

# Turkic genitive case and agreement asymmetries

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## 1 Introduction

Baker and Vinokurova (2010) (B&V) and Baker (2015) present a two-modality approach to case assignment, in which different cases may be assigned in one of two ways: either configurationally, as in Marantz (1991), where case is assigned depending on its location and its relationship with other nominals in its domain, or assigned via agreement with functional heads, as in Chomsky (2000). In particular, they argue that the agreement of nominative and genitive case cannot be assigned configurationally based on agreement patterns in Sakha, a Turkic language. They argue that genitive case assignment is parasitic on nominal agreement in Turkish and Sakha.

In the spirit of Levin and Preminger (2015), I argue that positing just one modality—Marantz (1991)'s approach to case assignment—is enough to account for Turkic. Levin & Preminger provide purely theoretical arguments in favor of their conclusion. In this paper, I provide four empirical arguments—which are *asymmetries* between genitive case assignment and nominal agreement—two of which are novel, for genitive case being assigned as an unmarked case not just in Sakha, but other Turkic languages as well. The two other observations which are not novel have not yet been used as arguments in favor of the configurational theory of case.

The first asymmetry I will present is based on the existence of the so-called *possessive-free genitives* (PFG) in Turkish, in which the head noun in a simple possessive structure (PS) such as ‘my cat’ lacks the possessive suffix, and therefore has no (at least overt) agreement, as seen in (1) below. As Öztürk and Taylan (2015) point out, this is not merely optional dropping of the possessive suffix; the PFG in (1b) is better analyzed as an adjunct rather than an argument:

- |     |    |                      |    |             |
|-----|----|----------------------|----|-------------|
| (1) | a. | Ben-im kedi-m        | b. | Ben-im kedi |
|     |    | 1SG-GEN cat-POSS.1SG |    | 1SG-GEN cat |
|     |    | ‘my cat’             |    | ‘my cat’    |

Another asymmetry I will discuss is the fact that in a few Turkic languages, the subject of a non-subject relative clause is morphologically unmarked (nominative) despite there being nominal agreement present. A non-subject relative clause (RC) is one in which something other than the subject is the target of relativization. I give examples from B&V in (2)-(3) below:

- |     |                                |          |                |
|-----|--------------------------------|----------|----------------|
| (2) | Julus aqa-ta                   | sie-bit  | at-a           |
|     | Julus father-POSS.3SG          | eat-PTPL | horse-POSS.3SG |
|     | ‘the horse Julus’s father ate’ |          |                |
| (3) | Julus aqa-tı-n                 | sie-bit  | at-a           |
|     | Julus father-POSS.3SG-GEN      | eat-PTPL | horse-POSS.3SG |
|     | ‘the horse Julus’s father ate’ |          |                |

I present novel data from Altai, in addition to already existing data from Sakha (as seen in (2)) and Uzbek, to show that nominative case can also be present with nominal agreement, contra B&V. Noting the five different kinds of Turkic RCs, I present a new analysis of these.

Another novel observation is the presence of morphologically unmarked pronouns (nominative) in Turkic partitive NPs, such as (*biz*) *iki-miz* ‘the two of us,’ where the pronoun is optional, but the nominal agreement in bold on the head numeral *iki* is not. Contrary to fact, agreement would assign genitive case to this pronoun inside the partitive NP under B&V’s approach. I argue that this can be accounted for if genitive case is assigned configurationally.

Finally, I introduce the problem of Turkic default agreement, which has received very little attention in the literature in the case of Turkish, and not discussed at all for other Turkic languages. In Turkic default agreement, complex possessors such as partitive NPs and adnominal pronoun constructions (APCs, ex. ‘we Turks’) agree fully in finite clauses with matrix verbs, but do not agree with head nouns in simple possessive structures, relative clauses and elsewhere; in other words, when they receive genitive case in Turkic. In these cases, full agreement, 1PL, is not permitted, and default agreement, 3SG is required, as in (4a)-(4d):

- |   |                |   |                   |
|---|----------------|---|-------------------|
| (4) a. (Biz) <i>iki-miz-in</i>          | <i>kedi-si</i> | c. * (Biz) <i>iki-miz-in</i>            | <i>kedi-miz</i>   |
| (1PL) two-POSS.1PL-GEN                  | cat-POSS.3SG   | (1PL) two-POSS.1PL-GEN                  | cat-POSS.1PL      |
| ‘the cat that belongs to the two of us’ |                | ‘the cat that belongs to the two of us’ |                   |
| b. <i>biz Türk-ler-in</i>               | <i>kitab-i</i> | d. * <i>biz Türk-ler-in</i>             | <i>kitab-imiz</i> |
| 1PL Turk-PL-GEN                         | book-POSS.3SG  | 1PL Turk-PL-GEN                         | book-POSS.1PL     |
| ‘the book that belongs to us Turks’     |                | ‘the book that belongs to us Turks’     |                   |

However, in all other Turkic languages, I present novel data to show that default agreement with complex possessors is merely optional, and outright banned in Uzbek. To account for this, I provide an account of default agreement based on Chomsky (2001)’s weakened Phase Impenetrability Condition and the assumption that case, blocks agreement.

The data presented in this paper—all of which was obtained through in person or online fieldwork—is from several Turkic languages: Turkish, Kyrgyz, Sakha, Uzbek and Altai. Much of the Turkish and Sakha data in this paper has been supplemented with data from the literature, especially from Kornfilt (2005), Baker and Vinokurova (2010) and Öztürk and Taylan (2015). The Turkish data was obtained through my own native speaker intuitions, and checking them with other native speakers. The Sakha and Uzbek data were obtained from in-person field work from several elicitation sessions. The Altai and Kyrgyz data were obtained from multiple online elicitation sessions via Skype. Apart from Turkish and Uzbek, one native speaker was the source of the data for each of these languages. For Uzbek, the consultant verified her judgments with her husband and mother. Notes were taken from each elicitation session; for each of these languages, follow-up and clarification questions were occasionally asked via email.

This paper is structured as follows. Section 2 introduces the reader to the concepts discussed in the paper. Section 3 reviews Öztürk and Taylan (2015)’s arguments for the possessive suffix not merely being an agreement marker, and I discuss its consequences on theories of case. Section 4 explores the distribution of case and agreement with Turkic non-subject RCs, concluding that even in Sakha under B&V’s approach, D<sup>0</sup> does not always assign genitive case. Section 5 discusses the novel problem of Turkic default agreement with complex possessors (partitive NPs, adnominal pronouns, inflected reflexives and pronouns), which provides a strong argument in favor of using the configurational theory of case for the Turkic genitive. I conclude in section 6.

## 2 Background

In this section, I provide the reader with an introduction to relevant issues in case theory, the properties of genitive case crosslinguistically and adnominal pronoun constructions. In section 2.1, I discuss the two main theories of case in the literature: case via agreement and configurational case theory, and summarize B&V's approach to the genitive in Sakha. In section 2.2, I summarize Baker (2015)'s discussion of genitive case, and defend the view that the genitive even in Turkish and Sakha can be analyzed as an unmarked case. Section 2.3 introduces the reader to APCs and default agreement in Finnish, providing the background for Turkic default agreement.

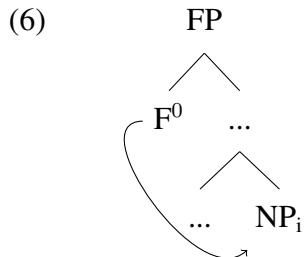
### 2.1 Two theories of case: how are nominative and genitive assigned?

I will argue that the assignment of genitive case is best captured under the configurational theory of case, in which different cases are assigned based on whether there are other nominals in the same local domain.<sup>1</sup> Marantz (1991) defines four kinds of case in the following hierarchy. The notion that unmarked case is environment-sensitive will be crucial in sections 3 and 4.

- (5) Case realization disjunctive hierarchy (top to bottom)
  - a. Lexical/oblique case: case determined by the lexical properties of an item. Ex. quirky case in Icelandic
  - b. Dependent case: assigned depending on the relationship between nominals in some domain. Ex. accusative and ergative
  - c. Unmarked case (environment-sensitive): case assigned automatically to any NP in a clause (nominative/absolutive) or any NP in an NP/DP (genitive)
  - d. Default case: assigned to any NP left unmarked for case

Default case should not be confused with unmarked case, for unmarked case refers to case which does not depend on other nominals within the domain to be assigned, nor is it lexically assigned. The term "unmarked" refers to the nominative and absolute often being morphologically null crosslinguistically. For the purposes of this paper, we are only concerned with the unmarked case, as genitive can be a kind of unmarked case, by hypothesis.

A competing alternative is the functional head model of case assignment. Case is assigned to a local noun phrase, NP, by a probing functional head  $F^0$ . If  $F^0$  c-commands NP and is able to find an NP in its search domain, then it is able to assign its case to NP; this is shown in (6) below:



<sup>1</sup>This paper is concerned only with morphologically observable case, in the sense of the distribution of morphological forms of nominals, rather than abstract case-licensing; see Marantz (1991) on whether abstract case exists.

According to Baker and Vinokurova (2010), this case assignment is parasitic on the simultaneous  $\phi$ -feature agreement between  $F^0$  and NP. If there is no agreement, there is no case assignment.

Given these two theories of case, some authors, such as B&V and Baker (2015), have argued that both of these methods of assigning case exist crosslinguistically, and in some cases even in the same language, such as Sakha. Both argue that nominative and genitive case assignment cannot be accounted for in the Marantz (1991) approach, because nominative and genitive case appear only when a verb or a determiner respectively agrees with them.<sup>2</sup> Some of their evidence is given in (7a)-(7b), which may be ruled out due to the absence of nominal agreement, as genitive case cannot be assigned. This data also applies to Turkish, but further discussion is in section 3:

- (7) a. Aisen aqa-\*(ta)  
Aisen father-\*(POSS.3SG)  
'Aisen's father.'
- b. Masha terilte-ni salaj-yy-\*(ta)  
Masha company-ACC manage-EV.NOML-\*(POSS.3SG)  
'Masha's managing the company.' (Baker and Vinokurova, 2010, p. 634)

But as Levin and Preminger (2015) points out, we could assume that agreement itself is parasitic on case and derive the same results, following Bobaljik (2008). According to Bobaljik, case is assigned configurationally. Agreement looks for case-marked nominals and the appropriateness of the target obeys the *Revised Moravcsik Hierarchy*, which is as follows: unmarked case  $\gg$  dependent case  $\gg$  oblique case. This is the opposite of Marantz's hierarchy above, ignoring default case. But for the purposes of this paper, I remain agnostic on agreement being postsyntactic.<sup>3</sup>

Only the unmarked cases, nominative and genitive, are accessible to agreement in Turkish and Sakha. Rather than saying case is parasitic on agreement, we could provide Levin and Preminger (2015)'s account of agreement in Sakha under the configurational case theory, in which the probes  $T^0$ ,  $D^0$  or  $Poss^0$  will search their c-command domains for a nominal bearing unmarked case and agree with it. A final assumption I want to make is that nominative case is just caselessness, following Bittner and Hale (1996) and Kornfilt and Preminger (2015) among others, who argue that unmarked case is best represented as having no proper grammatical representation.<sup>4</sup>

Finally, I grant that these are not the only options for assignment; case assignment via functional heads need not be related to agreement. Legate (2007), for example, defends such a view: but in this paper, I compare and contrast B&V's bimodal approach to case assignment within Turkic, arguing that only one of those modalities is needed. I remain agnostic on Legate's approach.

## 2.2 The crosslinguistic properties of the genitive: which theory is right?

Though B&V argue that genitive case in Sakha is better analyzed as assigned via agreement, Baker (2015) points out that in other languages it is more plausible to think of genitive as being

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<sup>2</sup>For our purposes, I will focus only on how the genitive case is assigned in Sakha, which B&V argue is assigned by agreement via functional heads. However, they argue that accusative and dative case are both assigned under the configurational case approach as a form of dependent case.

<sup>3</sup>See Preminger (2014) for an account in which agreement and case assignment are both syntactic.

<sup>4</sup>Though Kornfilt & Preminger's goal is ultimately (though it is not stated as such in the paper, Omer Preminger, p.c.) to claim that even genitive case is caselessness, I must argue otherwise; I will try to show in section 5 that genitive case-marked nominals *do* have a different syntactic representation compared to nominative nominals, given the differences in default agreement with APCs.

an unmarked case. Turkish and Sakha on one hand, and Japanese and Tamil on the other, have significantly different properties, and this might indicate something fundamental in the way their respective genitive cases are assigned.

Given these differences, Baker (2015) proposes that in Turkish and Sakha, genitive case is assigned via agreement, whereas in Japanese and Tamil it is assigned as an unmarked case. I will discuss these properties in this section, and conclude that the genitive in Turkish and Sakha may also be an unmarked case, with an assumption that has independent support.

