

# Two Modalities of Case Assignment: Case in Sakha\*

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*Abstract:* Two competing ideas about how morphological case is assigned exist in the recent generative literature: the standard Chomskian view that case is assigned by designated functional heads to the closest NP, and an alternative view in which case is assigned to one NP if there is a second NP in the same local domain (Marantz 1991). We argue that these two approaches to case theory are complementary, based on data from the Turkic language Sakha. Accusative case and dative case in this language are assigned by Marantz-style configurational rules that do not refer directly to functional categories, as shown by evidence from passives, agentive nominalizations, subject raising, possessor raising, and case assignment in PPs. In contrast, nominative and genitive are assigned by functional heads in the Chomskian way, as shown by the relationship between case marking and agreement in Sakha. The two distinct methods of case assignment can thus coexist peacefully, even in the grammar of a single language.

## **1. Introduction**

In the generative syntax literature, there are two major ideas about how morphological case markers come to be associated with individual noun phrases in ways that reflect aspects of the syntactic structures those noun phrases appear in.

The more widely-adopted idea is that structural case features are assigned to NPs by nearby functional heads. For example, nominative case might be assigned by (finite) T to the nearest NP that T c-commands. Similarly, accusative case might be assigned by

(active, transitive) v to the nearest NP it c-commands, genitive case might be assigned by (possessive) D to the nearest NP, and dative case might be assigned by (certain) Ps. This is the view of Chomsky (2000, 2001) and his followers within the Minimalist Program. It is the result of a fairly direct (although complex) line of development from the first Chomskian ideas about case assignment, presented in Chomsky 1981. This is the “governing” view, usually adopted by generative researchers when their interests touch on case theory. See also Legate 2008 for a recent defense of this approach.

There is however an “official opposition” to this view, which has won a few seats in the parliament of generative theory. This is the idea that case is assigned to noun phrases on a configurational basis. More specifically, what case an NP has typically depends in this view on whether there are other nominals (“case competitors”) in the same local domain or not. For example, accusative case might be assigned to the lower of two NPs in a clause, whereas (in another language) ergative case is assigned to the higher of two NPs in a clause. If there is only one NP in the clause, a different case might be assigned—the unmarked case, nominative or absolutive. In this sort of theory, functional heads play no direct role in case assignment, although they might play an indirect role in helping to define the relevant domains. (The notion “same clause” might be defined in terms of the projections of a designated functional head such as T, for example.) The first and purest proposal of this sort is by Marantz (1991). Bittner and Hale’s (1996) rather intricate case theory also has this core idea as an important part of its inspiration. Marantz’s conception has also been adopted in work by Bobaljik (2008), and it is reasserted and developed at length by McFadden (2004), among others. It thus has some popularity among linguists for whom Case theory is a primary object of study.

These two different conceptions of how morphological case is assigned have been conceived of as rivals, with each aspiring to account for all (structural) case phenomena in its own way. But it is possible that they are in fact complementary. That would be true if it could be shown that some cases are assigned by functional heads in Chomsky’s way, whereas other cases are assigned by configurational algorithms in Marantz’s way. The goal of this paper is to argue in favor of this mixed view, with two modalities of case assignment coexisting side by side, not only in Universal Grammar, but even internal to a single language. We do this by offering a rather detailed analysis of case assignment in the Sakha language (also called Yakut), a Turkic language spoken in Northern Siberia.

Sakha has four distinct cases that we take to be structural: nominative, accusative, dative, and genitive. Some very ordinary examples are shown in (1).

- (1) a. Min kel-li-m.  
 I.NOM come-PAST-1sS  
 ‘I came.’
- b. Masha aqa-ta yt-y kör-dö.  
 Masha(GEN) father-3sP dog-ACC see-PAST.3sS  
 ‘Masha’s father saw the dog.’
- c. Masha Misha-qa at-y bier-de  
 Masha Misha-DAT horse-ACC give-PAST.3sS  
 ‘Masha gave Misha a horse.’

Our claim is that this four-case system divides neatly in half. Accusative case and dative case are assigned by the configurational rules stated in (2).<sup>1</sup>

- (2) a. If there are two projections of distinct Ns in the same VP-phase such that

N(P)1 c-commands N(P)2, then value any case feature of N(P)1 as dative.

