to ungrammaticality (5b):

(5)   Relative Clauses bear gaps

    a.   Ben-Ø [Ali-nin   gör-düğ-ü   kedi]-yi   bil-iyor-du-m

           I-Nom   -Gen   see-DIK-agr$_N$ cat-Acc   know-prog-past-1sg

           'I knew the cat Ali saw '

    b.   *Ben-Ø [Ali-nin   köpeğ-i   gör-düğ-ü   kedi]yi   bil-iyor-du-m

           I-Nom   -Gen   dog-Acc   see-DIK-agr$_N$ cat-Acc   know-prog-

           past-1sg

           'I knew the dog the cat Ali ate '

It is evident that the structure in (2) (repeated here as (5a) is a RC with a gap too, since the attempt to fill the gap lexically renders the structure ungrammatical in (6), just like the RC in (5):

(6)   a.   Ben-Ø [Ali-nin   git-tiğ-i   zaman]ı   bil-iyor-du-m.

               I-Nom   -Gen   go-DIK-agr$_N$ time-Acc   know-prog-past-1sg

               'I know when Ali left.'

    b.   *Ben-Ø [Ali-nin   dün   git-tiğ-i   zaman]ı   bil-iyor-du-m. [10]

               I-Nom   -Gen   yesterday go-DIK-agr$_N$ time-Acc   know-prog-past-1sg

               '*I know when Ali left yesterday.'

The two tests above indicates (7):

(7)   *Interrogative subordinate clauses in Turkish are Relative Clauses*.[11]

Having identified the structure in (2) as a RC, we need the find out the structure of (3) and account for the difference on the subject case of the subordinate clause. Identification of the internal structure of (3) is crucially dependent on the nature of the word *zaman* 'time, when'. It is clearly a noun, the head noun of the Relative Clause in (2) and means 'time'. In (3), it is not a noun as clearly seen from its meaning, i.e. 'when'. Furthermore, the head noun time in (2) can be modified but not the 'when' in (3).

(2')   Ben-Ø [Ali-nin cam-ı   kır-dığ-ı   o   zaman]ı bil-iyor-du-m   (Turkish)

      I-nom Ali -GEN glass-acc break-perf-agr$_N$ that time-acc know-prog-past-1sg

      'I knew that time when Ali broke the glass'

      ….. [[S-GEN   Obj-acc   V-DIK-AGREEMENT] Noun]acc…….

(3')   *Ben-Ø [Ali-Ø cam-ı   kır-dığ-ı   o zaman] gerçeğ-i bil-iyor-du-m.

      I-nom Ali-NOM glass-acc break-DIK-agr$_N$ that time truth-acc know-prog-past-1sg

      'I knew the truth that time when Ali broke the glass'

      ….. [S-NOM Obj-acc   V-DIK-AGREEMENT   Comp]………

The argument that *zaman* 'when' is a Complementizer in Nominative-Subject constructions, and a head noun *zaman* 'time' in Genitive-Subject constructions is clearly attested in another Turkic language, Tuvan. Tuvan employs different lexical items for the noun 'time', *waqit* and the Comp 'when', *üye,* in sentences corresponding to (2) and (3) in Turkish:

(8)   Men- Ø [Ali-niN ket-ip   qal-gan] waqit-in-]ni   bil-ip ture-di-m   (Tuvan)

       I- NOM   -GEN go-conv aux-perf time-agr-acc   know-conv prog-past-1sg

       'I knew when Ali went'

       ….. [S-GEN   V-V-Perf]   Noun-agr]acc…….

(9)   Men- Ø[Ali- Ø   ket-ip qal-gan   üye-de] shin-ni bil-ip-türe-di-m   (Tuvan)

        I-NOM - NOM go-conv aux-perf time-adv truth-acc know-conv- prog-past-1sg

       'I knew truth when Ali got married'

       ….. [S-NOM   V-V-Perf   Comp] …….

Other adverbial constructions with Nominative subjects in Turkish, such as the one in

(10) below conform to this analysis. As clearly stated in Sezer (2002:27), the adverbial clitic –

(y)ken also has a free form and is predicted in my analysis to occupy the Complementizer

position. Being a lexical head, it can occupy C, the only syntactic position above T:

(10)   Jale- Ø   ev-e   gel-ir   iken, Hasan-ı   gör-dü.

       Jale -Nom house-Dat come-Aorist while   Hasan-Acc   see-Perf/Past

       'While Jale (was) coming home, (she) saw/has seen Hasan.

The tests and supportive evidence above allow us to posit (11):[12]

(11)   Nominative-subject subordinate clauses in Turkic languages are CPs.

Typical factive complement clauses in Turkish bear the same subject case and predicate

morphology as RCs. The next question I will address is if such complement clauses are Relative

Clauses in Turkish.

A typical factive complement clause in Turkish has a verbal predicate that is identical to

that of an object targeting RC in (2), i.e. (DIK +AGREEMENT) on the verb,[13] and Genitive case

on the subject.

(12)   *Relative Clause*

       Ben-Ø   [Hasan-ın   Jale-yi gör-düğ-ü   zaman]ı   bil-iyor-um

        I-Nom Hasan-GEN   Jale-acc see-DIK-agr$_N$ time-Acc   know-prog-1sg

'I knew the time when Hasan saw Jale'

(13)   *Complement Clause*

Ben- Ø Hasan-ın   Jale-yi gör-düğ-ün]ü   bil-iyor-um
I-Nom   Hasan -GEN Jale -acc see-DIK-agreement$_N$-Acc   know-prog-1sg
'I know that Hasan saw Jale'

These factive complement clauses, such as the one in (13), allow a head noun "the fact/the claim" to be inserted into the head position (Lees 1965, Sezer 1991, Kennely 1996, Özsoy 1998):

(14)   *Head Insertion Test*

Ben- Ø [Hasan-ın   Jale-yi   gör-düğ-ü]   gerçeği-ni / iddia-sı-nı
I-Nom   Hasan-GEN   Jale-acc   see-DIK-agr$_N$ fact-3agr-acc/claim-3agr-acc
bil-iyor-um
know-prog-1sg
'I know the fact/the claim that Hasan saw Jale'[14]

Furthermore, (13) allows objects in the subordinate clause indicating that there is no gap that would be expected in RCs. Based on these two pieces of evidence, we can confirm the insight in Lees (1965) and hypothesize the following:

(15)   Declarative subordinate clauses in Turkish are noun complements are Complex NPs.[15]

The evidence above suggest that the structure of interrogative complements is that of an RC (12a), and the structure of declarative complement clause is that of a noun complement (12b):

(16)   a.   *Relative Clause*

Ben-Ø [Hasan-ın   Jale-yi gör-düğ-ü   zaman]ı   bil-iyor-um
I-Nom   -GEN   -acc see-DIK-agr$_N$ time-Acc   know-prog-1sg
'I knew the time when Hasan saw Jale'
[$_{DP}$[$_{CP}$ Sbj-GEN   OBJ t$_i$ V+DIK+AGREEMENT$_n$] NP$_i$]

b.   *Complement Clause*

Ben- Ø Hasan-ın   Jale-yi gör-düğ-ün]ü   bil-iyor-um

I-Nom   Hasan -GEN Jale-acc see-DIK-agr-acc   know-prog-1sg

'I know that Hasan saw Jale'

[$_{DP}$[$_{CP}$ Sbj-GEN   OBJ   V+DIK+AGREEMENT$_n$] Ø]

To determine the source of genitive licensing, we need to ask whether the syntactic position of these clauses, i.e. whether their being selected as complements has anything to do with genitive licensing (as has been claimed in Kornfilt 2002). Are Complement Clauses (declarative and interrogative subordinate clauses of the two types above) the only environments where we may observe Genitive on the subject? The following subsection argues that the answer to this question is negative, and that neither the syntactic position of the clause nor the presence of an internal *phi feature* (Agreement) is responsible for genitive on the subject.