Starting with Baker (2015)'s examples of Tamil in (8a)-(8b), he notes that the genitive in Tamil, *-ooṭa*, has a different exponent from the nominative which is null, the accusative *-e* and the dative *-ukku*. In addition, there is no agreement on the head noun, unlike Turkish and Sakha. Further, Tamil allows more than one genitive-marked NP inside the possessive structure. Japanese is also similar, allowing multiple genitives with no possessive suffix:

- |                              |                             |
|------------------------------|-----------------------------|
| (8) a. vanṇaañ-ooṭa viiṭu    | c. Itachi no karasu         |
| washerman-GEN house          | Itachi GEN crow             |
| ‘the washerman’s house’      | ‘Itachi’s crow’             |
| b. John-ooṭa Mary-ooṭa viiṭu | d. Ryu no Ken no hakai      |
| John-GEN Mary-GEN pic.       | Ryu GEN Ken GEN destruction |
| ‘John’s picture of Mary’     | ‘Ryu’s destruction of Ken’  |

Baker (2015) points out that the genitive cannot be a dependent case in any of these languages, because if it were, then under Baker's configurational theory of case, we would expect only the highest DP in the nominal to get marked genitive. On the other hand, this is not possible in Turkish or Sakha, where there can only be one genitive-marked NP in a possessive construction:

- (9) \* Zeynep-in Paris-in resim-i  
 Zeynep-GEN Paris-GEN picture-POSS.3SG  
 ‘Zeynep’s picture of Paris’

According to Baker, this leaves two main possibilities as to how genitive case is assigned crosslinguistically. It may either be assigned by a functional head inside the nominal, perhaps by Poss<sup>0</sup>, as a consequence of agreement. As a consequence, only one genitive-marked NP would be allowed inside an NP. Or it could be a form of unmarked case which assigns genitive to any nominals in the Spec position in a functional projection of the noun, as in Japanese or Tamil, allowing multiple genitive-marked NPs inside an NP.<sup>5</sup>

But just from the observation that Turkish and Sakha license one genitive-marked NP in an NP via nominal agreement, while Japanese and Tamil license multiple without such agreement, it doesn't follow that agreement licenses the genitive. It could also be, as Levin and Preminger (2015) point out, that nominal agreement in Turkish and Sakha is dependent on the genitive. The genitive could be analyzed as an unmarked case even in Turkish and Sakha, where the presence of the possessive suffix could be parasitic on case, rather than a consequence of agreement.

If this is correct, despite this seeming correlation between single unmarked case-licensing and the presence of agreement that Baker notes, there is no generalization to be accounted for. Then

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<sup>5</sup>This could be seen as a departure from how unmarked case is assigned according to Marantz (1991), where unmarked case could be assigned only once per domain while all other NPs would be eligible for dependent case.

how do we derive the fact that Turkish and Sakha only allow one genitive per possessive construction? Recall that genitive case is assigned to all nominals in Spec, NP position under Baker's version of the configurational theory. If Turkic nominals only had a single specifier position, and Japanese nominals had more than one specifier position, this would also explain the facts.

Looking beyond nominal phrases, there is independent reason to think that Turkish clauses in general only allow one specifier per projection, as Kornfilt (1991) points out. In (10) below, *medeni ülkeler* 'civilized countries' and *erkekler* 'men' would have to be dative and genitive-marked respectively for the sentence to be grammatical:

- (10) \* medeni ülke-ler erkek-ler ortalama hayat süre-si kısa  
 civilized country-PL man-PL average life span-CMPD short  
 '(Intended meaning) The life of men in civilized countries is short.'

On the other hand, Japanese clauses are well known for allowing multiple nominative-marked nominals; Kuno (1973) provides the example below which is the Japanese version of (10):

- (11) Bunmeikoku-ga dansei-ga heikinzyumyoo-ga mizikai  
 civilized.countries-NOM male-NOM average.lifespan-NOM is.short  
 'The life of men in civilized countries is short.'

It is therefore unsurprising that multiple genitives are allowed in Japanese nominals.

If there is no such correlation between the presence of agreement, and the number of NPs bearing unmarked case in an NP or TP, we would expect contexts in which multiple NPs with unmarked case are present with agreement.<sup>6</sup> This prediction is borne out in at least Turkish and Uzbek nominalized clauses.<sup>7</sup> The embedded clauses in (12a) and (12b) have two NPs bearing unmarked case, one nominative and one genitive. The preceding argument—the subject—must be genitive-marked. The nominal agreement that arises on the embedded verb depends on an agreement hierarchy: 2>>3 and 1>>2; it doesn't depend on which argument is genitive-marked. Only one argument must agree, and it can also be the nominative argument.

- (12) a. Ben Deniz-in siz ol-duğu-\*(nuz)-u bil-iyor-um  
 1SG Deniz-GEN 2PL is-PRES-\*(POSS.2PL)-ACC know-PRES-1PL  
 'I know that Deniz is you<sub>SG, formal</sub>.'  
 b. Ben siz-in Deniz ol-duğu-\*(nuz)-u bil-iyor-um  
 1SG 2PL-GEN Deniz is-PRES-\*(2PL)-ACC know-PRES-1PL  
 'I know that you<sub>SG, formal</sub> are Deniz.'

To recap, the genitive even in Turkish and Sakha might be analyzed as an unmarked case, with the independently supported constraint to block multiple specifiers in Turkish nominals.

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<sup>6</sup>Outside of Turkic, Hindi allows both the subject and object of a transitive clause to bear unmarked (nominative) case or a case clitic (ergative or accusative). Agreement is with the subject if both are nominative, and with the nominative object if the subject is ergative, as Butt (1993) points out. However, Legate (2007) has argued that the nominative object in Hindi may possess unmarked nominative yet abstract accusative.

<sup>7</sup>See Gribanova (2019) for the same data from Uzbek and an account. As Gribanova points out, the configurational theory of case needs not make any changes to account for these facts, but B&V would need to assume two separate feature sets on D, one for φ-feature valuation and one for genitive case assignment.

## 2.3 Default agreement with adnominal pronoun constructions

In this section, I introduce the reader to prior discussion on default agreement with complex possessors. Recall that while pronouns agree normally with head nouns in simple possessive structures, complex possessors are not able to do so:

- (13) a. (Biz) iki-miz-in kedi-si b. biz Türk-ler-in kitab-ı  
(1PL) two-POSS.1PL-GEN cat-POSS.3SG 1PL Turk-PL-GEN book-POSS.3SG  
‘the cat that belongs to the two of us’ ‘the book that belongs to us Turks’

A Turkish APC is given in (13b) above. For Postal (1969), the pronoun in APCs takes a lexical NP as its argument. For Postal this was evidence that pronouns are determiners, as determiners also take lexical NPs as arguments, ex. *the linguists*. But I concur with Höhn (2019) that the pronoun in APCs in Turkish is better analyzed as a specifier or an adjunct, and refer the reader to Höhn (2017) for further discussions on APCs, and section 5 for the Turkish APC structure.

As it turns out, this phenomenon is not unique to Turkish or the Turkic languages. In an unpublished manuscript, Holmberg (2017) attempts to come up with an account of default agreement in Finnish and Hungarian, although he does not refer to it as default agreement. He notes that the pronoun in the APC does not reflect the case assigned to the pronoun in the APC; for example, in the possessive structures below, the possessive clitic must attach to the entire AP, and not the determiner which heads the possessor:

- (14) a. \* your children opinions b. ? you children’s opinions

He notes that this is possible in Finnish, however. First, he points out that Finnish has APCs:

- (15) Me lapset voi-mme tulla mukaan  
we.NOM children.NOM can-1PL come along  
‘We children can come along.’

Importantly for our purposes, he notes that in a possessive construction in which the possessor is an adnominal pronoun, there cannot be agreement on the head noun; in Finnish the null form of the noun is the 3rd person singular form, as seen in (16a)-(16b). This is despite normal possessive structures in Finnish having obligatory or optional agreement, depending on the dialect, as in (16c). In addition, the pronoun of the AP has genitive case in (16a)-(16b):

- (16) a. teidän lapsien mielipitee(\*-nne)  
you.GEN children.GEN opinions.3SG-(<sup>2</sup>PL)  
‘you children’s opinions’  
b. Meidän lapsien mielipiteitä(\*-mme) ei oteta vakavasti.  
we.GEN children.GEN opinions.PAR.3SG(<sup>-1</sup>PL) not take.PASS seriously  
‘We children, our opinions are not taken seriously.’  
c. teidän mielipitee-nne  
you.GEN opinions-2PL  
‘your opinions’

Like Turkish, there is full agreement on the verb in the subject position of a sentence; or in other words when the subject has nominative case-marking (by hypothesis, just caseless):

- (17) Me lapset voi-mme tulla mukaan  
       we.NOM children.NOM can-1PL come along  
       ‘We children can come along.’

How do we account for there being default agreement only with genitive case-marked APCs? An intuitive answer is to rely on a syntactic KP layer projected by the genitive case blocking agreement, and indeed, this is Holmberg's answer. The nominative does not project a KP layer according to this account. In the tree below, KP, which blocks agreement, is circled in gray:

- (18)