- b. If there are two projections of distinct Ns in the same phase such that N(P)1 c-commands N(P)2, then value any case feature of N(P)2 as accusative.

These rules are Marantzian in that what is crucial for the assignment of case to a given nominal is whether or not there is a second nominal in the same domain, and if so what structural configuration holds between the two nominals. No direct role is attributed to functional categories. In contrast, we claim that functional categories are integrally involved in the assignment of nominative and genitive case, as expressed in (3).

- (3) If a functional head  $F \in \{T, D\}$  has unvalued phi-features and N(P) has an unvalued case feature [and certain locality conditions hold], then the phi-features of N(P) are assigned to F and the case of F (Nom or Gen) is assigned to N(P).

This is the view of case assignment that is put forward in Chomsky (2000, 2001) in his theory of the Agree relation. If we are right, then, the distinctive elements of two prior theories are combined within the grammar of a single language.<sup>2</sup>

There is a clear superficial difference between the two types of case in Sakha that gives this position some a priori plausibility. The Chomskian approach is designed to capture the intuition that case and agreement are two visible consequences of the same abstract linguistic relationship (Agree), which holds between a functional head and a nearby noun phrase. For nominative and genitive case, the idea that case and agreement are intimately related in this way is attractively transparent in Sakha: having a nominative NP in a clause goes along with having subject agreement on the finite verb (see (1a-c)), and having a genitive NP in a DP goes along with having possessive agreement on the noun ((1b)). This is built into (3). But there is no comparable object agreement to indicate

a relationship between an NP with accusative or dative case and any particular functional head in Sakha. This makes it not implausible that accusative and dative case are assigned in a different way from nominative and genitive, a way that does not depend on functional heads. We present morphosyntactic arguments that this is correct.

We develop our argument as follows. First we provide some empirical background and theoretical assumptions in section 2. We then concentrate on the rules that assign accusative and dative case in (2), showing a range of phenomena that they account for and pointing out why these configurational rules are more satisfactory than the Chomskian alternative (section 3). This exploration starts with simple transitive and ditransitive constructions, proceeds through causatives, anticausatives, passives, and nominalizations, and ends with some complex data from a set of raising constructions. We then ask whether case assignment in Sakha is entirely configurational, arguing that the answer is no (section 4). Although it is not hard to give a Marantzian account of nominative and genitive case assignment in isolation, such a view would not explain the interaction between case and agreement that is found in Sakha. In particular, (3) captures the broad generalization that it is never possible for two functional heads to agree with the same nominal in Sakha, whereas Marantzian alternatives do not. We thus conclude that there are two modes of case assignment coexisting peacefully in Sakha.

Throughout this paper, we keep the attention entirely on Sakha, making no explicit claims about how case is assigned in other languages. Sakha itself is enough, we claim, to provide an existence proof that both kinds of case assignment are allowed by Universal Grammar. This knowledge can then form the basis (we hope) for more comparative and typologically-oriented studies, which seek to learn about how these two

kinds of case assignment are distributed across languages. Case has already been the subject of some rather wide-ranging studies; hence we think that new detailed language-particular studies are what is most needed to advance understanding in this area.

## **2. Empirical and theoretical background**

Sakha is a head-final language with agglutinative morphology, fairly free word order, and extensive consonant and vowel harmony. In these respects, it is not unlike its relative, Turkish. Much information about this language can be gleaned from Vinokurova 2005, which we build on and follow in many particulars, especially her work on accusative case. See also Krueger 1962 and Stachowski and Menz 1988 for some basic information.

### 2.1 The morphology of case in Sakha

The accusative and dative cases have relatively straightforward morphological exponents in Sakha, although both have many surface allomorphs as a result of phonological processes. Accusative case is generally /I/ after a consonant and /nI/ after a vowel, the high vowel harmonizing with the vowels of the stem in backness and roundness, as in Turkish. Dative is marked by /kA/, the nonhigh vowel undergoing harmony and the consonant also subject to phonological changes. As in many languages, NPs in nominative case are morphologically unmarked, with no overt affix. We assume that these NPs are nevertheless assigned case in the syntax, an assumption that we justify in what follows, especially in section 4.