2.1.1. Genitive in Adjunct Clauses

Adjunct clauses in Turkic languages regularly bear Nominative subjects, a generalization made on Turkish by Underhill (1972) and Hankamer (1972, and subsequent work on Turkish). In data (18) below, however, we observe an adjunct clause with Genitive subject. Compare (17) and (18)[16] where the morphological form of the verbal predicates within the adjunct clauses is identical to that of RCs and CNPs; the case on the subject is different, and the adjuncts have different meanings.

(17)   [Hasan -Ø   duy-duğ-un-a   göre]   herkes   duy-acak.
        Hasan -NOM   hear-DIK-agreement$_N$-dat since   everybody   hear-fut
        'Given that/since Hasan heard, everybody will hear (it)'

(18)   [[Hasan-ın duy-duğ-u-na   göre]   herkes duy-acak-mış.
        Hasan -GEN   hear-DIK-agreement$_N$-Dat   according to   everbody   hear-fut-rep
        'According to what Hasan heard, everybody will hear (it)'

Generally *göre* 'since/according to' or 'because/because of' is analyzed as a postposition in both structures (Sezer 1994, Kornfilt 2002). If both subordinate clauses (-*DIK* clauses) in (17) and (18) are selected by the postposition, why do we not observe Genitive on the subject of (17) as predicted by analyses based on selection?

If our proposed analysis for the contrast between (2) and (3) above is correct, the examples in (17) and (18) can be accounted for by the difference in the internal structure of these clauses rather than their syntactic positions. Since both (17) and (18) are adjuncts and do not contrast in their syntactic positions (unlike the data in (2) and (3)), these structures would provide ground for our proposal.

The prediction of the proposed analysis is that the Gen-subject construction *does* allow insertion of a head noun but the Nom-subject construction *does not*. The prediction is borne out as shown in (19) and (20) below:

(19)　　*Nom-subject Adjunct*

　　　　*[CP[Hasan -Ø　duy-duğ-u] şey-e　　　göre]　　　　herkes　　　duy-acak-Ø.

　　　　Hasan -NOM　hear-DIK-agr_N thing-dat　since　　　　everybody　hear-fut3sg

(20)　　*Gen-subject Adjunct*

　　　　[PP [NP[Hasan-ın　duy-duğ-u]　　şey-e]　　göre]　　herkes　　　duy-acak-mış[17]

　　　　　　Hasan -GEN hear-DIK-agr_N thing-Dat　based on everbody　　hear-fut-rep

　　　　'Based on/according to what Hasan heard, everybody will hear (it).'

The Gen-subject adjunct allows a head noun *şey* 'thing' to be inserted, indicating that the outer layer is not a CP (20); whereas, the Nom-subject adjunct does not allow a noun in the head position (21).

Another test to distinguish the Nom vs. Gen subject adjuncts is the insertion of an object. A structure that allows object insertion would be a full clause, not a RC. An RC would be expected to have a gap in the object position. The Nom-subject adjunct in (17), being a CP, *is*

expected to allow an object while (18), being an RC[18] within a PP, *is not* expected to allow an object; the prediction is supported by the contrast in grammaticality in (21) and (22) below:

(21)   *Nom-subject Adjunct Clause*

   [[Hasan -Ø   haber-i   anla-dığ-ın-a   göre] herkes   anla-yacak.

    Hasan --NOM news-acc understand-DIK-agr$_N$-Dat since everybody understand-fut

   'Because Hasan understood the news everybody will.'

(22)   *Gen-subject Adjunct Clause*

   *[[Hasan-ın   haber-i   anla-dığ-ın]a   göre]   üç kişi   gel-ecek.

   Hasan -GEN news-acc understand-DIK-agr$_N$-Dat based on 3 person   come-fut

   '*Based on what Hasan understood the news, three people are going to come.'

The ungrammaticality of (22) is due to the attempt to fill the obligatory gap position in an RC, which is a Free Relative in this case. The empirical evidence above enables us to make the following claim:

(23)   *göre* 'based on, according to' is a postposition in (22) and selects a *null* nominal head but *göre* 'since' is a Complementizer in (21).

The internal structure of the two types of adjunct clauses discussed is given (24) and (25) below. Adjunct clauses with Genitive subject are free relatives with a null nominal head. This nominal clause is selected by a preposition, the head of the adjunct clause. Adjunct clauses with Nominative subject, on the other hand, are CPs where the head of the clause is a Complementizer. The preposition and the Complementizer in these two structures are homophonous:

   (24)   a.   *The structure of the adjunct clause with Genitive subject is a PP*, that selects a nominal head, with the structure below:
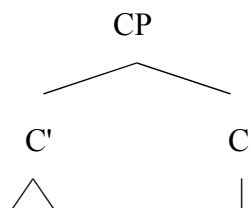
   b.   [$_{PP}$ [$_{NP}$ [S-Gen   V] Ø] Prep]

PP

NP   P

göre (based on)

CP   Ø-na (what/time/place)
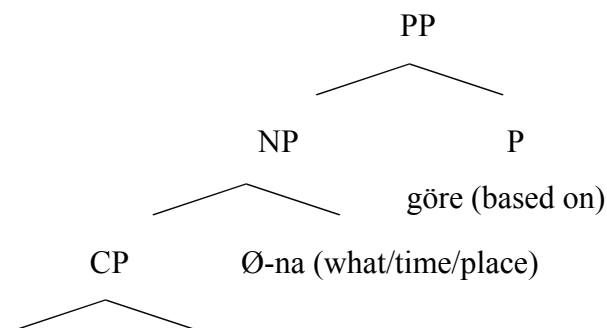
Hasan-ın _ anladığ (…Hasan understood)

(25)   a.   The structure of the adjunct clause with Nominative is a CP, with the structure below:

b. [$_{CP}$ S-Nom   V   Comp].

CP

C'   C

Hasan anladığ-ı-na   'göre/ since'

'Hasan understood'[19]

To conclude the discussion in this section, the internal structures of the subordinate clauses in Turkish identified so far are the following:

(26)   *The internal structure of the subordinate clauses in Turkish*

(i)   [$_{KP}$[$_{CP}$ Sbj-GEN   OBJ t_i V+DIK+AGREEMENT$_n$] NP$_i$]K]*RC -Comp of a Verb*

(ii)   [$_{NP}$[$_{CP}$ Sbj-GEN   OBJ   V+DIK+AGREEMENT$_n$] Ø]   *CNP-Comp of a Verb*

(iii)   [$_{PP}$ [$_{NP}$ [$_{CP}$ S-Gen   V] Ø]   Prep]   *RC-Comp of an Adjunct P*

(iv)   [$_{CP}$Sbj-NOM   OBJ   V+DIK+AGREEMENT$_n$ Comp]   *Adjunct CP*

As may be observed in the classification above, the presence of Genitive correlates with that of an external nominal head. The nominal head external to the clause is involved in Genitive licensing, not the clause internal agreement, because clause internal agreement occurs both with Nominative and Genitive subject constructions.

2.1.2. Turkish versus other Turkic languages and Dagur

Consideration of data from other Altaic languages provides evidence that Genitive on the subject of Relative Clauses is not marked by the *phi features* manifested by agreement within the structure but by the head noun.

Consider Kazakh (2K), Tuvan (2TV) and Dagur (27) below: Agreement morphology is on the Head Noun in these languages:[20]

(2K)   Kazakh

Men- Ø [Ali-nin   aynek-ti sindir-gan]   waqit-in]in bil-ip-jatre-di-m

I-Nom   -GEN glass-acc break-perf time-agr-acc know-conv-aux-past-1sg

'I knew when Ali broke the glass'

….. [[S-GEN Obj-acc   V-Perf]   Noun-agr]acc….…

(2TV) Tuvan (a Turkic language)

Men- Ø [Ali-niŋ   ket-ip   qal-gan   waqit-in-]ni bil-ip tur e-di-m

I- NOM   -GEN go-conv aux-perf time-agr-acc know-conv prog-past-1s p

'I knew when Ali went'

….. [[S-GEN V- aux-Perf] Noun-agreement]acc…….