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graph TD
    PossP[PossP] --- Poss[Poss]
    PossP --- NP1[NP]
    Poss --- [uΦ][uΦ]
    Poss --- [EPP][EPP]
    Poss --- KP((KP))
    NP1 --- NP2[NP]
    NP1 --- home[home]
    KP --- K[K]
    KP --- DP[DP]
    K --- [GEN][GEN]
    DP --- D[D]
    DP --- N[N]
    D --- [1PL][1PL]
    N --- children[children]
  
```

The diagram shows a hierarchical structure for the sentence 'K home'. At the top is 'PossP', which branches into 'Poss' and 'NP'. The 'Poss' node contains '[uΦ]' and '[EPP]'. Below 'Poss' is a shaded circle labeled 'KP'. The 'NP' node branches into 'NP' and the word 'home'. The 'KP' node branches into 'K' and 'DP'. 'K' is associated with '[GEN]'. 'DP' branches into 'D' and 'N'. 'D' is associated with '[1PL]' and 'N' is associated with 'children'.

In a nutshell, Holmberg proposes that KP blocks access to the φ-features of the pronoun, but the derivation does not crash and default agreement arises on the head noun. But this has the obvious problem of deriving default agreement even with genitive case-marked regular pronouns; Holmberg does not address this problem. Both regular and adnominal pronouns must be case-marked, or in other words project KPs; Holmberg seems to suggest only APCs project KPs.

Even so, evidence for the KP-account is seen in Holmberg's evidence from Hungarian, which has dative-marked possessors. Hungarian allows two kinds of possessive constructions, one in which the possessor is morphologically unmarked and the possessor follows the definite article, and another in which the possessor is dative-marked and precedes it:

- (19) a. a ti vélemén-ye-tek  
the you opinion-POSS-2PL  
'your opinion'  
b. nektek a vélemén-ye-tek  
you.DAT the opinion-POSS-2PL  
'your opinion' Holmberg (2017)

Dative case-marking blocks agreement with adnominal pronouns, as seen in (20):<sup>8</sup>

- (20) ? csak nektek gyerekeknek a véleménye(\*-tek) befolyásolja a döntésünket.  
only you.DAT children.DAT the opinion(\*-POSS.2PL) influences the decision.ACC  
'It's only you children's opinion that influences our decision.'

If case blocks agreement, coming up with an account of default agreement means we would have to assume Bobaljik (2008)'s framework in which agreement itself is parasitic on case. Otherwise,

<sup>8</sup>APCs are marginally possible with dative case-marked possessors in Hungarian, but not possible at all with bare possessors. Dative-marking is present on both the possessor and the pronoun, like Finnish.

a KP layer would not be present prior to agreement, and full agreement would be derived as opposed to default. With this framework in mind, I will propose an account of Turkic default agreement in section 5.2, in which the difference between a regular pronoun and an AP is due to an additional Spell-Out domain blocking the  $\phi$ -features of the adnominal pronoun.

## 3 Turkish possessive free genitives

This section will be dedicated to the first empirical argument in favor of Marantz (1991): Turkish licenses simple possessive structures without agreement, where the possessor is genitive. It will be argued that nominal agreement is not merely optionally dropped; I will argue that agreement is impossible with adjunct genitives in Turkish. Much of this section will be dedicated to the findings of Öztürk and Taylan (2015). In section 3.1 I present the three kinds of possessive structures in Turkish, and 3.2 goes over the argument vs. adjunct debate for possessors. In 3.3, I provide a configurational analysis of case assignment to genitive adjuncts.

### 3.1 Turkish possessive structures

The first asymmetry is one that, as far as I am aware, is only found in Turkish: genitive marking on what seems to be adjuncts. I will argue, following Öztürk and Taylan (2015), that in simple Turkish possessive structures, the genitive may be an argument or an adjunct.

Barker (1995) and Partee and Borschev (2003) among others have attempted to determine whether genitive-case marked NPs (genitives) have an argument or a modifier relation with the noun they co-occur with. Turkish is a particularly good language to investigate this, given that it has three kinds of possessive structures which can be differentiated.

The genitive-possessive (GP) in (21a) is used when there is a specific entity bearing a possessive relation to the head noun. This makes use of two suffixes: genitive case-marking on the possessor and the possessive suffix on the possessee. The possessive compound (PC, alternatively known in the literature as an *izafet* construction) in (21b) is used for possessors which are not specific.<sup>9</sup> In this case, only the possessive suffix is present, with no genitive case-marking on the possessor, and the two nouns form a compound.<sup>10</sup>

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<sup>9</sup>If we put aside the conclusion in Bošković (2008) and others that Turkish noun phrases lack a DP layer, then a natural way to distinguish between GPs and PCs is that GPs have a DP possessor but PCs have an NP possessor. Thus, only a DP possessor may receive genitive case-marking.

<sup>10</sup>In rare cases, a specific possessor that does not bear genitive case-marking may also form a compound. An example from Baker (2015) is given in (i), in which Baker takes *Paris*, which is modifying the head noun, to have nominative case given the lack of genitive case marking. However, I have added the adjective *iyi* ‘good’ between the two nouns to test for noun-noun compounding. An adjective cannot be placed after *Paris*, indicating that this is likely to be another case of noun-noun compounding even with a specific possessor.

- (i)     Ali-nin Paris-(\*)in (\*iyi) resim-i  
Ali-GEN Paris-(\*)GEN (\*good) picture-POSS.3SG  
‘Ali’s (\*good) picture of Paris.’

The adjective, however, can be placed before *Paris resimi*, indicating that it is an NP rather than a DP, and therefore a noun-noun compound. The reader is referred to Kunduracı (2013) for more information on compounding.

The third and the main form which will be discussed in this section is the possessive-free genitive (PFG), represented in (22). In this structure, the possessor has genitive case-marking but the head noun lacks the possessive suffix:



Öztürk and Taylan (2015) contribute to this debate by arguing that, contra Kunduracı (2013), PFGs are not merely a colloquial variant of GPs in which the possessive suffix is dropped. There are multiple contexts in which GPs are allowed but the PFG is not, depending on the semantic relation between the possessor and the possessee. More precisely, Öztürk and Taylan (2015) argue that in PFGs, the lack of the possessive suffix indicates that the possessor is an adjunct, while in GPs, the presence of the possessive suffix indicates that the possessor is an argument.

### 3.2 Argument vs. adjunct genitive case-marked NPs

Prior to discussing Turkish further, a background on the argument vs. modifier debate for genitives will be provided. It has been noted, for example in Partee and Borschev (2003) (P&B), that there might be two different kinds of possessors, as seen in the contrast between a sentence such as *that team is Caitlin's* and *#that brother is Caitlin's*, although *Caitlin's team* and *Caitlin's brother* are both acceptable. How should this difference be analyzed?

P&B provides a semantics in which *Caitlin's* in *that team is Caitlin's* is a modifier, in that the genitive is just an intersective modifier. Non-relational nouns such as *team* can accept modifier genitives by incorporating a free relation variable R, "free R" whose value must be supplied by the context. On the other hand, the genitive in *#that brother is Caitlin's* is an argument and its value is not supplied by the context ("inherent R"); instead the relational noun is elided: *#Her mother is also Mary's mother*; the semantics requires it take arguments.

Based on this semantics, P&B argue that possessives in Russian may either be an argument if postnominal, or a modifier if prenominal. This is based on the contrast between (23a)-(23b) and (23c)-(23d), showing that the transitive relation between a victim and their murderer can only be expressed postnominally, and not prenominally. This is the strict inherent R relation; the meaning of the noun *murderer* requires it inherently take arguments. (23d) is not acceptable in the inherent R sense; instead, it must have a free R meaning supplied by the context:

- (23) a. portrait Mamy  
           portrait.M.SG Mama.GEN.SG  
           ‘Mama’s portrait’

b. Mamin portret  
       Mama.M.SG portret.M.SG  
       ‘Mama’s portrait’

c. ubijca Peti murderer.M.SG Petja.GEN.SG 'Petja's murderer'	d. # Petin ubijca Petja.M.SG murderer.M.SG 'Petja's murderer'
--	---

In (23b)-(23d), the possessors are not genitives, but the argument vs. modifier distinction still seems to arise. This distinction is purely semantic: as Partee and Borschev (2003) point out, regardless of syntactic structure, different languages have different ways of expressing this distinction. Like Russian, notice that in English *#That murderer is Petja's* does not accurately paraphrase *Petja's murderer* in the sense of *the one who murdered Petja* but instead paraphrases: *that murderer belongs to Petja*.

The current hypothesis is that PFGs are modifiers, while normal genitives are arguments. To provide evidence in favor of this, I will discuss several semantic tests, mainly from Öztürk and Taylan (2015), to draw a distinction between Turkish GPs and PFGs. For example, the transitive relation between a victim and a murderer also cannot be expressed via PFGs, as seen in the contrast in (24). This is parallel to the Russian contrast given in (23c)-(23d); (24b) is acceptable only if referring to a murderer the possessor hired:

- |   |   |
|---|---|
| (24) a. Deniz-in katil-i<br>Deniz-GEN murderer-POSS.3SG<br>'Deniz's murderer' | b. # Deniz-in katil<br>Deniz-GEN murderer<br>'Deniz's murderer' |
|---|---|

I now provide the background for further semantic tests. Vikner and Jensen (2002) distinguishes between four types of semantic relations in genitive constructions, as given in (25):

- |  |  |
|--|--|
| (25) a. Inherent: Turkey's <i>capital</i> , Mary's <i>sister</i>                         |  |
| b. Part-whole: Mary's <i>nose</i> , Turkey's <i>province</i>                             |  |
| c. Agentive: Mary's <i>lasagna</i> (that she baked), Mary's <i>book</i> (that she wrote) |  |
| d. Control: Mary's <i>car</i> (that she owns), Mary's <i>cat</i> (that she owns)         |  |

Öztürk and Taylan (2015) verifies that GPs are capable expressing each of the relations in (25); all of these relations are provided with the GPs in (26).

- |   |  |
|---|--|
| (26) a. Öğretmen-in hala-sı<br>teacher-GEN aunt-POSS.3SG<br>'The teacher's paternal aunt'   | inherent: kinship                      |
| b. makale-nin başlığı-ı<br>article-GEN title-POSS.3SG<br>'the article's title'              | inherent: relational                   |
| c. Bina-nın yıkım-ı<br>building-GEN demolition-NOML-POSS.3SG<br>'the building's demolition' | inherent: verb-related                 |
| d. Çocuk-un burnu<br>child-GEN nose-POSS.3SG<br>'the child's nose'                          | part-whole: body part                  |
| e. Araba-nın lastiği-ı<br>car-GEN tire-POSS.3SG<br>'the car's tire'                         | part-whole: autonomous, component part |

- f. Masa-nın kenar-i  
 table-GEN edge-POSS.3SG  
 ‘the edge of the table’ part-whole: dependent, component part
- g. Çocuğ-un şiir-i  
 child-GEN poem-POSS.3SG  
 ‘the child’s poem’ agentive
- h. Kadın-in araba-sı  
 woman-GEN car-POSS.3SG  
 ‘the woman’s car’ control, (Öztürk and Taylan, 2015, p. 4-5)

This shows that GPs can express any semantic relation as long as the head noun allows it. On the other hand, many of these semantic relations cannot be expressed with PFGs. In particular, removing the possessive suffix, which turns the genitives in (26) into PFGs, is not possible when the genitive is inherently relational to the head nouns, as in (26a)-(26c). It is also not possible in (26d), in which the head noun is a body part of the genitive, or (26f), where the genitive is a dependent part-whole of the head noun.<sup>11</sup> Otherwise, PFGs are possible:

- (27) a. \* Öğretmen-in hala  
 teacher-GEN aunt  
 ‘The teacher’s paternal aunt’ inherent: kinship
- b. \* makale-nin başlık  
 article-GEN title  
 ‘the article’s title’ inherent: relational
- c. \* Bina-nın yıkım  
 building-GEN demolition-NOML  
 ‘the building’s demolition’ inherent: verb-related
- d. \* Çocuğ-un burun  
 child-GEN nose  
 ‘the child’s nose’ part-whole: body part
- e. Araba-nın lastik  
 car-GEN tire  
 ‘the car’s tire’ part-whole: autonomous, component part
- f. \* Masa-nın kenar  
 table-GEN edge  
 ‘the edge of the table’ part-whole: dependent, component part
- g. Çocuğ-un şiir  
 child-GEN poem  
 ‘the child’s poem’ agentive
- h. Kadın-in araba  
 woman-GEN car  
 ‘the woman’s car’ control, (Öztürk and Taylan, 2015, p. 5)