Genitive case raises some special morphological issues. All other Turkic languages have a robust genitive case suffix (e.g., *-(n)In* in Turkish), but this affix has largely been lost in Sakha (Stachowski and Menz 1998:421). As a result, an NP with genitive case is indistinguishable on the surface from an NP with nominative case in most

environments (compare genitive *Masha* in (1b) with nominative *Masha* in (1c)). But there is one important exception. Case markers in many Turkic languages have special allomorphs when they follow (third person) possessive agreement markers (Stachowski and Menz 1998:422). This is true for Sakha as well; for example, accusative is realized as /n/ after a possessive suffix, and dative is realized as /qAr/. Nominative is realized as /Ø/ even after the possessive suffix (see (1b)). But genitive is not; after a third person possessive suffix, the genitive is (like the accusative) realized as /n/ (Krueger 1962:77). In this context, then, genitive can be seen to be different from nominative in Sakha:

- (4) Masha-(Ø) aqa-ty-n            at-a            (compare: aqa-(Ø)            at-a)
- Masha-GEN father-3sP-GEN horse-3sP                            father-GEN horse-3sP
- ‘Masha’s father’s horse’    ‘the father’s horse’

We thus assume that genitive still exists as a distinct value of the case feature in Sakha syntax. Its allomorphy can be accounted for within a Distributed Morphology-like framework (Halle and Marantz 1993) by positing a morphological rule that spells out genitive case as /n/ after a third person possessive suffix, and as /Ø/ elsewhere. Other, more theory internal reasons for saying that genitive case still exists in Sakha can be seen in the coherence of the account that this allows us to construct in section 4.

Sakha also has several inherent cases, including ablative, instrumental, comitative, and so on. These are related to particular semantic roles, and do not participate in syntactic alternations. Like most other investigators into Case theory, we assume that this is a different phenomenon, and do not include it in our analysis. More specifically, we tentatively follow McFadden (2004) in assuming that the inherent case markers are either postpositions themselves, or they are special cases assigned by various

null postpositions. Some instances of dative case in Sakha also fall into this category, including dative on location- and time-denoting expressions (see note 9). (These bear locative case in other Turkic languages, but this case was also lost in Sakha.)

## 2.2 The syntactic status of case in Sakha

There is some difference of opinion in the literature about whether case is to be thought of primarily as a feature value that is assigned to an NP (Chomsky 2001) or if it has the status of a functional head (K) in its own right (Lamontagne and Travis 1987, Bittner and Hale 1996). Both views have attractive properties, and we therefore combine them, assuming that case in Sakha can be *both* a feature and a category.

The feature-like nature of case is most evident in the fact that its value is determined by its syntactic context. Case differs in this respect from most syntactic heads, whose content is determined by free lexical selection. We therefore assume that all nominals that are merged into argument positions in Sakha must be inserted along with an unvalued case feature (e.g., [*at* ‘horse’ Case: \_\_\_]).<sup>3</sup> This feature is assigned a value by one of the rules in (2) or by an application of (3), resulting in a representation like [*at* Case: ACC] or [*at* Case: GEN]. Each NP with a case feature must have exactly one value for that feature at the end of the derivation. If a given nominal satisfies none of the rules in (2) or (3), then its case feature remains unvalued, resulting in ungrammaticality (the Case Filter). If an NP satisfies more than one of the rules in (2) or (3), then the feature value that is assigned second can sometimes overwrite the feature value that was assigned first, but the NP still has only one case (see sections 3.5 and 3.6 for examples). Despite their differences, (2) and (3) belong to the same system of structural case in sense that either one by itself is enough to satisfy the case needs of an

argumental NP. They are also the similar in that either one can bleed a subsequent application of case assignment under some circumstances, as we see in section 4. These dynamics are well-captured by treating case as a feature of NPs.