(27)   Dagur (another Altaic language)   (Hale 2002:4b)

[[mini   au-sen]   biteg-*min*^y]   adig sain

 1sgGen buy-Perf book-1sg very good

'The book I bought is very good'

….. [[S-GEN   V-Perf]   Noun-agreement]acc…….

In Turkish, the occurrence of Agreement on the RC predicate is misleading in terms of attributing Genitive licensing properties to a clause internal feature, i.e. Agreement. In minimally different languages from the same language family, we observe that Agreement occurs on the head noun. This provides evidence to the claim that clause internal Agreement does not necessarily be the Genitive licenser *per se*; it can only be a morphological representation of the nominal head that licenses Genitive.[21]

In Dagur headless RCs, the agreement *min^y* on the head noun appears attached to the verbal complex just like in Turkish. The significance of this similarity is that the presence of agreement on the predicate does not indicate that it is the clause-internal agreement that licenses genitive on the clause. If we had restricted our observation on Dagur to the example in (28) below, we would be misled to assume agreement within the clause licenses genitive, whereas we know that the agreement shows up on the nominal head external to the clause in Dagur when the head is not null in examples such as (27):

(28) [mini oo-yig] - min^y ar^{y}g^y.[22]   (Hale 2002: data 10)
      1sgGen drink-Imperf-1sg   wine
       'What I drank is wine'

Agreement appears attached to the null or overt nominal head in Dagur, Kazakh and Tuvan; it appears attached to the verbal complex in Turkish.

To conclude, the clause internal nominal agreement *can* be an overt realization of the function of the head noun, and is clearly an indication of the nominal nature of the structure embedded under a head. However, it is not the actual licenser *per se* within the clause. Furthermore, in other (Altaic) languages (Dagur, Tuvan and Kazakh), where agreement appears on the head noun rather than the predicate, are all accounted for in an analysis of genitive licensing by a nominal feature, crucially *external* to the clause.[23]

2.1.3. Genitive and the Existential Complements

In this section, I will present another construction where we can test possible accounts of Genitive case licensing in Turkish: existential complement clauses. The predicate of the embedded version of (29) in (30) is identical to those observed in Nominative-Genitive constructions:

(29) Bahçe-de kedi-∅ var

     Garden-loc cat-NOM ex-subs

     'There is a cat in the garden'

(30) Hasan-∅ [bahçe-de kedi-∅ ol-duğ-un]u söyle-di.[24]

        -Nom garden-loc cat-NOM be-asp-agr_N-Acc tell-past

     'Hasan told that there is a cat in the garden'

Any approach that assumes that Genitive case universally by virtue of *phi features* internal to the clause predicts a genitive case in (30), which is not attested. Recall that Kornfilt (2002) presents an account for contrastive constructions such as (2) and (3) above where nominal Agreement and Nominative case co-occur by the following claim (following Raposo (1987) and adopting Pesetsky (1982): "Agreement can be licensed as a case marker either via co-indexation with an operator or via gamma-marking by a theta governor." To put it briefly, according to Kornfilt (2002), Genitive is licensed by Agreement that either occurs in a complement position or in a clause with an operator. The structure in (30) satisfies both of these conditions. It is an operator structure (existential operator) at a complement position. Kornfilt (2002) predicts genitive on the subject, however, case on the subject of (30) is not *Genitive*.

My proposed analysis following Miyagawa (1993) and Ochi (2001) however, accounts for the Nominative Case on the subject, and predicts the unavailability of inserting a head noun in constructions where the subject is in the Nominative. Consider (31), which shows the unavailability of a head noun in Nominative subject constructions (31a) and the availability of a head noun insertion in Genitive subject construction (31b): [25]

(31) a.*Hasan-∅ [bahçe-de kedi-∅ ol-duğ-u] haber/gerçeğ-in]i

      Hasan-Nom garden-loc cat-NOM be-asp-agreement news/fact -agreement-Acc

        söyle-di.

        tell-past

intended reading:

'Hasan told the news/fact that there is a cat in the garden'

b. Hasan-∅   [bahçe-de kedi-nin ol-duğ-u]   haber/gerçeğ-in]i sőyle-di.

   Hasan-NOM garden-loc cat-GEN be-asp-agreement news/fact-agreement-acc tell-past

'Hasan told that the cat is in the garden= it is the cat that is in the garden'

In (31b), the structure is not an existential, but a noun complement. The existential is lexical, just like the verb 'exist' in English, rather than the syntactic existential, i.e. [expletive + copula] 'there is' construction. The contrast in (31) is expected by an analysis where Genitive is licensed by an external nominal head.[26]

So far, we have argued that clause internal agreement is not a case licenser in Turkish, Tuvan, Kazakh, Kazan Tatar and Dagur. We have also accounted for the obligatory lack of a nominal layer out of existential complements, due to the definiteness/specificity effect of case on Turkish arguments. In the next section, we will discuss the syntactic mechanism involved in genitive case-licensing.

3. Covert phrasal movement vs. feature movement

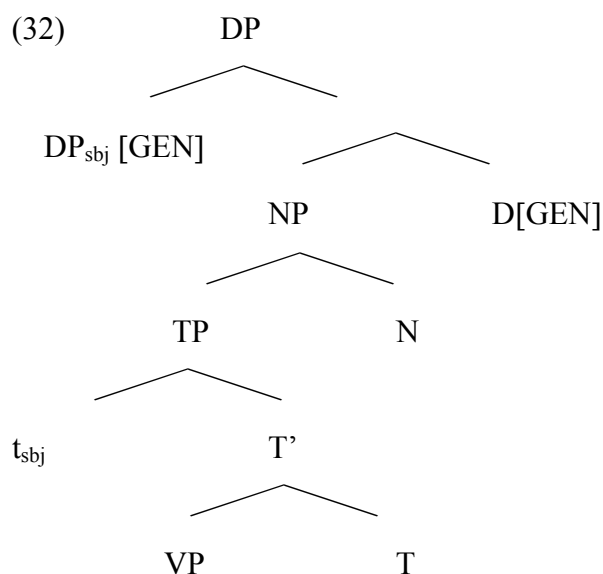3.1.   The syntactic mechanism involved in genitive case-licensing

A major analysis of genitive licensing is the raising analysis of Miyagawa (1993) that is based on an interpretational difference between the genitive and nominative subject constructions. Genitive is argued to be licensed by a covert phrasal movement of the subject to an external D in Miyagawa (1993) and by either feature movement or overt phrasal movement in Ochi (2001).[27]

I will argue that the raising analysis of Miyagawa (1993) is supported by facts from Turkish, Tuvan, Kazak, and Dagur, and that the syntactic mechanism that licenses Genitive in Turkish is the covert phrasal movement of the genitive phrase to Spec DP as in Miyagawa (1993).