<sup>11</sup>Dependent-part wholes are relations such as *bottom*, *side*. Autonomous part-wholes are relations such as *wheel*. Dependent-part wholes are lexically transitive, like inherent R nouns. Autonomous part-wholes can take a free R reading, allowing modifiers. Furthermore, they mark (27d) as grammatical, but I and my consultants do not share this judgment; as a matter of fact, it would contradict their semantics if it were acceptable.

Öztürk and Taylan (2015) notes that the head nouns which are compatible with PFGs are those which require type-shifting operators in order to take a genitive as an argument in the system of Vikner and Jensen (2002), but PFGs cannot occur in cases in which the head noun must take a genitive that is an argument.

The semantic tests seem to establish that the genitive in the PFG is a modifier. Does this show the genitive is an adjunct? Öztürk and Taylan (2015) do not have many arguments in support of this point, but there are purely syntactic distinctions in their favor. We seem to obtain an extraction asymmetry with adjunct vs. argument possessors. Turkish seems to very marginally allow possessor extraction with simple PSes, as in (28a), but when we attempt to extract the possessor out of a PFG, there is a significant distinction as the result is completely ungrammatical in (28b):

- (28) a. ?? Kim<sub>i</sub>-in siz-e göre t<sub>i</sub> kedi-si en-çok kek-i yed-i?  
           who-GEN 2PL-DAT according cat-POSS.3SG most cake-ACC eat-PST.3SG  
           ‘In your opinion, whose cat ate the most cake?’
- b. \* Kim<sub>i</sub>-in siz-e göre t<sub>i</sub> kedi en-çok kek-i yed-i?  
           who-GEN 2PL-DAT according cat most cake-ACC eat-PST.3SG  
           ‘In your opinion, whose cat ate the most cake?’

Furthermore, Öztürk and Taylan (2015) notes that if the possessor in PFGs is an adjunct, we would expect it to be more flexible in its word order than argument genitives in Turkish. This prediction is borne out; variation in order is completely possible with demonstrative adjuncts with PFGs ((29a)-(29b)), but very marginal at best with argumental genitives ((29c)-(29d)):

- (29) a. Bu [pointing] ben-im bisiklet sat-il-a-ma-dı hala.  
           DEM 1SG-GEN bike sell-PASS-MOD-PST.3SG yet  
           ‘This bicycle of mine has not been sold yet.’
- b. Ben-im bu bisiklet sat-il-a-ma-dı hala.  
           1SG-GEN DEM bike sell-PASS-MOD-PST.3SG yet  
           ‘This bicycle of mine has not been sold yet.’
- c. \* Bu [pointing] ben-im bisiklet-im sat-il-a-ma-dı hala.  
           DEM 1SG-GEN bike-POSS.3SG sell-PASS-MOD-PST.3SG yet  
           ‘This bicycle of mine has not been sold yet.’
- d. Ben-im bu bisiklet-im sat-il-a-ma-dı hala.  
           1SG-GEN DEM bike-POSS.3SG sell-PASS-MOD-PST.3SG yet  
           ‘This bicycle of mine has not been sold yet.’

To recap, the evidence that the possessor in PFGs is a modifier is convincing, given that it can only express the so-called "free R" meanings. It is reasonable to think that the modifier is an adjunct, but it doesn't follow with certainty; this was the flaw in Öztürk and Taylan (2015)'s point. But I have given a couple syntactic tests in support of this conclusion.

### 3.3 Theoretical Discussion

The presence of genitive case in PFGs, without agreement, is not predicted under the functional head model. Under this, genitive case-marking is parasitic on nominal agreement in the Turkic

languages, and nominal agreement should never be optional in Turkish; it must always be pronounced. If the argument made in the subsection prior is correct—that the possessive-free genitive is an adjunct—then it is not clear how it can be licensed without agreement.<sup>12</sup>

One could claim that agreement is still present on PFGs, but merely invisible with adjuncts. This might be some kind of a default agreement, which arises due to the failure of the probe on the head noun to agree with the genitive adjunct. But Turkish already exhibits default agreement with genitive-marked partitive NPs and adnominal pronouns, which is always 3SG, and never null. Indeed, PFGs can never be partitives constructions or APCs, as shown in (30a)-(30b); only complex possessors trigger default agreement in Turkic. This shows that there is a contrast to be made between genuine lack of agreement, as in PFGs, and default agreement, which is a probing attempt that fails but does not lead to the derivation crashing:

- (30) a. \* Iki-miz-in                kedi                b. \* biz Türk-ler-in    kitap  
           two.POSS.1PL-GEN cat                              1PL Turk-PL-GEN book  
           'the cat that belongs to the two of us'            'the book that belongs to us Turks'

On the other hand, if we assume a configurational theory of genitive case assignment, the existence of PFGs is unsurprising: under Marantz’s theory, unmarked case assignment is already environment-sensitive. It seems that Turkish agreement could be sensitive to the argument–adjunct distinction, in a way that other languages may not be.<sup>13</sup> Here I follow Bobaljik (2008)’s framework of agreement as a postsyntactic phenomenon, in which agreement looks for case-marked nominals. In the usual case, if a genitive is Merged normally—as an argument–nominal agreement representing the genitive’s  $\phi$ -features arises on the head noun.

But if this genitive is an adjunct, because the PF in Turkish is sensitive to the argument-adjunct distinction for purposes of agreement, no agreement arises. This conclusion becomes a more natural one with the following observation. As Hornstein and Nunes (2002) points out, the linearization of adjuncts in PF involves different mechanisms than the ones involved in linearization of arguments in PF. Rodrigues (2006) examines Brazilian Portuguese production errors in subject-verb agreement, finding that agreement errors are much more common if the PP is an argument, rather than an adjunct. Turkish also seems to be sensitive to this contrast.

It has been long noted in the literature that adjunction is a different process from plain Merge. For example, Chomsky (2004) distinguishes between two types of Merge: pair- and set-Merge, which are for adjuncts and arguments respectively. Adjuncts are not assumed to be in the search domain of a probe. Alternatively, Hornstein and Nunes (2002) proposes that adjunction does not project a label, unlike when arguments are Merged. Assuming any of these approaches would lead to the correct result, as long as PF in Turkish remains sensitive to this contrast.

<sup>12</sup>Julie Legate (p.c.) points out that it's normal for cases to have multiple uses and sources within a language, and that the PFG could be one such instance—which is not assigned via agreement, perhaps as some kind of lexical case. This is at odds with the literature: all works prior to Öztürk and Taylan (2015) assume that it is merely a colloquial variant of the generic possessive structure, while Öztürk and Taylan (2015) claims that the source of the genitive in PFGs is the same. Even so, it could be that PFGs could be a special instance of genitive case-marking. However, Baker's approach would be forced to make this claim, while the approach presented here does not have to. The difference is that, if PFGs are not a special instance of genitive case assignment, then this poses no problem for Bobaljik's approach. By contrast, the existence of PFGs is not predicted under Baker's account.

<sup>13</sup>Susi Wurmbrand (p.c.) notes that Icelandic, among other languages, shows agreement with adjuncts.

## 4 Agreement in Turkic non-subject relative clauses

In this section, I present a second argument in favor of genitive being an unmarked case. I argue against B&V's assertion that  $D^0$  always assigns genitive case; it may also assign nominative in certain Turkic languages (Uzbek, Sakha and Altai). More generally,  $D^0$  seems to be able to assign either unmarked case in these languages. I first present three basic types of Turkic non-subject relative clauses (RC) from Kornfilt (2005) in 4.1, in which agreement is always present with genitive case-marked RC subjects but never present with bare RC subjects. But as noted, I present data challenging this correlation from Uzbek, Sakha and Altai in 4.2 in which nominal agreement is present with nominative RC subjects. In 4.3, I discuss why this is evidence in favor of agreement being parasitic on case; agreement on the head noun in Sakha and Uzbek would not be expected to assign nominative case under B&V's approach.

### 4.1 The basics of Turkic non-subject relative clauses

Kornfilt (2005) claims that if Turkic non-subject relative clauses have a nominative subject, then there is no agreement. If they have a genitive subject, agreement is present, on either the head noun or the RC predicate. She describes three types of non-subject relative clauses in Turkic. Starting from modern Turkish, we find that agreement is always present on the RC predicate, the subject must be in genitive case. This is shown in (31). Instead of Kornfilt's "type 1," I name this type GEN-POSS<sub>V</sub>, indicating the presence of genitive and nominal agreement on the RC predicate:

- (31) Deniz-in ye-diğ-i tavuk döner  
Deniz-GEN eat-FN-POSS.3SG chicken doner  
'the chicken döner Deniz ate.'

It is important to note that this is nominal agreement; as seen in the previous section, the possessive suffix seen on the head noun in possessive structures was of the form -(s)I for 3rd person singular. Yet this agreement is on the RC predicate, and not the head noun.<sup>14</sup>

We also see another kind of RC in which the subject of the RC is nominative, and there is no agreement, on the head noun or on the RC predicate. Many Turkic languages exhibit this; two examples from Kyrgyz in (32a) and Altai are in (32b) below, hereby named type NOM-∅:

- (32) a. Biz jaz-gan kitap  
1PL write-PTPL book  
'the book we wrote'
- b. Bis kçıır-gan biçik  
1PL write-PTPL book  
'the book we wrote'

A third type, like the first, has a genitive-marked RC subject. But now, agreement is marked on the head noun of the RC. I have made slight updates to (32a)-(32b) in (33a)-(33b) below; both Kyrgyz and Altai also have this type, GEN-POSS<sub>N</sub>, in addition to the type shown above.<sup>15</sup>

<sup>14</sup>Getting into this debate would go beyond the scope of the paper, but this has led some such as Aygen (2002) to argue for the existence of a null noun containing the RC predicate for agreement purposes. Alternatively, in Miyagawa (2011) and Kornfilt (2005), it is assigned as a lexical case by  $C^0$ .

<sup>15</sup>In my survey of the Turkic languages Turkish, Kyrgyz, Sakha, Uzbek, Altai, Uyghur and Kazakh, out of these basic types, it seems that type NOM-∅ and GEN-POSS<sub>N</sub> are the most common types, and if a language has type NOM-∅ it often also has type GEN-POSS<sub>N</sub>. Type GEN-POSS<sub>V</sub> seems to be the rarest. In addition, Kornfilt (2005) points out that Azeri and Old Turkic have type NOM-∅ while Tuvan and Turkmen have type GEN-POSS<sub>N</sub>. Azeri does not have type GEN-POSS<sub>N</sub>, however.

- (33) a. Biz-din jaz-gan kiteb-ibiz  
           1PL-GEN write-PTPL book-POSS.1PL  
           ‘the book we wrote’
- b. Bis-ting kıçır-gan biçig-is  
           1PL-GEN write-PTPL book-POSS.1PL  
           ‘the book we wrote’

Kornfilt (2005) makes the observation that nominal agreement found on Turkic relative clauses is the same agreement that is used to mark possession on the head noun in possessive constructions. In addition, she makes the generalization that agreement is obligatory between a possessor and possessee in terms of  $\phi$ -features in Turkic RCs. But before providing some challenges to these generalizations, I provide a summary of these common types seen above.

- (34) a. Type GEN-POSS<sub>V</sub>: Subject of RC has genitive case, nominal agreement on the predicate of the modifier. Ex: Turkish and Altai. (31), (39)
- b. Type NOM-∅: The subject is in nominative, there is no overt agreement. Ex: Sakha, Altai, Old Turkic, Uzbek, Azeri, Kyrgyz and Uyghur. (32a)-(32b)
- c. Type GEN-POSS<sub>N</sub>: Genitive subject of the relative clause, overt agreement is visible on the head noun. Ex: Kyrgyz, Uzbek, Uyghur, Sakha and Altai. (33a)-(33b)

## 4.2 Other kinds of Turkic non-subject relative clauses

As noted in section 2.2, Baker and Vinokurova (2010) and Baker (2015) both attempt to draw a neat picture in which in Turkish and Sakha, D<sup>0</sup> assigns genitive case via agreement, while T<sup>0</sup> assigns nominative case. But the first challenge comes, surprisingly, from Sakha.

It is often claimed, by Johanson (1998) among others, that the genitive in Sakha, doesn’t exist. But it does; it is merely almost always syncretic with nominative case, as shown in (35a) where the possessor *Julus* is bare. The only case in which the genitive case marker /-n/ (plus a rule of vowel change) appears is after a 3rd person possessive suffix, as in (35b).<sup>16</sup> It is impossible to drop the genitive case marking after a third person possessive suffix:

- |   |   |
|---|---|