At the same time, Sakha is the sort of language for which it is very natural to treat some case markers as functional heads. In particular, the overt case markers –kA and –(n)I are like functional heads in that they appear only once in a noun phrase, at the right edge of the nominal, just where one would expect a functional head to appear in a head-final language. Thus, case marking does not appear on adjectives and demonstratives in Sakha by virtue of concord with the head noun, the way it does in many IE languages; rather, case marking appears on an adjective if and only if the head noun is null:

- (5) a. Masha xara-(\*ny) at-y kör-dö.  
 Masha black-(\*ACC) horse-ACC see-PAST.3sS  
 ‘Masha saw the black horse.’ [KP [NP Adj Noun ] ACC]
- b. Masha xara-ny kör-dö.  
 Masha big-ACC see-PAST.3sS  
 ‘Masha saw the black one.’ [KP [NP Adj Ø ] ACC]

In this way, Sakha is like Japanese, Basque, Quechua, and other languages in which case has been analyzed as a functional head, rather than as a feature involved in concord.

We capture the dual nature of case in Sakha by claiming that as soon as an NP receives an accusative or dative feature by (2), that feature “fissions” off to become a structure-projecting category in its own right. We thus propose derivations like (6).

- (6) [ NP[case\_\_] ... NP[case\_\_] Verb ] → (by (2b))  
 [ NP[case\_\_] ... NP[case:ACC] Verb ] →

[ NP[case\_\_] ... [KP NP ACC] Verb ]

In contrast, nominative and genitive case are not systematically realized as an NP-final particle in Sakha. Hence, we assume that they do not fission off into KPs in this way, but remain as features on the noun phrase, to be spelled out morphologically at PF (if at all).<sup>4</sup>

This structure-building treatment of case is a blatant violation of Chomsky's Inclusiveness condition. Nevertheless, it has a good deal of precedent in the generative literature. It is equivalent to a traditional view of genitive case assignment in English noun phrases such as *the destruction of the city*. In Chomsky 1986 and related work, it is assumed that the DP *the city* is assigned genitive case by the nominalization *destruction* (compare *the city's destruction*, where there is no *of*), and this genitive case is "spelled out" in the form of the preposition *of*. Now there is every reason to think that this "spelling out" creates a bona fide PP structure in the syntax. Evidence for this is the fact that the genitive-marked NP can undergo *wh*-movement in English, stranding *of*, whereas the equivalent in Romance languages (*de*) must be pied-piped with the *wh*-phrase:

- (7) a. Which soldier did you witness the capture of –  
b. ??Of which soldier did you witness the capture -- ? (not colloquial)
- (8) a. il soldato di cui annunceranno la cattura (Giorgi and Longobardi 1991:60)  
the soldier of whom they-will-announce the capture (Italian)  
b. \*il soldato que annunceranno la cattura di --  
the soldier that they-will-announce the capture of

In this respect, *of* and *de* have the syntax of ordinary Ps in their respective languages: (7) has *of*-stranding, because *of* is a P and Ps are normally stranded in colloquial English; (8) has pied piping of *de*, because *de* is a P and Ps must be pied piped along with *wh*-phrases

in Italian. So *of* and *de* are realizations of genitive case assignment, but they also count as full-fledged PPs and interact with other syntactic processes as such. Our claim is that essentially the same thing happens with accusative and dative case in Sakha.

This somewhat nonstandard assumption will permit several simplifications of the case system in Sakha. For example, it can be used to explain why dative case assignment in accordance with (2a) bleeds the assignment of accusative case by (2b); see the discussion of (13a)/(14a) in the next section. This assumption is also useful in explaining why accusative and dative case marking are indelible, whereas nominative and genitive case marking are not; see the discussion of (16) in the next section. We do not insist on this particular way of handling case realization, and do not consider it the primary focus of our paper. But we adopt it for concreteness and expository convenience, it being (at least) the clearest way we know to capture certain details of the Sakha case system.

### **3. The configurational case marking of objects**

We begin our systematic exposition by demonstrating the virtues of the configurational rules for the assignment of dative and accusative case given in (2). Our discussion moves from relatively simple data, for which Sakha is like many other languages, to more complex and surprising data, where the advantages of (2) can be seen most clearly.

#### 3.1 Simple active sentences

It comes as no surprise that the objects of simple active dyadic predicates in Sakha are marked in accusative case, simple triadic predicates have one object in accusative case and one object in dative case, and the subjects of most predicates bear neither accusative nor dative. (1) presented some examples; (9) gives another set.