3.1.1. The ECM/LF Raising Analysis (Miyagawa 1993, Ochi 2001)

Miyagawa (1993) argues that the Genitive case feature is checked by an external nominal head D at LF:

(32)

```
                     DP
              _____/_____
             /              \
   DPsbj [GEN]            ___/\___
                        /        \
                      NP        D[GEN]
                   ___/\___
                  /        \
                TP          N
            ___/\___
           /        \
         tsbj       T'
               ____/\____
              /          \
            VP            T
```

The crucial observation supporting this proposal is the availability of different interpretations and syntactic structures for GA/NO constructions. Miyagawa (1993) argues that structure with a Nominative subject has only the reading in which the head noun 'probability' takes scope over the Nominative subject 'ruby or pearl'. The one with the Genitive subject has the additional reading where the subject takes scope over 'probability':

(33)   [[[Rubii-ka shinju]-ga yasuku-naru]   kanousei]-ga   50% izyoo da.
        Ruby-or pearl-NOM   cheap-become probability-nom   over is
    i.   'The probability that rubies or pearls become cheap is over 50%'
    ii.   *'The probability that rubies become cheap or the probability that pearls
        become cheap is over 50 %.'
            Probability >[ruby or pearl]; *[ruby or pearl] > probability

(34)   [[[Rubii-ka shinju]-no yasuku-naru]   kanousei]-ga   50% izyoo da.
        Ruby-or pearl-GEN   cheap-become probability-nom   over is
    i.   'The probability that rubies or pearls become cheap is over 50%'
    ii.   'The probability that rubies become cheap or the probability that pearls
        become cheap is 50%.'

Probability >[ruby or pearl]; [ruby or pearl] > probability

According to Miyagawa (1993), the Nominative example in (33) is unambiguous because the Nominative subject is not raised out of the sentential clause, and is within the scope of the head noun. The Genitive clause, however, allows scope ambiguity because the Genitive subject raises into the Spec of DP at some point in the derivation. Miyagawa (1993) presents an argument showing that the movement takes place in covert syntax based on examples such as (35) and (36), in which other elements of the same sentential gapless clause occur to the left of the Genitive subject, yet, the ambiguity is retained:[28]

(35)   [Kotoshi rubii-ka shinju-no yasuku-naru]   kanousei

      this year ruby-or pearl-GEN cheap-become probability

      i.   'the probability that pearls become cheap this year'

   ii.   The probability that rubies become cheap this year or the probability that   pearls become cheap this year.

Probability > [ruby or pearl]; [ruby or pearl] > probability

      Modifiers like 'this year' must bear Genitive when they occur within a projection

of a noun:

(36)   a.   kotoshi-no   kougi

        this year-Gen lecture

    b.   *kotoshi   kougi

        this year   lecture

(35) and (36) show that 'this year' in (35) is inside the clause. The Genitive subject must also be within the sentential clause in overt syntax. Miyagawa (1993) argues that the Genitive subject must be pied-piped out of the sentential clause to the spec of DP in covert syntax.[29]

Ochi (2001) builds his analysis on the raising analysis of Miyagawa (1993) for GA/NO. His analysis is crucially different in terms of the nature of movement he assumes. He argues that non-ambiguity in structures like (33) above is due to the movement of formal features of the

genitive subject to Spec DP. Feature movement does not affect scope. On the other hand, the ambiguity of (34) results from the availability of overt phrasal movement; pied-piping of the Genitive subject to Spec DP for PF reasons and a new scope configuration is created.

Basic arguments in Ochi's (2001) analysis of the nature of movement in genitive subject constructions are the following. Ochi (2001) notes a structure where the intervening phrase is a Genitive one, taken from Miyagawa (1993):

(37)   [John –no [tenisu-ka sakkaa]-no dekiru] riyuu
         John-GEN tennis-or soccer-GEN can reason
    i.   'the reason that John can play tennis or soccer'
    ii.   'the reason that John can play tennis or the reason that John can play soccer'
    reason > [tennis or soccer]; [tennis or soccer] > reason

The ambiguity of (36) is accounted for by an optionality in the nature of raising (Ochi 2001):

(38)   [$_{DP}$ John-GEN$_i$ [$_{D'}$ tennis or soccer-GEN$_j$ [$_{NP}$ [$_{IP}$ t$_i$ t$_j$ can] reason] D]] (Overt raising)

(39)   [$_{DP}$ [$_{IP}$ [John-GEN] [tennis or soccer-GEN] can] reason]   (feature raising)
           └───────┘

      └────────────────┘
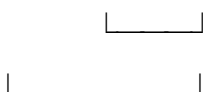
The structure in (38) is the product of an overt pied-piping movement: the movement of the Genitive subject [John-Gen] creates a new scope configuration. The structure in (39), however, shows a *feature* movement where no new scope configuration is created.[30]

I would like to note that optionality of overt pied-piping and the lack of an LF effect of feature movement is not the only possible account for the ambiguity of the structure in (37). There are two constituents that may get wide scope with respect to each other: the genitive phrase coordinated with a disjoint coordinator and the epistemic modal noun [probability]. If

overt phrasal movement is the only available syntactic mechanism that alters scope, then we would have to assume the following:

- The epistemic modal is interpreted at a position lower than the genitive phrase, since the genitive phrase is merged at a higher position than the modal noun. Either mechanism, i.e. feature movement or overt phrasal movement will allow the genitive phrase to have wider scope than the epistemic modal, and we would lose the argument for overt phrasal movement;

- The epistemic modal noun undergoes overt phrasal movement to have wider scope than the genitive phrase, in which case the genitive would be licensed by feature movement.

Ochi's (2001) analysis does not   provide any evidence for the higher scope of the noun 'reason' in (38) above. Following Ochi (2001), we would expect the following structures for the available interpretations of the clause in (38):

(40)   [$_{DP}$ John-GEN$_i$ [$_{D'}$ tennis or soccer-GEN$_j$ [$_{NP}$ [$_{IP}$ t$_i$ t$_j$ can] reason] D]] (Overt raising)

(41)   [$_{DP}$ [$_{IP}$ [John-GEN] [tennis or soccer-GEN] can] reason]   (feature raising)

I would like to argue that structures with a modal noun rather than one with a non-modal noun such as 'reason' provides a better testing ground for all the presented hypotheses. In the section below, I will provide evidence from Turkish Genitive case licensing in clausal structures to argue that *covert phrasal movement* is a necessary part of grammar, as proposed in Miyagawa (1993).[31]

In terms of the question whether the *phi features* within the clause or outside the clause are responsible for Genitive case licensing, the claim that Genitive is not licensed within the clause based on evidence from Turkic languages and Dagur finds support from the analysis of Japanese in both Miyagawa (1993) and Ochi (2001) despite the differences in the syntactic mechanisms they propose.[32]

3.2.   Genitive case licensing in Turkish: evidence for covert phrasal movement

In this section, I will discuss Genitive case licensing mechanism in Turkish, and provide arguments that support *covert phrasal moving* rather than *feature movement*.[33] Consider the Turkish data corresponding to Miyagawa's (1993) data in (35) above:

(42)   [[Pırlanta ya da inci]nin   ucuzlama]   ihtimal-i]   % sıfır[34,35].
        Diamond or pearl-GEN   get cheaper probability-3agreement   0%

    i.   'The probability that diamonds or pearls become cheap is 0%' (i.e. neither will become cheaper)

    ii.   'The probability that diamonds become cheap or the probability that pearls become cheap is 0%.' (i.e. either rubies or pearls won't become cheaper)

        Probability >[diamond or pearl]; [diamond or pearl] > probability[36]

The Genitive subject construction is ambiguous in terms of two patterns of the relative scope relation between the epistemic noun 'probability' and the Genitive subject, i.e. the logical disjunct within the Genitive subject. A corresponding Nominative subject construction (a root clause) is not ambiguous, as may be observed in (43) below:

(43)   [Pırlanta ya da inci]Ø   yüz   -de   sıfır   ihtimal-le   ucuzla   - yacak.
        Diamond or pearl-NOM hundred-loc zero probability-with become cheaper- will.
        'Diamonds or pearls will become cheap with the probability of zero %' (i.e. neither will become cheaper)
        Probability >[diamond or pearl]; *[diamond or pearl] > probability

There is an ambiguity in the Genitive subject construction, whereas, the Nominative subject construction does not allow the reading where the subject has wider scope and allows only inverse scope[37,38]. Note that in Japanese, the position of the Genitive subject is shown to be in overt syntax in structures with an adverb at the clause initial position, i.e. edge, position in Miyagawa (1993) (34). In (43) below, I adopt Miyagawa's (1993) test in Turkish:[39]