| (35) a. Julus aqa-ta<br>Julus father-POSS.3SG<br>‘Julus’s father’ | b. Julus aqa-ti-*(n)<br>Julus father-P.3SG-GEN father-P.3SG<br>‘Julus’s father’ |
|---|---|

Baker and Vinokurova (2010) suggest that D<sup>0</sup> can assign only genitive case in Sakha, so that even in (35a), *Julus* has genitive case despite being bare. For them, genitive case is almost the same as in Turkish, with the only difference being that it is only pronounced after a 3rd person possessive suffix, and null otherwise. One problem for this analysis is from Sakha relative clauses, in which genitive case marking is always optional, as shown with the contrast in (36a)-(36b):

- (36) a. Julus aqa-ta                sie-bit     at-a  
           Julus father-POSS.3SG eat-PTPL horse-POSS.3SG  
           ‘the horse Julus’s father ate’

---

<sup>16</sup>It is null after a 1st or 2nd person possessive suffix.

- b. Julius aqa-tı-n sie-bit at-a  
 Julius father-POSS.3SG-GEN eat-PTPL horse-POSS.3SG  
 'the horse Julius's father ate'

As a result, one might be tempted to say that  $D^0$  may also assign nominative case, given that the RC subject in (36a) is bare despite agreement being present on the noun; it could be that  $D^0$  assigns nominative to nominals in the verbal domain, to avoid contradicting (35a)-(35b).

B&V also notes this, in which it is claimed that it is merely a "superficial morphological fact... related to the near total loss of genitive case inflection in Sakha" (footnote 22, p. 626). But if this were not a superficial morphological fact, and either nominative or genitive could be optionally assigned by  $D^0$ , this would be problematic for Baker's account. And we do find evidence contradicting the "superficial morphological fact" claim in Uzbek RCs.

Uzbek does not have any kind of loss of its genitive case; it is just as visible as it is in Turkish and other Turkic languages. Like Turkish, the  $\phi$ -features of the possessor are always represented on the possessive suffix; the possessive suffix is not optional and genitive case marking is required in a simple possessive structure, as in (37b).<sup>17</sup> Despite this, the genitive case-marking is fully optional in Uzbek RCs, as illustrated in (37a) below:

- (37) a. Men(-ing) kör-gan kişi-m b. Men\*(-ing) kitob-im  
 1SG(-GEN) see-PTPL person-POSS.1SG 1SG\*(-GEN) book-POSS.1SG  
 'the person I saw' 'my book'

This gives us enough reason to add a fourth type of RC, NOM-POSS<sub>N</sub>, to Kornfilt's list: in which agreement is present on the head noun but the subject of the RC is nominative.

Another Turkic language which raises problems for the B&V account of genitive case assignment is Altai. Altai, another Siberian Turkic language like Sakha, is interesting because it has four different kinds of RCs. But first, like Turkish and Uzbek, the possessor and possessive suffix must match in  $\phi$ -features in Altai, as shown in (38):

- (38) a. Men-ing biçig-im c. Sen-ing biçig-ing e. On-ing biçig-i  
 My book Your book His/her book  
 b. Bis-ting biçig-is d. Sler-ding biçig-er f. O-lor-ding biçig-i  
 Our book Your<sub>PL</sub> book Their book

Going back to the relative clauses of Altai, we see Type GEN-POSS<sub>V</sub> in (39), in addition to the aforementioned types NOM-∅ and GEN-POSS<sub>N</sub>:

- (39) Men-ing jurap koy-go-m juruk  
 1SG-GEN draw AUX-PTPL-POSS.1SG picture  
 'the picture I drew' Skribnik (1986)

It also allows another type that is distinct from the NOM-POSS<sub>N</sub> RC, shown in (40a). In this kind, the subject of the RC has nominative case, and agreement is present on the predicate of the RC. I will refer to this type of RC as type NOM-POSS<sub>V</sub>. Further, like in all other Turkic languages, the possessor cannot be nominative in a simple possessive structure, as in (40b):

---

<sup>17</sup>For further discussion of the genitive case and possession in Uzbek, I refer the reader to Gribanova (2019).

- (40) a. Men sü:-ge-m kıs  
          I love-PTPL-1SG girl  
          ‘the girl I loved (type NOM-POSS<sub>V</sub>)’
- b. Men\*(-ing) biçig-im  
       1SG\*(-GEN) book-POSS.1SG  
       ‘my book’

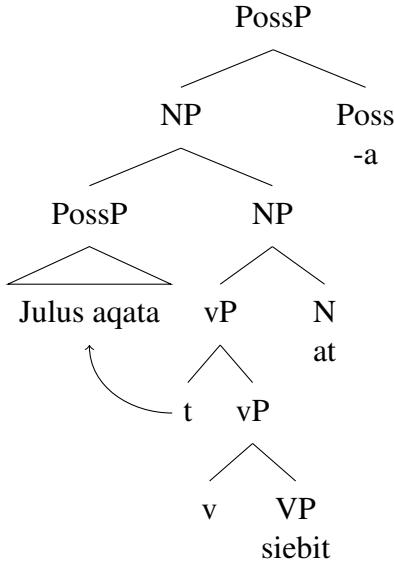
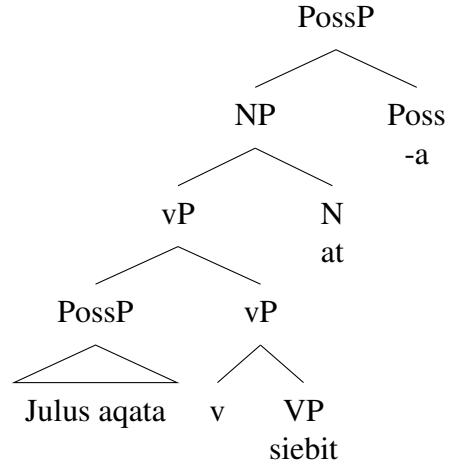
In (41), I provide an updated version of (34):

- (41) a. Type GEN-POSS<sub>V</sub>: Subject of RC has genitive case, nominal agreement on the predicate of the modifier. Ex: Turkish and Altai. (31), (39)
- b. Type NOM-∅: The subject is in nominative, there is no overt agreement. Ex: Sakha, Altai, Old Turkic, Uzbek, Azeri, Kyrgyz and Uyghur. (32a)-(32b)
- c. Type GEN-POSS<sub>N</sub>: Genitive subject of the relative clause, overt agreement is visible on the head noun. Ex: Kyrgyz, Uzbek, Uyghur, Sakha and Altai. (33a)-(33b)
- d. Type NOM-POSS<sub>N</sub>: Subject of RC is nominative, nominal agreement on the head noun. Ex: Uzbek and Sakha. (36a)-(37a)
- e. Type NOM-POSS<sub>V</sub>: Subject of RC is nominative, nominal agreement on the predicate of the modifier. Ex: Altai. (40a)

Future research may reveal more types of Turkic RCs; it would not be surprising if there were languages with genitive RC subjects and no overt agreement.

### 4.3 Deriving the optionality of unmarked case with possessor agreement

Given the optionality of genitive case in Uzbek, Altai and Sakha RCs, it is necessary to provide an analysis of why it is optional. I assume that nominative case is caselessness, following Kornfilt and Preminger (2015), so that nominative case need not be assigned. Deriving the difference in whether genitive or nominative is obtained on the RC subject is straightforward. It simply depends on whether it is in the nominal domain (genitive) or within the verbal domain (nominative). Under the configurational theory of case, the assignment of unmarked cases such as genitive is already environment-sensitive, so this is fully predicted. As such, movement of the RC subject to Spec, NP means genitive case is assigned, but if the RC subject is left inside the vP it is left nominative. I present a derivation of a type GEN-POSS<sub>N</sub> in (42a) and NOM-POSS<sub>N</sub> in (42b):

(42) a. Type GEN-POSS<sub>N</sub>b. Type NOM-POSS<sub>N</sub>

Deriving GEN-POSS<sub>V</sub> is identical to that of (42a), if there is indeed a null noun when there is nominal agreement on the RC predicate, as Aygen (2002) argues. Deriving NOM-POSS<sub>V</sub> is identical to that of (42b) for the same reason. NOM-∅ is also easy to derive, since it just lacks Poss and movement to Spec,NP. This account predicts that GEN-∅ should be attested in Turkic, given that Poss is not necessary for genitive case assignment; only movement to Spec,NP is.<sup>18</sup>

Furthermore, I follow Krause (2001), who argues that RCs in languages such as Turkish and Japanese in which the subject receives genitive case are reduced; rather than being a CP they're reduced to a vP shell.<sup>19</sup> However, I reject her assertion that nominative case needs to be assigned by T<sup>0</sup>, given the analysis of nominative case from Kornfilt and Preminger (2015). The reduced status of the relative allows for the movement of the RC subject to Spec,NP.

One question that I have left unanswered is whether Spec,PossP needs to be filled; can it just be left unfilled, as in (42a) and (42b)? The easy way out would be to say that it can be left unfilled, following Gribanova (2019), whose account will be presented in section 4.4. But there is some evidence that it must be filled, at least in Sakha.

It is possible that there are differences in interpretation between type NOM-POSS<sub>N</sub> RCs on one hand, in which the subject of the RC is bare and the possessive suffix is present, and type NOM-∅ RCs, in which the subject is bare and the possessive suffix is not present. In other words, it could be that the type which has the possessive suffix present has a possessor, while the other does not. As I show below, this does seem to be case in at least Sakha.

As noted above, Kyrgyz has both type NOM-∅ and GEN-POSS<sub>N</sub> RCs. Laszakovits (2019)

<sup>18</sup>In a footnote, although it contradicts the correlation she noted in the paper, Kornfilt (2005) notes that south Siberian Turkic languages such as Altai and Shor have RCs with genitive subjects and no overt agreement, and nominative subjects with overt agreement present, with no illustrative examples. Though I was able to confirm the existence of the latter, I have not been able to find evidence of the existence of the former, in the literature or through fieldwork. But Óttó Kovács (2020) contains one example of a GEN-∅ relative clause in Kazakh.

<sup>19</sup>She notes that languages in which the RC subject can be genitive have certain properties in common: the relatives cannot host CP elements and the RC predicate lacks tense (or a TP layer). The reader is referred to Krause (2001) for further discussion.

demonstrates genitive RC subjects in Kyrgyz are interpreted as possessors, but bare RC subjects are not. To determine whether there is a difference in meaning between NOM-POSS<sub>N</sub> and NOM-∅ RCs, I will go over some of her tests and compare her data from Kyrgyz to Sakha. RC subjects in Sakha always seem to be interpreted as possessors, unlike in Kyrgyz.

Laszakovits (2019) notes that in Kyrgyz, genitive RC subjects are not appropriate when another referent is the actual possessor of the head noun; this contrast is seen in (43a)-(43b):

- (43) a. Sen oku-gan kitep meniki.  
2SG read-PTPL book mine  
'The book you read is mine.'
- b. # Sen-in oku-gan kiteb-ing meniki  
2SG-GEN read-PTPL book-POSS.2SG mine  
'The book you read is mine.'

This contrast does not exist in Sakha; such sentences are inappropriate with both bare and genitive RC subjects. Both options are represented in (44):

- (44) # Julius aqa-tı-(n) sie-bit at-a miene.  
Julius father-POSS.3SG-GEN eat-PTPL horse-POSS.3SG mine  
'The horse that Julius's father ate was mine.'

Laszakovits (2019) also notes that in Kyrgyz, quantificational genitive RC subjects distribute over the head noun, but bare ones do not. As such, the reading in which the genitive scopes out of the relative is inappropriate, though the bare RC subject is acceptable in (45) below:<sup>20</sup>

- (45) Context: everyone's father shares a car.
- a. Ba:rı ayda-gan maşına buzuk.  
everyone drive-PTPL car broken  
'The car that everyone drives is broken.'
- b. # Ba:rı-nın ayda-gan maşına-sı buzuk.  
everyone-GEN drive-PTPL car-POSS.3SG broken  
'The car that everyone drives is broken.'

Unlike Kyrgyz, in Sakha such a context paired with the sentences in (46) is inappropriate regardless of whether or not the RC subject is bare or in the genitive:

- (46) Context: everyone shares a horse to eat.
- a. # Barı aqa-lar-(in) sie-bit at-a kuras.  
everyone father-POSS.3PL-(GEN) eat-PTPL horse-POSS.3SG rotten  
'The horse that everyone's father ate is rotten.'

Spec,PossP might be filled in Sakha after all. Laszakovits had argued for a correlation between possessor interpretation and genitive case in Kyrgyz; this breaks down in Sakha, as the properties that Laszakovits takes as diagnostic for movement to Spec,NP vs. lack of movement don't correlate with genitive case in Sakha. In other words, nominative case possessors are present in Sakha, unlike Kyrgyz, so surface position and case aren't correlated.

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<sup>20</sup>Though I do not provide the sentences here, the opposite is the case in a context such as *everyone has their own car* with the same sentences; the bare RC subject is dispreferred over the genitive one.

To solve this, we can assume that case assignment has no relation to covert movement in LF, which is already what is entailed by Bobaljik (2008). After all, movement to Spec,PossP is purely for thematic purposes; to become a possessor. The RC subject can covertly move to Spec,PossP without needing to receive genitive case. And this is precisely what is needed to describe the theoretical difference between NOM-POSS<sub>N</sub> languages such as Uzbek and Sakha and GEN-POSS<sub>N</sub> languages such as Kyrgyz. The former allow covert movement to Spec,PossP, but the latter do not; perhaps in Kyrgyz, movement to Spec,PossP cannot be covert.

#### 4.4 Theoretical Discussion

Under the functional head model, there is clear evidence that D<sup>0</sup> in certain Turkic languages doesn't always assign genitive case; the RC subject may also be assigned nominative case in certain languages. In addition, this must be sensitive to its environment (RC vs. a simple PS), because in each of these languages where this is possible, the presence of agreement on the head noun entails genitive case-marking on the possessor in simple PSes like *my cat*; even if nominal agreement can appear alongside nominative case on RC subjects.