(9) a. Min ülel-ii-bin.

I.NOM work-AOR-1sS

‘I worked.’

- b. Erel kinige-ni atyylas-ta.

Erel book-ACC buy-PAST.3sS

‘Erel bought the book.’

- c. Masha aqa-ty-gar surug-u yyt-ta.

Masha father-3sP-DAT letter-ACC send-PAST.3sS

‘Masha sent her father a letter.’

And, not surprisingly, these simple patterns follow from our rules in (2). In sentences like (9c) there are two NPs inside the VP. Therefore the structurally higher one—the goal argument—is marked dative by (2a).<sup>5</sup> In sentences like (9b) there is only one NP in the VP domain, the subject being generated outside VP in Spec, vP. Therefore, (2a) does not apply. The clause as a whole does contain more than one NP, however. Hence (2b) applies on the CP phase, marking the lower NP (the direct object) as accusative.

A detail of the rules in (2) helps to account for a somewhat less trivial property of case marking in Sakha. Like Turkish (Enç 1991) and various other languages (Aissen 2003 and references cited there), Sakha is a *differential object marking* language—one in which not all direct objects bear case marking. The accusative case marker *-(n)I* only appears on NPs that receive a definite or specific interpretation; when the thematic object is indefinite, then it bears no case suffix, as shown in (10) (Vinokurova 2005:322).

- (10) a. Erel kinige atyylas-ta.

Erel book buy-PAST.3sS

‘Erel bought a book/books.’

- b. Min      saharxaj    sibekki-(ni)    ürgee-ti-m.  
 I.NOM    yellow      flower-(ACC) buy-PAST-1sS  
 ‘I picked (the/a certain) yellow flower(s).’

A way of capturing this phenomenon emerges from (2), if we assume that the locality domains in which case competition is evaluated are crucially phases in something like Chomsky’s sense. There are two phases in an ordinary clause, CP and (let us assume) VP.<sup>6</sup> The indefinite object stays strictly inside the VP phase, and so is never in the same domain as the subject, whose lowest position is Spec, vP. Since the object and the subject are the only NPs in their respective domains, neither is case-marked by the rules in (2) (see (11a)). In contrast, definite and specific objects undergo object shift, out of VP, to escape the domain of existential closure (Diesing 1992 and much related work). This movement places the object in the same phase as the subject. The two now count as case competitors, and accusative is assigned to the lower NP, the object ((11b)). (Notice that it does not matter here whether the subject moves to Spec, TP or not.)

- (11) a. 

[[ <sub>VP</sub> Erel	<table style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;">[<sub>VP</sub> book buy ]</td><td style="padding: 5px;">v ]</td><td style="padding: 5px;">T ]</td></tr><tr><td style="padding: 5px;">phase 1</td><td></td><td style="padding: 5px;">phase 2</td></tr></table>	[ <sub>VP</sub> book buy ]	v ]	T ]	phase 1		phase 2	(=(10a))
[ <sub>VP</sub> book buy ]	v ]	T ]						
phase 1		phase 2						
- b. 

[[ <sub>VP</sub> Erel	[ <sub>VP</sub> book-ACC	<table style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;">[<sub>VP</sub> t buy ]</td><td style="padding: 5px;">v ]</td></tr><tr><td style="padding: 5px;">phase 1</td><td></td></tr></table>	[ <sub>VP</sub> t buy ]	v ]	phase 1		T ]	(=(9b))
[ <sub>VP</sub> t buy ]	v ]							
phase 1								
phase 2								

Support for the claim that syntactic movement plays a role in whether an object is marked accusative or not comes from the interaction of case marking and word order with respect to adverbs. Objects that are not marked for case must follow VP-adverbs like ‘thoroughly’ and ‘quickly’, whereas objects with accusative case come before this class of adverbs in the unmarked order; the comparison in (12) is typical in this respect.

- (12) a. Masha salamaat-\*(y)    türgennik sie-te.

Masha porridge-ACC quickly eat-PAST.3sS

‘Masha ate the porridge quickly.’

b. Masha *türgennik* salamaat-(#y) sie-te.