(44)   [Bugünlerde [pırlanta ya da inci]nin   ucuzlama]   ihtimal-i]   % 0.
       Nowadays   diamond or pearl-GEN   get cheaper probability-3agreement   0 %
       i.   'The probability that diamonds or pearls will become cheap nowadays is   0%' (i.e. neither will become cheaper)
       ii. 'The probability that diamonds will become cheap nowadays or the probability that pearls will become cheap nowadays is over 0 %. (i.e. either diamonds or pearls won't become cheaper)

       Probability >[diamond or pearl]; [diamond or pearl] > probability

The ambiguity is retained in Turkish unlike in Japanese despite the presence of an adverb preceding the genitive subject. It is crucial to note that the adverb is interpreted as part of the lower, not the higher clause, and as such, is located within the lower clause. Embedding this clause within a higher clause makes this fact clear:

(45)   Hasan [bugünlerde [pırlanta ya da inci]nin   ucuzlama]   ihtimal-i]nin
       Hasan nowadays diamond or pearl-GEN   get cheaper probability-3sg -Gen

       % 0 ol-duğ-u]nu   söyle-di.
       0 % be-Asp-3agreement$_N$-Acc tell-Past.

       'Hasan said that
       i.   'The probability that diamonds or pearls will become cheap nowadays is over 0%'. (i.e. neither will become cheaper)
       ii.   'The probability that diamond will become cheap nowadays or the probability that pearls will become cheap nowadays is over 0 %.' (i.e. either diamonds or pearls won't become cheaper)
       Probability >[diamond or pearl]; [diamond or pearl] > probability

I will analyze the ambiguity in (44) and (45)) by employing covert phrasal movement since feature movement does not affect scope (Ochi 2001). To account for the two readings in (44), we need two LF configurations, i.e. two syntactic structures. Covert phrasal movement is the only mechanism that allows scope difference. There are two possible accounts for the ambiguity. One is that the Genitive subject moves to Spec DP in both interpretations by covert phrasal movement and Genitive is licensed. What differs is the LF position of the epistemic noun that behaves as a quantifier. In line with Fox (1995, and specifically 2000), quantifiers move only locally when there is no other quantificational element to scope over for interpretational purposes. For the narrow scope reading of 'probability' the syntactic configuration with the wider scope of the two other scopal element Genitive subject with the disjoint 'or' and the quantificational adverb does not necessitate the 'probability' to raise non-locally. To yield the wide scope reading, however, 'probability' needs to move non-locally to a position; hence the ambiguity.[40]
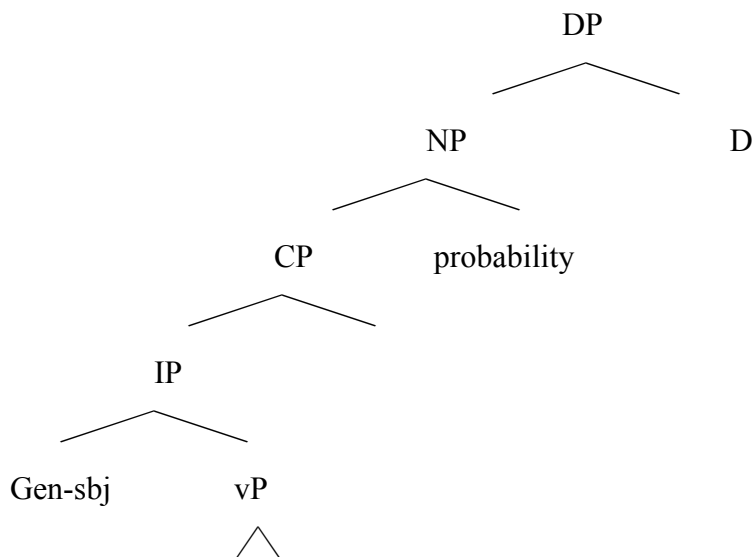
Another possible account is to adopt both feature movement and covert phrasal movement of the genitive subject. Feature movement would delete the *uninterpretable* case feature on D, and license Genitive and to yield narrow scope of the genitive subject; covert phrasal movement of the genitive subject, on the other hand, would yield a wide scope reading of the subject, assuming that the epistemic/quantificational noun 'probability' undergoes QR to a position lower than the DP.

I prefer the former to the latter on two grounds: First, we have a single syntactic mechanism to account for Genitive licensing, i.e. covert phrasal movement, in the former, whereas we employ two different syntactic mechanisms for Genitive licensing, i.e. both covert phrasal movement and feature movement in the latter.

Secondly, in either account, we need to propose a position for the epistemic/quantificational noun 'probability' to undergo QR as well. In the former account where we adopt *covert phrasal movement* of the genitive subject, 'probability' raises and adjoins to DP to get wide scope over the subject; also, it must move locally to allow the wider scope of the subject. In the latter account, the one where we adopt two mechanisms for Genitive case licensing, we need to propose the same two positions for 'probability' to undergo QR as well.

The position of the locally QR-ed 'probability' to allow a wide scope reading to the subject needs to be determined. Note that it is within a noun complement with the structure below in overt syntax:
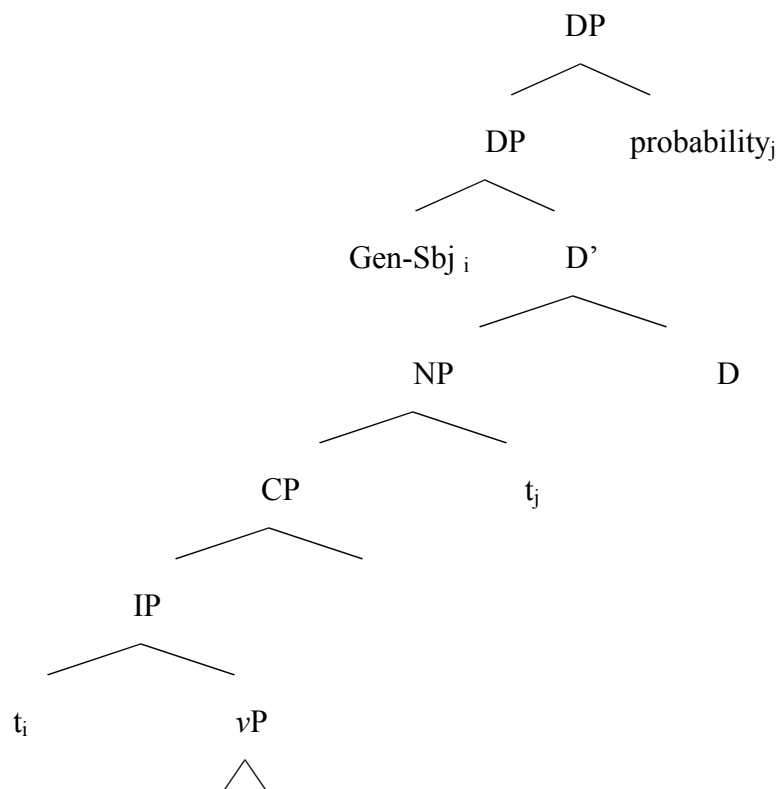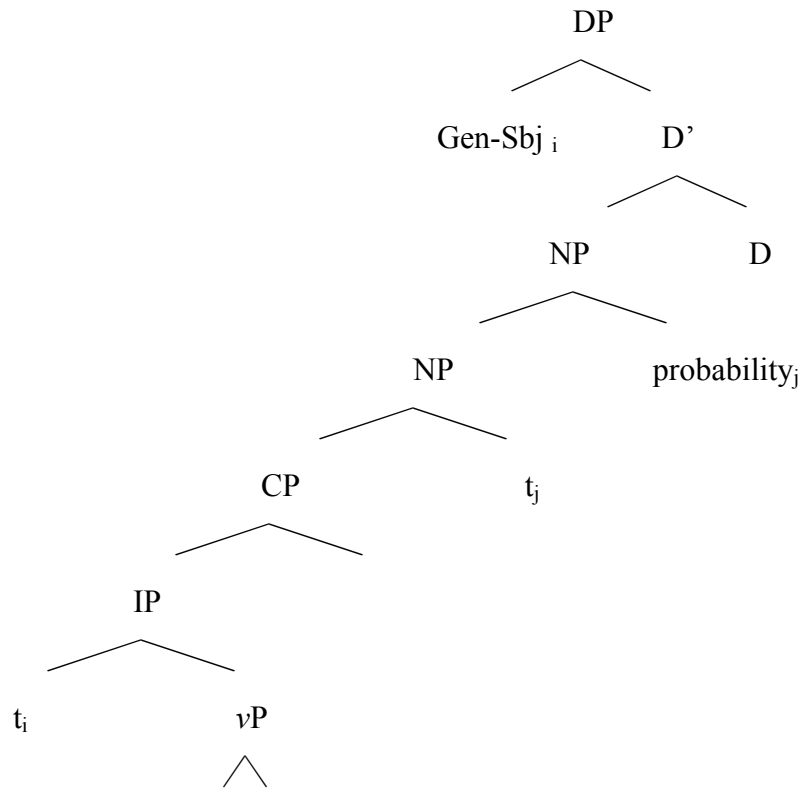
(46)   [DP [NP [CP S-Gen   IP] N] Det]

```
                        DP
                       /  \
                     NP     D
                    /  \
                  CP    probability
                 /  \
               IP
              /  \
          Gen-sbj  vP
                   /\
```