The configurational approach to case assignment and agreement makes the correct predictions here, given that genitive and nominative are both environment-sensitive unmarked cases, and there is no strict correlation between D<sup>0</sup> and genitive case. Under this approach, if the RC subject bears genitive case, it then agrees with the head noun or the predicate, depending on which Turkic language it is. If the RC subject bears nominative case, it may still agree with the head noun if Poss is present in certain languages. The main difference is that Uzbek, Sakha and Altai seem to allow covert movement to Spec,PossP in which they do not get assigned genitive case and are left bare; but Kyrgyz requires overt movement to Spec,PossP.

Given the more strict relation between D<sup>0</sup> and genitive, and T<sup>0</sup> and nominative under the functional-head model, this is less straightforward for B&V, although possible to account for with some additional machinery, if they assumed similar structures to mine.

In line with B&V, such an account is provided by Gribanova (2019). Gribanova builds a hybrid theory of case assignment based on evidence from Uzbek nominalized clauses, in which D<sup>0</sup> can assign unmarked case, either nominative or genitive, depending on the position of the subject of the nominalized clause. Similar to Uzbek RCs, the subject may optionally receive genitive case or be left bare in nominalized clauses, as in (47):

- (47) Men Hasan(-ning) bu kitob-ni o:qi-gan-(lig-)**i**-ni bil-a-mam.  
 1SG Hasan-GEN DEM book-ACC read-PTPL-(NOML-)POSS.3SG-ACC know-PRES-1SG  
 'I know that Hasan read this book.'

It would go beyond the scope of this paper to discuss her account in further detail, but Gribanova argues that bare subjects in Uzbek nominalized clauses stay in their base-generated position but can still receive unmarked case by agreement from D<sup>0</sup>, which becomes nominative because it is not in a Spec,NP position.<sup>21</sup> On the other hand, if the subject does move to a Spec,NP position, it again receives unmarked case from D<sup>0</sup>, but it becomes genitive instead.

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<sup>21</sup>This differs from my account in which I assume covert movement to a Spec,NP position instead if the subject is left bare. For the purposes of the central thesis of this paper, whether it moves covertly or not at all is not relevant, and it is an open question which account is correct. Gribanova (2019) provides numerous pieces of evidence that the subject that triggers agreement on N does not move in Uzbek.

Our accounts make mostly the same predictions for the data presented in this section. But there are two areas in which the approach here gets the correct empirical results while Gribanova's theory makes the incorrect predictions. Given that genitive case is assigned independently of agreement under the account presented here, the PFGs presented in section 3 poses no problem to the account here. However, given that case assignment is still parasitic on agreement under Gribanova's account, the existence of PFGs under Gribanova's account is not expected.

More importantly, Gribanova's account does not derive default agreement in Turkic RCs. For example, if a partitive NP is the subject of an RC in Kyrgyz, default agreement may be present on the head noun, as in (48) below:<sup>22</sup>

- (48)    ekö-ö-büz-dün    jaz-gan    kiteb-i  
       two-NUM-1PL-GEN wrote-PTPL book-POSS.3SG  
       'the book the two of us wrote'

As I will argue in the next section, the presence of genitive case on the complex RC subject is what causes default agreement to arise; the probe on the head noun cannot agree with the RC subject due to its complex structure and default agreement arises on the probe. It would predict that full agreement must be required for genitive case assignment, contrary to fact.

## 5 Default agreement and partitive NPs

This section presents two novel arguments in favor of the configurational approach to genitive case. I present the phenomenon of Turkic default agreement, providing an analysis for it which has consequences on the timing of case assignment. In 5.1 I present novel data from partitive NPs and default agreement in several Turkic languages. 5.2 provides an analysis of this data based on an updated version of Holmberg (2017)'s analysis, and the structures of partitive NPs and adnominal pronouns. Section 5.3 discusses a seemingly correct prediction this analysis makes: default agreement with inflected reflexives and pronouns. Section 5.4 compares the two theories of case.

### 5.1 Turkic partitive NPs and default agreement

Turkic default agreement, which I have briefly mentioned in the preceding sections, occurs on head nouns with complex possessors like partitive NPs, for example (*biz*) *iki-mız* 'the two of us,' and adnominal pronouns, for example *biz Türkler* 'we Turks.'<sup>23</sup> In the case of adnominal pronouns, the pronoun cannot be dropped, as in (49a). This is perhaps due to competition with the generic plural *Türkler* 'Turks,' which cannot mean *we Turks*; unagreement is not possible.

On the other hand, the partitive NP construction (partitive) does have the possessive suffix on the numeral; this could indicate that there is agreement between the pronoun in the partitive and the numeral. Furthermore, only numerals can be the head noun in the partitive. An example of

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<sup>22</sup>As will be discussed in the next section, Uzbek is the only Turkic language out of the Turkic languages covered here that does not have default agreement, so I am using Kyrgyz to demonstrate the same point.

<sup>23</sup>Default agreement with partitive NPs (but not adnominal pronouns) in Turkish was previously discussed in the unpublished Ince (2008) and Aydin (2008). I have extended this to other Turkic languages, in addition to new data from Turkish default agreement, and a novel account of Turkic default agreement.

the partitive is given in (49b). These examples also show that full agreement is required in simple finite clauses, because the removal of the 1st person verbal agreement *-k* would lead to there being 3rd person agreement on it instead as it is null:

- (49) a. \*(Biz) Türk-ler kazan-dı-\*(k)  
          \*(1PL) Turk-PL won-PST-\*(1PL)  
          ‘We Turks won.’
- b. (Biz) iki-miz kazan-dı-\*(k)  
          (1PL) two-POSS.1PL won-PST-\*(1PL)  
          ‘The two of us won.’

However, the pronoun in the partitive is usually dropped, ex. *iki-miz* ‘the two of us.’ I assume that it is always present but optionally null for two reasons: the  $\phi$ -features on the possessive suffix have to come from somewhere—likely from a null pronoun in the partitive, as Turkish is a famous pro-drop language—and because in any context with a partitive, a pronoun can optionally be pronounced overtly, perhaps for emphasis purposes.

The presence of nominal agreement with a bare pronoun in a partitive is unexpected, given that it would predict the partitive pronoun to have genitive case rather than nominative. A  $\text{Poss}^0$  under Baker’s analysis should assign only genitive case, but we see that it is bare; *\*biz-im iki-miz* is ungrammatical as a partitive NP. This is similar to the type  $\text{NOM-POSS}_N$  and  $\text{NOM-POSS}_V$  RCs that we have discussed in section 4, in which  $\text{Poss}^0$  seems to assign nominative case to RC subjects, under the functional head model.

However, full agreement is never possible with more complex possessors; this leads to default agreement (3SG) on the head noun.<sup>24</sup> This is shown in (50) below.

- (50) a. (Biz) iki-miz-in kedi-si c. Biz Türk-ler-in günah-lar-i  
          (1PL) two-POSS.1PL-GEN cat-POSS.3SG 1PL Turk-PL-GEN sin-PL-POSS.3SG  
          ‘the two of us’s cat’ ‘the sins of us Turks’
- b. \* (Biz) iki-miz-in kedi-miz d. \* Biz Türk-ler-in günah-lar-ımız  
          (1PL) two-POSS.1PL-GEN cat-POSS.1PL 1PL Turk-PL-GEN sin-PL-POSS.1PL  
          ‘the two of us’s cat’ ‘the sins of us Turks’

This is not unique to simple PSes; there are many other contexts in the Turkic languages in which genitive case is assigned. I give examples from several constructions in (51) below; full agreement is impossible in each of these:

- (51) a. İki-miz-in ye-diğ-i döner  
          two-POSS.1PL-GEN eat-FN-POSS.3SG doner  
          ‘the doner the two of us ate’ Relative clause
- b. Zeynep iki-miz-in gel-me-si-ni isti-yor.  
          Zeynep two-1PL-GEN come-INF-3SG-ACC want-PRES  
          ‘Zeynep wants the two of us to come.’ Inflected infinitival clauses
- c. Zeynep iki-miz-in gide-ceğ-i-ni söyle-di.  
          Zeynep two-1PL-GEN go-FUT-POSS.3SG-ACC said-PST  
          ‘Zeynep said the two of us will go.’ Nominalized clauses

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<sup>24</sup>Other possessors also trigger default agreement: inflected reflexives such as *kendi-miz* ‘self-POSS.1PL’ and inflected pronouns such as *siz-ler* ‘you-PL’ also trigger default agreement. I argue that my account predicts default agreement with these nominals, and I provide tentative analyses of these in section 5.3.

We can now consider an independent argument for the opacity of genitive case-marked complex possessors being opaque for agreement. Kornfilt (2003) points out strong evidence in favor of this, based on an asymmetry between argument and adjunct nominalized clauses. She points out that the subjects of factive nominalized clauses must be nominative if the clause is an adjunct, as shown in (52b). If the subject is genitive, as in (52a), it cannot be an adjunct:

- (52) a. Ben [Ali-\*(nin) cam-1 kır-dığ-1 zaman]-1 bil-iyor-du-m.  
     I   Ali-\*(GEN) glass-ACC break-FN-POSS.3SG time-ACC know-PROG-PST-1SG  
     ‘I knew when Ali broke the glass.’
- b. Ben [Ali-(\*nin) cam-1 kır-dığ-1 zaman] gerçeğ-i  
     I   Ali-(\*GEN) glass-ACC break-FN-POSS.3SG time   truth-ACC  
     bil-iyor-du-m.  
     know-PROG-PST-1SG  
     ‘I knew the truth when Ali broke the glass.’

Complex genitive-marked possessors trigger default agreement in (52a); that is, when they are not adjuncts. But in factive nominalized adjuncts, the subject must be nominative; it cannot be genitive-marked, and it triggers full nominal agreement, as shown in (53a). Complex bare-marked possessors in this position show the same pattern as (53a) in (53b), and they never trigger default agreement, as seen in (53c). This indicates that complex possessors, only when marked with the genitive, are opaque to agreement; this is strong evidence for case blocking agreement.

- (53) a. [[Biz-(\*im) yemek pişir-diğ-imiz]-den dolayı] konser-e  
     1PL-(\*GEN) food cook-FN-POSS.1PL-ABL because concert-DAT  
     gid-e-me-di-m.  
     go-ABIL-NEG-PST-1SG  
     ‘Because we cooked, I was unable to go to the concert.’
- b. [[İki-miz-(\*in) yemek pişir-diğ-imiz]-den dolayı] konser-e  
     two-1PL-(\*GEN) food cook-FN-POSS.1PL-ABL because concert-DAT  
     gid-e-me-di-m.  
     go-ABIL-NEG-PST-1SG  
     ‘Because the two of us cooked, I was unable to go to the concert.’
- c. \* [[İki-miz yemek pişir-diğ-in]-den dolayı] konser-e  
     two-1PL food cook-FN-POSS.3SG-ABL because concert-DAT  
     gid-e-me-di-m.  
     go-ABIL-NEG-PST-1SG  
     ‘Because we cooked, I was unable to go to the concert.’

We now move on to discuss the different properties of Turkic default agreement. Aydın (2008) argues that default agreement is always optional in finite clauses, based on his sentence below where the partitive is paired with *sadece* ‘only’:

- (54) Sekiz kişi paintball-a git-miş-ti-k ve sadece iki-miz daha-önce  
     Eight person paintball-DAT go-EV-PST-1PL and only two-1PL before  
     oyna-mış-tı(-k)  
     play-EV-PST-(1PL)  
     ‘Eight of us went to play paintball and only two of us had played before.’

Default agreement is not optional in the much simpler counterpart (49b), so there must be another factor at play. Let us take for granted that some things does block agreement. Rather, the reason default agreement is optional is perhaps because *sadece* projects focus, which is syntactically represented and can also block agreement, similar to case. Indeed, there is evidence that *sadece* can block full agreement even in simple clauses, as shown by the contrast in (55):<sup>25</sup>

- |  |  |
|--|--|
| (55) a. * Iki-miz gel-di.<br>Two-1PL come-PST.3SG<br>'The two of us came.' | b. Sadece iki-miz gel-di.<br>Only two-1PL come-PST.3SG<br>'Only the two of us came.' |
|--|--|

*Bile* ‘even,’ another focus element, can also make default agreement optional in finite clauses:

- |  |
|--|
| (56) Iki-miz bile Boston-a git-ti.<br>two-1PL even Boston-DAT go-PST.3SG<br>'Even the two of us went to Boston.' |
|--|

The presence of *sadece* or *bile* is not necessary; contrastive focus can also block agreement in finite clauses, where the presence of *sadece* is optional in the second clause.

- |   |
|---|
| (57) On kişi Harvard-a başvur-duk, ama iki-miz Harvard-a kabul edil-di.<br>Ten person Harvard-DAT apply-PST, but two-1PL Harvard-DAT accept AUX-PST.3SG.<br>'Ten of us applied to Harvard, but (only) two of us were accepted.' |
|---|

Finally, if focus and case can both separately block agreement, one prediction of this account would be that there could be blocking effects, causing default agreement, even with regular pronouns if they had both focus and case. This prediction may be borne out, as shown in (58), but it was not acceptable to most of the Turkish native speakers consulted. I will propose an analysis of default agreement in section 5.2 which could explain these facts is Focus is a phase head.<sup>26</sup>

- |  |
|--|
| (58) ?? Sadece siz-in gide-ceğ-i-ni söyle-di.<br>Only 2PL-GEN leave-FUT-POSS.3SG-ACC said-PST<br>'He said only you <sub>PL</sub> will go.' |
|--|

Moving onto Sakha, Kyrgyz and Altai, default agreement is surprisingly optional with complex possessors. I provide illustrative examples of this with partitive NPs (59):<sup>27</sup>

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<sup>25</sup>This observation fits with Despić (2011)'s observation on focus projections being binding domains in certain cases. Despic argues that in NP languages, a possessor can c-command out of the subject as diagnosed by binding: [X<sub>i</sub>'s N] ... self<sub>i</sub>; but binding is blocked if the subject has a focus projection: \*[only/even [X<sub>i</sub>'s N]] ... self<sub>i</sub>, which Despic argues shows that *only/even* projects a focus-phrase, which then blocks c-command out.

<sup>26</sup>The optionality of the agreement, however, is something I leave open to future research. It is possible that *sadece* or *bile* can optionally adjoin as an adjunct, or take a DP as a complement, the latter of which would make DP a Spell-Out domain, but the former would not.

<sup>27</sup>The astute reader will notice that, if genitive case is responsible for blocking agreement, then this is evidence for the genitive case being existent in Sakha, contra Johanson (1998) and others who have claimed that the genitive case does not exist unless it follows a third person possessive suffix. In (59b), although the genitive case is null, default agreement is still a possibility, indicating that it is still present to optionally block agreement. This indicates that it is merely syncretic with nominative unless it follows a third person possessive suffix.

- |         |  |    |   |        |
|---------|--|----|---|--------|
| (59) a. | eki-le-bis-ting      biçig-i<br>two-NUM-1PL-GEN book-3SG<br>'the two of us's book' | d. | eki-le-bis-ting      biçig-is<br>two-NUM-1PL-GEN book-1PL<br>'the two of us's book' | Altai  |
| b.      | ikki-em-mit      aqa-ta<br>two-NUM-1PL father-3SG<br>'the two of us's father'      | e. | ikki-em-mit      aqa-bit<br>two-NUM-1PL father-1PL<br>'the two of us's father'      | Sakha  |
| c.      | eköö-büz-dün      kiteb-i<br>two.NUM-1PL-GEN book-3SG<br>'the two of us's book'    | f. | eköö-büz-dün      kiteb-ibiz<br>two.NUM-1PL-GEN book-1PL<br>'the two of us's book'  | Kyrgyz |

This optionality in default agreement carries onto other contexts like relative clauses; examples from Altai, Sakha and Kyrgyz are given in (60a)-(60b), (60c)-(60d) and (60e)-(60f) respectively.

- |         |   |    |   |
|---------|---|----|---|
| (60) a. | ekilebistiñ kçırgan biçig-i<br>'the book the two of us read <sub>3SG</sub> '  | d. | ikkiemmit siebit ap-pít<br>'the horse the two of us ate <sub>1PL</sub> '      |
| b.      | ekilebistiñ kçırgan biçig-is<br>'the book the two of us read <sub>1PL</sub> ' | e. | ekö:büzdün cazgan kiteb-i<br>'the book the two of us read <sub>3SG</sub> '    |
| c.      | ikkiemmit siebit at-a<br>'the horse the two of us ate <sub>3SG</sub> '        | f. | ekö:büzdün cazgan kiteb-ibiz<br>'the book the two of us read <sub>1PL</sub> ' |

However, default agreement is impossible in Uzbek, as shown in (61a)-(61b), and this carries on to the relative clauses in (61c)-(61d):

- |         |  |    |   |
|---------|--|----|---|
| (61) a. | * Ikki-miz-ning kitob-i<br>Two-1PL-GEN book-3SG<br>'the two of us's book'  | c. | * Ikki-miz-ning kör-gan kitob-i<br>Two-1PL-GEN saw-PTPL book-3SG<br>'the book the two of us saw'  |
| b.      | Ikki-miz-ning kitob-imiz<br>Two-1PL-GEN book-1PL<br>'the two of us's book' | d. | Ikki-miz-ning kör-gan kitob-imiz<br>Two-1PL-GEN saw-PTPL book-1PL<br>'the book the two of us saw' |

To recap, the phenomenon of default agreement with complex possessors varies crosslinguistically.<sup>28</sup> I provide a summary of the languages studied and their properties below:

- |         |   |
|---------|---|
| (62) a. | Obligatory default agreement with complex possessors: Turkish, Hungarian, Finnish                                 |
| b.      | Optional default agreement with complex possessors: Kyrgyz, Sakha, Altai (likely Uyghur and Kazakh) <sup>29</sup> |
| c.      | No default agreement with complex possessors: Uzbek   |

I leave expanding this list open to future research.

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<sup>28</sup>Due to space considerations I will omit default agreement in these languages with adnominal pronouns, but the agreement patterns are the same as with partitives in Sakha, Altai, Uzbek and Kyrgyz.

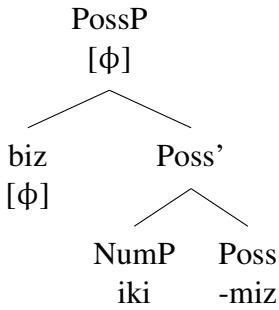
<sup>29</sup>Here I list Uyghur and Kazakh as well despite not presenting data from these languages in the paper; not enough data was obtained to present here, but they seemed to behave in the same way as these other languages.

## 5.2 Analysis

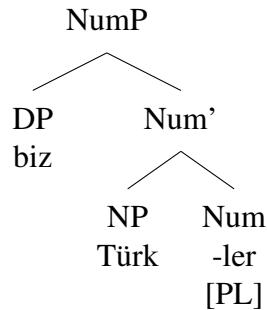
I discuss the structure of partitive NPs. I then derive the obligatory full agreement pattern in Turkic with regular pronouns, and see what blocks agreement with complex possessors. I argue that it can be derived with two ingredients: agreement is parasitic on case and Chomsky (2001)'s weakened version of the Phase Impenetrability Condition (PIC)—along with the phase status of  $K^0$  and either  $D^0$  or  $n^0$ . I will provide two different solutions based on whether one accepts the presence of a D layer or not in the Turkic languages, in line with Bošković (2008), Bošković and Şener (2014) and Despić (2015)'s conclusion, in order to remain agnostic.<sup>30</sup>

First, I propose the pronoun in partitives is in Spec,PossP as it is the source of the non-optimal agreement on the possessive suffix, as in (63). I also propose that the pronoun in APCs is located in Spec,NumP given the plurality of the lexical NP in APCs, as in (64).

(63) Partitive NP



(64) Adnominal pronoun



I concur with Höhn (2019) that the structure of APCs in head-final languages such as Turkish with prenominal APCs differs from that of the structure given in Höhn (2017); the pronoun in APCs is a specifier in Turkish rather than the head, unlike in English where it is the head.<sup>31</sup>

As such, I assume that in both partitives and APs, the pronoun is a specifier. Crucially, it cannot be an adjunct, as this would imply the lack of a possessive suffix, given the existence of PFGs as discussed in section 3. We have seen in section 3.4 that the possessive suffix as a result of default agreement can never be dropped, implying that the pronoun is never an adjunct.

To get the correct facts, I must make one explicit stipulation. As noted prior, the partitive NP construction *biz ikimiz* has a bare pronoun with possessive agreement. In an unmarked theory of genitive case, how can a pronoun be left bare if it is in some Spec position of the nominal? Here I must slightly change the definition of unmarked case in Marantz's hierarchy; it cannot be assigned in Spec position of the extended nominal domain; it can only be assigned in Spec,NP (nP to be more precise). This definition is given as follows:

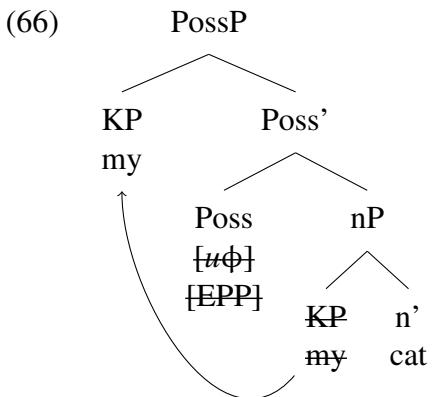
(65) Unmarked genitive case: Case assigned automatically to any NP in a Spec,nP position.

<sup>30</sup>See Türker (2019) in favor of Uzbek having a D layer. She points out that many of the tests in Bošković (2008) to establish whether a D layer is present or not actually fail in Uzbek (ex. left-branch extraction), and all of her tests also apply to Turkish.

<sup>31</sup>If Turkish APCs had the structure of APCs from Höhn (2017), this would be problematic: Höhn (2019) points out that it would imply a disharmony between PPs and VPs and the fact that APs are head-initial. He also points out that, if adpositions are part of the extended nominal projection, we should expect the Final-Over-Final condition given in Sheehan et al. (2017) to rule out head-final PPs with head-initial DPs, or in another other words prenominal APs, as their complements.

This is a pure stipulation, and it would be preferable to eliminate it if possible. If the partitive contained functional projections that were not necessarily nominal in some sense—perhaps even an invisible partitive projection that is verbal—then this stipulation would not be needed. But given the lack of knowledge of Turkic partitive NPs, I must leave this open to future research.

We can now move onto default agreement. I take for granted that possessive structures have the same basic structure as in Cardinaletti (1998), Delsing (1998), Alexiadou et al. (2007), and Holmberg (2017), among others, who argue that Poss is present as a functional projection containing the possessor in its specifier, as in (66). In line with Alexiadou et al. (2007) and Holmberg (2017), we can also assume that the possessor is base-generated in a Spec,nP position and moves up to PossP, as I schematize in (66). Genitive case has been assigned to the possessor in Spec,nP, in line with the configurational theory of case, since there is no competitor in the domain:



Let us derive agreement in a simple PS such as *bizim kedimiz* ‘our cat.’ K itself does not inherit the  $\phi$ -features on DP, in line with Ackema and Neeleman (2018) who make the same point based on independent reasons. As Holmberg (2017) also points out, this assumption is required to block agreement with quirky case-marked nominals in Icelandic. Finally, note that there are two Spell-Out domains, which I have circled in (68). For Bošković (2011) and Despić (2015), among others, the phase head is merely the highest head in the nominal domain; K if there is no DP and D if there is no K. However, for this account to go through, I must assume that K and D are both phases, rather than just one being the phase, as is commonly assumed.<sup>32</sup>

As a result, the two Spell-Out domains are DP and PossP. However, only one of these Spell-Out domains is impenetrable, in line with Chomsky (2001)'s weakened PIC, defined below:<sup>33</sup>

- (67) *Phase Impenetrability Condition (weak):*

In phase A with head H, the domain of H is accessible to operations outside A only until the next (strong) phase head is merged.

When K is merged, only NumP then becomes inaccessible to further operations. But the head of the regular pronoun, D, has already inherited the number features from NumP via agreement. The

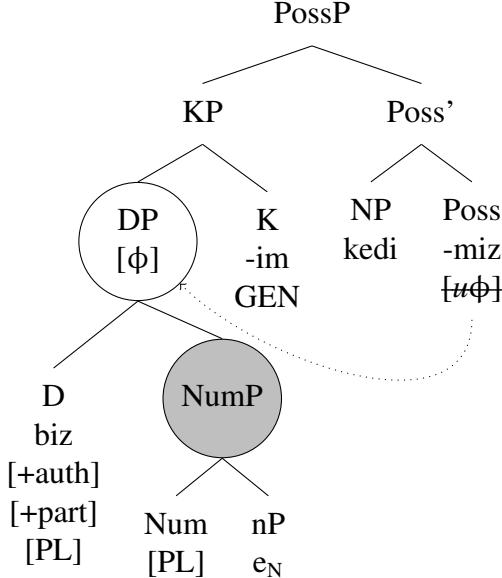
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<sup>32</sup> Assuming the weakened PIC, the double phase configuration may actually be empirically advantageous; as far as I am aware existing works have assumed the stronger version of the PIC for which one phase is enough. The double phase configuration would be able to derive the same facts with the weakened PIC.

<sup>33</sup>Asarina and Hartman (2011) argue for independent reasons that the weakened PIC should be preferred over Chomsky (1998)'s stronger condition, showing that Uyghur genitive subject licensing in subordinate clauses would violate the stronger version of the PIC, but not the weakened one.

Poss probe agrees with its goal, DP; though DP is the Spell-Out domain of K, Poss itself is not a phase head, and it is therefore in its search domain. This structure is given in (68), in which the penetrable Spell-Out domain is circled but not gray, and the impenetrable is circled with gray:

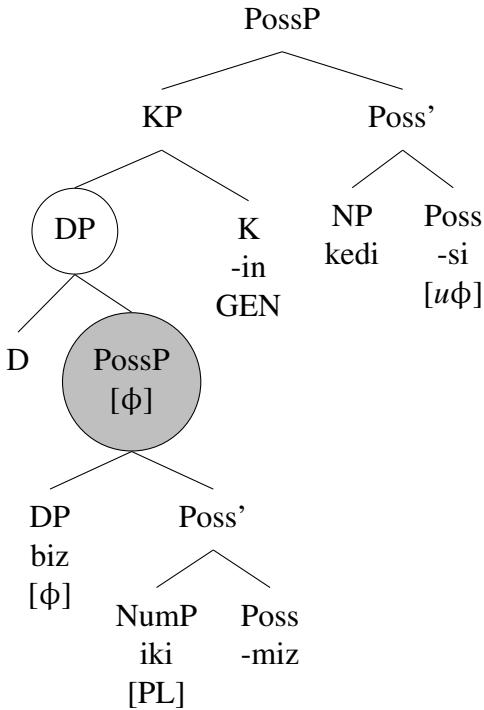
- (68) Derivation of a generic possessive construction, ex. ‘bizim kedi-miz’



The derivation of default agreement is slightly different, but it follows immediately if we assume a weakened version of the PIC. If the AP and the pronoun in the partitive are both unable to move to Spec,DP, then they would be outside of the search space of the outer Poss probe.<sup>34</sup> Agreement with a regular pronoun was possible because the DP itself had ϕ-features to agree with. However, in both the partitive and AP construction, the bearer of ϕ-features has been Spelled-Out; the features do not pass on to DP, or whatever the maximal projection is. As a result, agreement is attempted, but it fails, triggering default agreement in the Preminger sense rather than the derivation crashing. This tree is shown in (69); the Spelled-Out domain is in gray:

<sup>34</sup>I will claim later in the paper that it *is* possible for them to move, but an assumption I must make is that they cannot do so in Turkish, in order to derive default agreement. They can obligatorily move in Uzbek, and optionally in the other Turkic languages. This might simply due to a lack of a phase-edge feature on D in Turkish, but it is optionally present in the Turkic languages where default agreement is optional, and obligatory in Uzbek.

- (69) Derivation of a partitive NP, ex. (*biz*) *ikimizin kedi-si*