At LF, two available positions for QR of 'probability' is an adjunction to NP (47a) or DP (47b).

(47) a.

DP

DP probability_j

Gen-Sbj _i D'

NP D

CP t_j

IP

t_i vP

b.

DP

Gen-Sbj _i D'

NP D

NP probability_j

CP t_j

IP

t_i vP

There is no difference between the two accounts, i.e. the covert phrasal movement account and either a feature movement or a covert phrasal movement account of Genitive case-licensing in terms of the QR of 'probability'. We propose that a single mechanism for Genitive case licensing makes the former account simpler than the latter, and will employ covert phrasal movement as the genitive case-licensing mechanism in Turkish.

Therefore, the same mechanism can be employed to license Genitive case in structures like (4a) above. The difference in Japanese and Turkish boils down to the mechanism that licenses Genitive. Assuming that feature movement does not change scope relations, we are required to keep covert phrasal movement in our grammar.

3.3.   *Russian Genitive Subjects in Root Clauses: Genitive under Negation in root clauses*

The proposed analysis that Genitive subjects are licensed by an external nominal head is challenged by Russian Genitive subjects in matrix clauses. Genitive in Russian exhibits both GEN/NOM and GEN/ACC alternation in matrix clauses.[41] There are special semantics to this alternation that takes place only within negative structures. Following is the data from Pesetsky (1982):

(48)   *Russian subject GEN/NOM*   (data 55 of Pesetsky 1982)

    a.   ne pojavilis' studenty

        Neg showed up (pl) students (masc Nom pl)

        NEG showed up students-NOM = the students didn't show up

    b.   ne pojavilos'studentov

        Neg showed up (neut sg) students (masc Gen pl)

         NEG showed up students-GEN = no students showed up

(49)   *Russian object GEN/ACC*   (data 57 of Pesetsky 1982)

    a.   ja ne poluvučal pis'ma

        I   Neg received letters (neut Acc pl)

        I NEG received letters-ACC = I didn't receive the letters

b.   ja ne poluvučal pisem

I Neg received letters (neut gen pl)

I NEG received letters-GEN = I didn't receive any letters

As is clearly seen from the English gloss, the occurrence of Genitive under negation makes a difference in the interpretation. Pesetsky (1982) shows that in Russian, Genitive under Negation is a quantifier-variable construction and obligatorily undergoes Quantifier Raising, unlike a Nominative under Negation, which is an NP. In Russian, Genitive under Negation is obligatorily indefinite, and the quantifier is an existential one. In a recent work (Borschev and Partee 2002), it is noted that genitive under negative constructions occur in existentials that require indefinite subjects.

In Turkish, on the contrary, it has a specificity denoting property, as has been claimed for all instances of morphological case in Turkish in Aygen (1999/2007). It behaves as an indefinite only in generic contexts.[42]

To conclude, Genitive has specific properties in various syntactic and semantic contexts in Russian and Turkish. The ungrammaticality of Genitive subject in Turkish existentials and the grammaticality of Genitive subjects under Negation in Russian existentials correlate with the special semantics of genitive in these two languages. It is not correct that Genitive-Nominative conversion is not observed in matrix clauses (Hiraiwa 2001), as may be observed in Russian. Wherever such an alternation is observed, Genitive is not an optional choice but an obligatory case with a specific function, at least in Turkish and Russian.

4. CONCLUSION

I have argued that Genitive case on clausal subjects is licensed by phi features on an external nominal functional head. The major implication of the analysis is de-coupling clause internal agreement and subject case. I have further argued that the syntactic mechanism involved in

Genitive case licensing is covert phrasal movement of the Genitive argument to Spec DP. Incorporating covert phrasal movement as a syntactic process in our grammar may account for Turkic languages as well as Japanese. This analysis addresses the need for three syntactic operations in UG: Agree, Move, covert phrasal movement.

ACKNOWLEDGEMENTS

Endnotes

[1] We use the term Altaic to refer to languages that exhibit certain syntactic peculiarities. The languages under study are Turkish, Tuvan, Kazakh, Kazan Tatar, Japanese and Dagur.

[2] Data (1) is taken from Hiraiwa (2001). The inflection on the predicate is called an *adnominal* form.

[3] Abbreviations used in data: gen/GEN = genitive; nom/NOM = nominative, loc = locative; adn = adnominal; acc = accusative; agr$_N$ = nominal agreement; agr = agreement; prog = progressive; sg = singular; pl = plural; RC = Relative Clause; CNP = Complex Noun Phrase; rep=reportive.

[4] Mundy 1955, Haig 1998, Hankamer 1972, Sezer 1991, Öztürk 1999, Kornfilt 2000, 2002, 2003.

[5] Turkish orthography is used in the data: ı= [ɯ];ü = [y]; ö= [œ]; ğ =[Ø] ; ş= -[ʃ]; ç=[ʃt].

[6] The morpheme {–DIK} is regarded as a nominalizer and a factivity marker by most linguists (Lees 1965, and subsequent work on Turkish), although it is argued to be an inflectional morpheme by others: Kural (1993) defines it as Tense + Comp, Göksel (1997) analyzes it as a complex morpheme, Kennely (1996) as Aspect.

[7] In fact, I will argue that the word *zaman* 'time' is a complementizer in (3) despite its similarity in form to the noun in (2).

[8] In Japanese where the alternation between Nominative and Genitive is argued to be optional, Genitive subject seems to be favored by some speakers when the interpretation is that of a complement clause rather than an adjunct clause (Masao Ochi, p.c.).

[9] See footnote 7 for various analyses. Whatever analysis of the morpheme –DIK we adopt, we would expect a uniform case on the subject in (4&5) if either [T] or [Agr] were licensing case on the subject: however, this is not the case. We will assume that it is an aspect marker. Similar occurrences of an aspect marker in subordinate predicates are observed in Dagur and Mongolian. See section 3 for the discussion.

[10] This sentence has a grammatical reading when it is a RC: 'I know the exact time Ali left yesterday'. In this reading there is still a gap in the position of the exact time/hour.

[11] Krause (2001) analyzes RCs with Genitive subject as a type of reduced RCs cross-linguistically.

[12] The fact that Complementizers show no case even in languages such as German, Russian and Icelandic, where it could be expected to (Kayne 2000) follows from (6) being a CP in an adjunct position.