In the tree above, notice that though NumP clearly has [PL] features and PossP has the  $\phi$ -features from the pronoun (via agreement), none of these features have percolated up to D, otherwise full agreement would be obtained. In the case of NumP, [PL] does not percolate as D does not agree with NumP, unlike a regular pronoun construction. On the other hand, D also does not obtain the features of its complement, PossP, despite Agree being an operation which copies  $\phi$ -features.

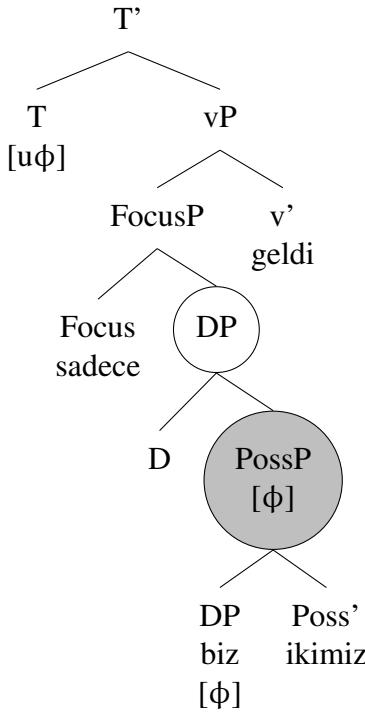
PossP's features do not percolate to D. This can be shown: when PSes with 1st person possessors agree with the matrix verb in Turkish, there is 3rd person singular agreement on the verb. The D that heads *benim kedi-m* ‘my cat’ does not get the  $\phi$ -features from the bolded possessive suffix; if it were able to, then 1SG agreement would be possible in (70b), contrary to fact:

- (70) a. Benim kedim geldi.  
      ‘My cat came.’
- b. \* Benim kedim geldi-**m**.  
      ‘My cat came.’

One potential problem could be that my account could accidentally derive full agreement in (70b), via agreement with the embedded 1SG pronoun because the PS is nominative, which does not project a KP layer to help block agreement. But the pronoun itself has genitive case, and *benim kedim* ‘my cat’ is itself a DP, so agreement with the embedded pronoun is blocked.

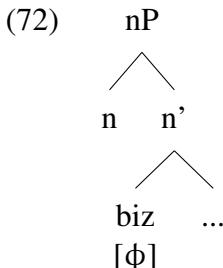
Full agreement in finite clauses can be derived with the weakened version of the PIC. The phase head K is not present if, as I have assumed throughout this paper, nominative case is caselessness, and it does not project a KP layer;  $T^0$  itself is not a phase head, as Citko (2014) shows, and it can therefore agree with the caseless matrix subject. In addition, the data from section 5.1 involving default agreement in finite clauses with *only* can also be derived if Focus $^0$  is a phase head, and we have seen independent evidence for this conclusion:

(71) Derivation of default agreement with FocusP, ((55b))



As noted above, I have left open the question of why this agreement is optional; it is possible that there are two different ways for *sadece* to adjoin, one of which is with a phase head and the other is an adjunct, and default agreement reflects the former while full agreement reflects the latter.

These derivations rely on the assumption that DP is the maximal projection of the nominal phrase in Turkish; it would be preferable to eliminate it. If there were another phase head in the nominal layer, this would be straightforward. One way of doing so might be to assume that the pronoun bearing  $\phi$ -features is base-generated deeper inside the nominal and stays there. Since Embick and Marantz (2007) the categorizing head  $n^0$  has usually been considered to be a phase, and this would get the same results as the DP layer. However, one must assume that the pronoun is not at the edge of the nP phase, and deeper inside, so that it is not accessible to probing. I provide an illustrative tree in (72) below:



This account successfully derives default agreement in Turkish.<sup>35</sup> What remains is how to derive the optionality of default agreement in most other Turkic languages, and outright ban of default agreement in Uzbek. It could be that one of the Spell-Out domains in the nominal domain

<sup>35</sup> And Finnish and Hungarian, as pointed out in section 2.3.

in Uzbek is not relevant for the purposes of agreement, and that this Spell-Out domain optionally blocks agreement in the other Turkic languages. However, I cannot eliminate the stipulatory nature of this proposal, and I leave this to future research.

### 5.3 Reflexives and inflected pronouns

In footnote 24, I briefly mentioned that adnominal pronouns and partitive NPs are not the only nominals to trigger default agreement: inflected reflexives such as *kendi-miz* ‘self-POSS.1PL’ and inflected pronouns such as *sız-ler* ‘you-PL’ also trigger default agreement. It’s not obvious, at first glance, how this might be accounted for under the approach provided here.

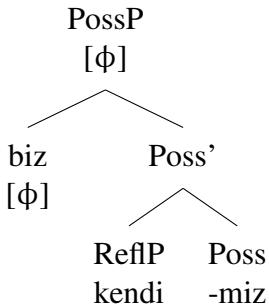
- (73) a. (biz) kendi-miz-in kedi-si b. Sız-ler-in kedi-si  
          (1PL) self-POSS.1PL-GEN cat-POSS.3SG      2PL-PL-GEN cat-POSS.3SG  
          ‘his/her cat’   ‘you people’s cat’ (lit.)

Further discussion on default agreement with inflected reflexives is provided by Paparounas and Akkuş (2020), which independently comes to the same conclusion: genitive case assignment blocks agreement with more complex nominals but not pronouns. Based on this, they raise issues for approaches which reduce reflexive binding to the operation Agree.<sup>36</sup> More relevantly, Paparounas and Akkuş (2020) provides several comments on an earlier draft of this paper, in which they criticize my account for not covering the full range of facts.

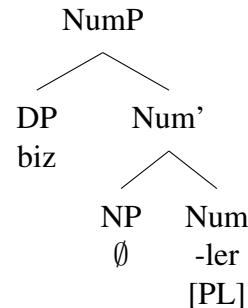
As a matter of fact, the approach provided here—in which default agreement is triggered in complex nominals due to an additional phase within their structure—straightforwardly predicts default agreement with inflected reflexives and pronouns. Kornfilt (2000) analyzes inflected reflexives as having a null pronoun subject which is the source of agreement on the reflexive. This is precisely the same structure I have given for partitive NPs in (63). In addition, just like partitive NPs, it is sometimes possible to make this pronoun overt for emphasis, though very marginal.

For inflected pronouns, the situation is not so clear. It does not seem possible for inflected pronouns to be used in contexts referring to animals or inanimate objects; *sızler* referring to cats or rocks is ruled as inappropriate. Given that inflected pronouns are similar to APCs in that they also bear plural marking, we might stipulate that these have an identical structure, in which the only difference is that the noun is null, meaning something like *people*. The structure of the inflected reflexive and pronoun are given in (74)-(75) respectively.

(74) Inflected reflexive



(75) Inflected pronoun



<sup>36</sup>For further discussion, the reader is referred to Paparounas and Akkuş (2020).

Paparounas and Akkuş (2020) raises a few other issues, though as they point out, the above problems are the most pressing. For example, it may be problematic that the account presented in this paper makes very specific assumptions on the nature of case assignment and timing of case assignment relative to agreement. But the latter is not an assumption—indeed, this paper is dedicated to arguing, rather than assuming, that the timing of case assignment precedes that of agreement—and they make precisely the same claim.

Although I do assume the presence of a KP node in the syntax for case assignment, this is not a necessary assumption. Recall that the main goal of this paper is to argue that case assignment precedes agreement. As long as some theoretical tool is present to block agreement with genitive case-marked complex nominals, all of the empirical arguments in this paper still go through; the configurational theory of case is better able to predict the facts genitive case and agreement asymmetries seen in Turkic. The phase-based approach here is just one way of deriving default agreement in the narrow syntax: one which seems to make the correct predictions.

## 5.4 Theoretical Discussion

I have already provided an account of Turkic default agreement under the configurational case theory and Bobaljik’s framework that agreement is parasitic on case. The question that remains is whether the agreement approach is able to derive Turkic default agreement, as well. There are two reasons the agreement approach seems unable to account for the facts seen here, and not just due to default agreement.

The lack of genitive case on the pronoun in partitives such as *biz iki-mız* ‘the two of us’ is unpredicted if case assignment is parasitic on agreement, given that nominal agreement bearing the  $\phi$ -features of the pronoun is present on the numeral ‘two,’ and it has not assigned genitive case to the pronoun. The presence of nominative case on the partitive pronoun would not be possible to derive without further assumptions about environment-sensitive case assignment, in a similar manner to Gribanova (2019)’s; perhaps an invisible verbal shell is present in the larger structure of the partitive.

More importantly, if genitive case really is responsible for blocking agreement, then it is unclear how the functional head model could derive this fact if genitive case truly is parasitic on nominal agreement. My analysis relies on the presence of a KP layer, put on the possessor via configurational case assignment, blocking agreement in possessive structures; it happens prior to agreement, and is not parasitic on agreement. By contrast, there is nothing to block agreement under B&V’s account of genitive case assignment.

One potential solution can be found by changing the nature of the operation Agree, which is responsible for agreement. Arregi and Nevins (2012), among others, splits the operation of Agree into two sub-operations, Agree-Link and Agree-Copy. Agree-Link is responsible for matching the probe with its goal, and Agree-Copy may copy features between the two Agree-Linked objects. Agree-Copy can happen either within the narrow syntax or postsyntactically, but Agree-Link can only happen in the former.

Suppose that difference between default and full agreement is syntactic vs. semantic agreement; one can argue that the kind of agreement in Turkic finite clauses is semantic and not syntactic, but it must be syntactic in possessive structures. This might be due to the presence of the KP layer on the possessor. One such account is provided by Smith (2015), who attempts to derive

the difference in plural agreement between American and British English; semantic agreement is possible in British English but not American (ex. *the committee are here*).

This account could also provide an account of default agreement based on this framework, if we stipulate that Agree-Link is responsible for assigning genitive case, but Agree-Copy, which happens later in the derivation, does not, and KP blocks Agree-Copy from copying semantic features; it resorts to copying syntactic features instead.

Apart from the other three asymmetries noted in this paper, this account makes one very important incorrect prediction, concerning polite pronouns in Turkic. Polite pronouns are syntactically plural but semantically singular. If agreement in Turkish finite clauses was semantic, we would expect agreement with polite pronouns to be semantic, which is contrary to fact; it is obligatorily syntactic in both finite clauses and possessive structures, as shown below:

- |   |   |
|---|---|
| (76) a. Siz geldi-niz.<br>2PL came-POSS.2PL<br>'You <sub>sg</sub> came.' (polite) | b. Siz-in kedi-niz<br>2PL-GEN cat-POSS.2PL<br>'Your <sub>sg</sub> cat' (polite) |
|---|---|

One further prediction this account would have to make is that agreement in Uzbek is always semantic; since as noted prior in this section, full agreement is always required in Uzbek. But similarly to Turkish, Uzbek always has syntactic agreement with polite pronouns, and never semantic:

- |  |  |
|--|--|
| (77) a. Siz keldin-giz.<br>2PL came-POSS.2PL<br>'You <sub>sg</sub> came.' (polite) | b. Siz-ning kitob-ingiz<br>2PL-GEN book-POSS.2PL<br>'Your <sub>sg</sub> book' (polite) |
|--|--|

To recap, the argument that case blocks agreement with complex possessors in Turkish seems to be correct; it is not clear how a functional head model where case is parasitic on agreement can derive this.

## 6 Conclusion

This paper has argued that the configurational theory of case can correctly derive four instances of genitive case and agreement asymmetries in the Turkic languages. I have argued that if case assignment is parasitic on agreement, it makes the wrong predictions in these instances. First, the existence of possessive-free genitives is predicted by the configurational theory of case, given that it is environment-sensitive. Second, relative clauses in many Turkic languages show nominal agreement with nominative subjects. Third, the lack of genitive case on partitive and adnominal pronouns in partitive constructions and APCs, which have nominal agreement, is unpredicted. Finally, deriving the existence of Turkic default agreement is done straightforwardly if, as the empirical evidence suggests, case is responsible for blocking agreement; as in languages such as Hungarian where dative case-marked complex possessors also trigger default agreement. This indicates that case assignment takes place prior to agreement, rather than the other way around.

If case is assigned configurationally and drives agreement, these empirical facts are much more readily predicted and derived. I leave the question of whether there are other agreement and case asymmetries in Turkic open to future research. At the very least, this paper provides a great deal of novel data to an ongoing debate concerning the relationship between case assignment and agreement.

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