[13] The distinction between two types relativizing suffixes –DIK and –(y)AN, as strictly subject-targeting and object-targeting RCs has been discussed as early as the 70s (See Sezer 1972, 1991, Hankamer 1972, Hankamer and Knecht 1976, Knecht 1979, Underhill 1972, and subsequent work on Turkish, particularly Csato 1996 and Kornfilt 2000).

[14] The noun complements with a lexical or null nominal head are equivalent in terms of structure. Note that their syntactic distribution is not the same due to a definiteness restriction imposed on subjects (Erguvanli-Taylan 1984). The null head Noun complement can occur as a complement but not as a subject, as will be discussed later.

[15] Note that Lees (1965) analyzes these structures as (NP N) and Kennely (1996) as (IP N) where IP=Aspect, and Kornfilt (2001) argues for a KP, where K=Case; Kural (1993) analyses them as CP with a lexically filled Comp. See also Csató and Johanson.(1993).

[16] The observation of this contrast by Sezer 1994/96/98 is discussed in Ozturk 1999 as an argument for regarding Agreement as subject, and is accounted for by the lack of an operator co-indexed with the subject in nominative subject construction, in Kornfilt 2002. For a discussion on similar structures, see Brendemoen and Csató (1987).

[17] When the inserted head is *haber* 'news', the structure becomes a noun complement, not a free relative.

[18] The Relative Clause in (18) is in fact a free relative with a null head.

[19] Kornfilt (2002) analyzes these structures as both postpositional phrases, and accounts for the contrast in (2) and (3) and (17) and (18) by following Raposo (1987). Kornfilt (2001) argues that government of a clause by a predicate 'unlocks' the case assigning capacity of Agreement for genitive to be licensed. The Genitive-subject in complement clauses, such as the one in (2), is licensed by this mechanism. In adjunct

clauses agreement and an operator are both necessary in the structure; this is also the case with adjunct clauses that are not in a complement position. The contrast between (17) and (18) is due to the presence of an operator in (17) and lack of it in (18).

At this point either analysis, i.e. that of Kornfilt (2002) or the proposed analysis here can account for the data equally well. In the next section, I will present further arguments to argue that clause internal agreement is not a case licenser not only in Turkish, but in other Turkic languages as well, i.e. Kazakh and Tuvan, as well as another Altaic language, Dagur. I will also test both analyses on embedded existentials in Turkish.

[20] Same is reported for Kazan Tatar in Sahan (2002)

[21] One can develop a theoretical way to account for the agreement morphology on the head noun 'external' to the clause and still assume clause internal agreement as the licensor of genitive case. Some analysis in these lines has been suggested in Kornfilt (2005). However, the analysis presented here and the one in Kornfilt (2005)differ dramatically in two ways: Kornfilt (2005) assumes a different structure for these, one of a CP rather than a reduced clause. Secondly, it resorts to a complicated morphosyntactic process of [incorporation +excorporation] to get the agreement morphemes in the observed places, which in and of itself is theoretically very problematic for reasons stated in Matushanksy (2006) as well as Chomsky (2001). In terms of simplicity, the analysis proposed here is preferable since it predicts the presence of a clause external agreement.

[22] The corresponding Turkish sentence is ambiguous between a root clause with a headless relative and a relative clause. A similar ambiguity is not noted in Dagur (Hale 2002):

(i)   Ben-im iç-tiğ-im şarap
               I-gen   drink-DIK-1sg wine
      i.   What I drink is wine   [CP[I-gen   drink-rel-1sg] Ø] wine
      ii.   'the wine that I drink/drank'   [NP[I-gen drink-rel-1sg] wine]

[23] Note further that the analysis of the morpheme –DIK as an aspect morpheme in Turkish finds support from Dagur. In Dagur, the Perfective suffix is observed in root clauses as well as subordinate clauses:

(i)   [tere   yau-sen-ii]   ∫ii   uji-sen- ∫ii yee.   (Martin 1961:44 cited in Hale 2002)
         3sgNom go-Perf-acc   2sNom   see-Perf-2s Q
             'Did you see him leave?'

[24] See Nilsson (1991) for the data and a discussion on the pragmatics of Case.

[25] A native speaker of Turkish (Engin Sezer) does not agree with these grammaticality judgements and notes the availability of the following grammatical sentences :

(i)   Hasan [ev-de fare ol-duğ-u] söylenti-ler-i]ni yalan-la-dı.
                 House-loc mouse be-asp-3sg rumor-pl-3sg disclaim-past
               'Hasan disclaimed the rumors that there are mice in the house'
           in the non-generic reading

Note that the subject 'mouse' is interpreted as a generic noun, referring to a kind, not an individual. (31) is also grammatical in the generic reading, i.e. 'Hasan gave the news that there are cats in the garden'. The plurality of the subject noun in the gloss, despite the singularity in the actual data, reflects this generic property. Therefore, I agree with my informant in that the structure in (31) is grammatical in the generic reading of the subject but not in the non-generic, i.e. individual reading. The generic vs. non-generic reading of the subject NP clearly suggests a difference in the syntactic position of the subject NP in relevant structures. Consequently, the generic reading available in (31) and (i) above does not necessarily provide a counter-argument to the analysis proposed here. An analysis based on the incorporation of the noun to the verb in generic readings would account for the acceptable generic reading of (31) and (i). This syntactic context, i.e. generics within existentials, and the partial definite subjects with no genitive in subject relativized RCs discussed in footnote 10 above constitute the issue of non-

genitive RCs, Noun-Complements without Genitive subject that is accountable by the differences in the syntactic position of the licensee, i.e. the subject and the unique semantic requirements of the clause (generics). In both contexts two operators have to be present: existential and generic, or definiteness and relative operators. We are leaving syntactic interactions of multiple operators for further research.

[26] Lack of Genitive case in existentials is closely related to the topic of Case and Definiteness/Specificity. It is predicted by Milsark (1974) that definite arguments cannot be present in existentials. Consequently, we cannot expect a Genitive subject in Turkish existentials. The Genitive argument is interpreted as a definite/specific noun unlike the nominative one. The NOM in (31) is obligatory to mark the subject as indefinite because existentials do not allow definite NPs. The special semantics of Genitive is apparent in the Russian Genitive in Negation constructions. Interestingly, Genitive in Negation occurs specifically in Russian existentials because of its indefinite quantificational properties (Pesetsky 1982, Borschev and Partee 2002). See also Kuno 1071.

As predicted, Turkish referential NPs are not allowed to occur in existentials even with Nominative case; (i); they can occur with GEN in noun complements (ii):

(i)   *Hasan-∅ [bahçe-de Ayşe-∅   ol-duğ -un] u   sőyle-di.
          Hasan-Nom garden-loc   -NOM be-asp-agr-acc tell-past
          '*Hasan told that there is Ayşe in the garden'
(ii)   Hasan-∅ [bahçe-de Ayşe-nin ol-duğ-u]   (gerçeğ-in)]i sőyle-di.
          Hasan-Nom garden-loc   -GEN be-asp-agr$_N$ (fact-agr)-acc tell-past
          'Hasan told (the fact) that Ayşe is in the garden'

[27]   There are two more proposals, that of Watanabe (1996) based on an analogy to French Stylistic inversion and that of Hiraiwa (2001) based on V-to-T-to-C. V-T-C analysis. In the previous, NGC is limited to *wh*-agreement domains; as a manifestation of *wh*-agreement on T and Agrs, their *EPP*-feature is lifted and therefore the subject remains in *situ*, at Spec VP, taking a genitive marking as a disguised form of nominative case-marking. In the latter, the predicate amalgamate formed by V-T-C licenses Genitive case cross-linguistically and there is no external nominal head that licenses the Genitive. See Aygen (2002b, 2004) for a discussion on these approaches.

[28] In Miyagawa (1993), the structure in (34) is regarded to be ambiguous. Since most Japanese speakers disagree with this interpretation, Shigeru Miyagawa interprets this structure as unambiguous now and agrees with Ochi (2001). (See Miyagwa 2002, and further work). I will assume an unambiguous interpretation following Ochi (2001).

[29] In recent work, Miyagawa (2001) argues in favor of a V to C analysis where V at C licenses genitive case.

[30] Ochi (2001) proposes a hybrid theory of movement incorporating both *Move* and *Attract*. In his approach, feature movement is driven by the deficiency of the target (*Attract*), whereas pied-piping is motivated by the PF deficiency of the category that has moved (*Move*). In brief, the type of operation is determined by the type of deficiency: Once *Attract* removes the formal features of a category, the category is deficient for PF and moves in order to be pronounceable. This forces pied-piping to be successive-cyclic. On the other hand, *Attract* is a one-step process since it affects the closest feature.

[31] The need for covert phrasal movement is also supported by Pesetsky's (2000) arguments based on *wh*-movement.

[32] Watanabe (1994, 1996) argues that Genitive case-marking on the subject is a realization of *wh*-agreement (=French stylistic inversion).

[33] The availability of covert phrasal movement as a syntactic mechanism in various structures in Turkish is discussed in Akar 1990, Özsoy 1990c, Kural 1993, Kennely 1996.

[34] The order of the percent and zero is not a typo; it reflects the Turkish word order of partitive structures.

[35]   Having   0%   makes   the   ambiguity   clear   as   in the English data below :

(i)   John or Bill's possibility of coming is 0%. (=Either one won't come definitely)
(ii)   The possibility of John's or Bill's coming is 0%. (=Neither will come)
[36] A plural inflection on the head noun *ihtimalleri* 'the probabilities' disambiguates the structure in favor of (ii).
[37]When we test the ambiguity in a structure with a symmetric verb such as 'collide', the interpretation pattern does not change when a symmetric verb is present. For it to change there needs to be a conjunct 'and' rather than 'or':

(i)   [[Mustang ya da Porsche]nin   çarpışma]   ihtimal-i]   % 0
             Mustang   or   Porsche-GEN collide   probability-3agr 0%
    i.   'The probability that the Mustang or the Porsche collides is 0%' (i.e. neither will collide
             with some other car).
    ii.   'The probability that the Mustang collides or the probability that the Porsche collides is
             0%.' (i.e. either Mustang   or   Porsche won't collide with some car).
         Probability >[Mustang   or   Porsche]; [Mustang   or   Porsche] > probability

[38] A possible analysis for the unambiguity of (43) and the ambiguity of (42) might be based on the assumption that the head noun 'probability' is promoted from a lower position. Considering that (43) is a root clause, not a relative clause, whereas (42) is a complex NP where there is no gap within the clause from where the head noun could launch from.
[39] As will be discussed later, Ochi (2001) argues against covert phrasal movement, and suggests that this is an instance of feature movement. In fact, Miyagawa leaves this analysis for Japanese in his recent work (2001) and assumes Hiraiwa's (2001) proposal that V moves to C in Japanese GA/NO contexts, i.e. Complex NPs and Relative Clauses. In Miyagawa (2003), he falsifies Hiraiwa's (2001) argument for V raising to C in subjunctives but not in indicatives based on a structure where a higher adverb 'as far as I know' blocks partial-negation interpretation in Japanese, similar to an English structure discussed in Miyagawa (1993):

(i)   Everyone, as far as I know, didn't take the test. * not> every

[40]   Assuming Ochi (2001), we have only one covert mechanism, *feature* movement that does *not* affect scope relations. A recent proposal replaces *feature movement* with *Agree*. We can account for the ambiguity in Turkish and Japanese by assuming two covert operations: covert phrasal movement gives the wide scope of Genitive subject and feature movement gives the narrow scope reading. Since neither *feature movement* nor *Agree* alters scope relations, either operation would handle the narrow scope reading.
         Another possible analysis to account for the ambiguity requires altering two assumptions:
(i)   a. Feature movement is *not* replaceable by Agree; it is a process on its own right;
             b. Feature movement *does* affect scope
Suppose our assumptions include (a,b) above. We have two covert syntactic processes, feature movement and *Agree*. Note that *Agree* suggests non-movement, i.e. an intact phrase *in-situ*. Say we keep *Agree* that does not affect scope and an overt feature movement that does affect scope. We assume that *Agree* is in fact a feature matching- process with both the phrase and the feature in-situ. As such, *Agree* would be the opposite of both overt phrasal movement which is described as an instance where the feature and the material under the category label are inseparable (Pesetsky 2000). A non-movement version triggered by weak features is in fact *Agree*.
         Based on the assumption that overt feature movement does affect scope, we might argue that the Genitive subject in Japanese data (34) above is licensed by either *overt feature movement* that affects scope or *Agree* that does not affect scope yielding two interpretations for (i). Overt feature movement to the higher DP would be expected to yield the extra *possessive* reading to the subject John-Gen in Ochi

(2001)'s data for feature movement not effecting scope, following Szabolcsi's proposal that Possessive is licensed by DP; *Agree* (neither of which alters scope) would yield the interpretation where the subject John-Gen is restricted to the agentive reading. Only with the assumptions in (ii) can we exclude covert phrasal movement from our grammar to account for Turkish and Japanese facts. As for Japanese, lack of Possessive reading when there is an adverb at the edge of the clause would then have to be an *Agree* operation that does not yield scope alterations.

In brief, we have two options: we either include *covert phrasal movement* into our grammar along with *Move* and *feature movement/Agree* or we exclude covert phrasal movement and distinguish feature movement an Agree in that the former alters scope the latter doesn't.

If the latter approach is correct, we have two feature-based syntactic mechanisms in our grammar; one that involves a *movement* and the other *Agree*. At a phrasal level, we already have an overt movement, *Move*. The gap in the paradigm of possible syntactic mechanisms is the covert phrasal movement that the recent theory has excluded.

(ii)   *Syntactic Mechanisms & their PF/LF Effects*
a.   Based on the assumption that feature movement does not have an LF effect

	PF effect	LF effect
Phrasal Pied-piping	+/-	+
No Movement = Agree	-	

In table (iia), there are three possible syntactic mechanisms, one of which affects PF: phrasal movement has both an overt and a covert component and both affect LF. Feature movement/Agree effects neither PF nor LF. This approach brings us back to the original stage of two syntactic movements: overt and covert phrasal movement. The only difference is the assumption that no-movement, *Agree* is also a syntactic licensing mechanism.

b. Based on the assumption that feature movement has an LF effect

	PF effect	LF effect
Phrasal Pied-piping	+	+
Feature movement	-	+
No Movement= Agree	-	

In table (iib), there are four possible syntactic mechanisms: phrasal movement has an overt component only and as such affects PF and LF. Feature movement does not affect PF yet it affects LF. *Agree* is defined as feature matching between a feature on a functional head and a feature on a non-moved phrase. Therefore *Agree* is a no-movement operation involving neither feature nor phrase, and as such, naturally has no PF effect on either PF or LF. It is the default licensing mechanism for weak features. The operations that affect scope are all instances of movement. This approach to the nature of syntactic movement could allow us to account for Turkish and Japanese facts with the same grammar, yet different covert operations. It would also suggest that syntactic movement is not only languages-specific, but also construction specific.

The former, i.e. including covert phrasal movement (iia) is simpler than the latter; therefore, would be preferred.

[41] It is apparent that Genitive licensing proposed for subordinate contexts in this research cannot account for Genitive licensing in matrix clauses, since there cannot be an external nominal layer in root clauses. I believe the special semantics of Genitive subjects contribute to the topic and require further study. For the semantics of genitive case see Borschev and Partee (2002).

[42] See Aygen (2002c) and the references therein for the semantics of genitive case in Turkish.

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