Masha quickly porridge-ACC eat-PAST.3sS

‘Masha ate porridge quickly.’ (ACC on ‘porridge’ only if contrastive focus)

Assuming that adverbs like *türgennik* ‘quickly’ are generated at the left edge of the VP, they reveal whether the movement shown in (11b) has happened or not—and that this movement determines the case marking in the manner described by (2b). (One complication—which we take to be minor—is that accusative case marking on the post adverbial object in (12b) is not strictly impossible, but is given a special interpretation, as having contrastive focus on the accusative-marked object. We tentatively assume that this is not a syntactically simple structure; rather this surface string is derived only by a series of movements into the left periphery of the clause, driven by considerations of focus and topic. See Vinokurova 2005:211ff for some possible derivations.)

The dependence of accusative case marking on object shift can also be seen in ditransitive clauses. The goal in such clauses is always marked dative, but the theme can be unmarked or accusative depending on its specificity and its position with respect to the goal. When the theme is unmarked for case, it must be a nonspecific indefinite and it must follow the goal; when the theme is marked for accusative case, it is specific or definite and comes before the goal unless additional, focus-driven movements occur:

(13) a. Min Masha-qa kinige-(#ni) bier-di-m.

I Masha-DAT book-ACC give-PAST-1sS

‘I gave Masha books/a book.’

- b. Min kinige-\*(ni) Masha-qa bier-di-m.  
 I book-ACC Masha-DAT give-PAST-1sS  
 ‘I gave the book to Masha.’

Prior to any (relevant) movement, the theme and the goal are both in VP, with the goal c-commanding the theme. (This can be shown using standard Barss-Lasnik-Larson tests involving the binding of pronominals (Barss and Lasnik 1986, Larson 1988).) (2a) then assigns dative to the goal on the VP cycle. (2a) is ordered before (2b) by very general ‘Elsewhere’ considerations, because (2a) is a more specific rule than (2b), it applying only to one kind of phase (VP). When (2a) applies, it bleeds the application of (2b) in the VP cycle: once the higher NP has dative case, it becomes embedded in a KP, with the result that it no longer c-commands the lower NP. Hence, the theme is not marked accusative simply by virtue of being in the same VP as the goal. If no movement occurs, the theme never enters the CP phase, the condition described in (2b) never holds, and accusative case is not assigned. The result is sentences like (13a). Alternatively, the theme NP can undergo object shift to the edge of the VP phase, thereby crossing the goal and escaping the domain of existential closure. If it does, then it is visible on the CP phase, as is the subject *Masha*. The two are case competitors, and accusative is assigned to the theme by (2b). In this way, examples like (13b) are derived, as shown in (14b).

- (14) a. 

[[ <sub>VP</sub> Erel	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><sub>VP</sub> [<sub>KP</sub> Masha DAT ] book give ]</td><td style="padding: 5px;">v ]</td><td style="padding: 5px;">T ]</td></tr><tr><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 2</td></tr></table></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 1</td></tr></table>	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><sub>VP</sub> [<sub>KP</sub> Masha DAT ] book give ]</td><td style="padding: 5px;">v ]</td><td style="padding: 5px;">T ]</td></tr><tr><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 2</td></tr></table>	<sub>VP</sub> [ <sub>KP</sub> Masha DAT ] book give ]	v ]	T ]			phase 2		phase 1
<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><sub>VP</sub> [<sub>KP</sub> Masha DAT ] book give ]</td><td style="padding: 5px;">v ]</td><td style="padding: 5px;">T ]</td></tr><tr><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 2</td></tr></table>	<sub>VP</sub> [ <sub>KP</sub> Masha DAT ] book give ]	v ]	T ]			phase 2		phase 1		
<sub>VP</sub> [ <sub>KP</sub> Masha DAT ] book give ]	v ]	T ]								
		phase 2								

 (=13a)
- b. 

[[ <sub>VP</sub> Erel	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><sub>VP</sub> book-ACC</td><td style="padding: 5px;">[<sub>VP</sub> [<sub>KP</sub> Masha DAT ] t give ]</td><td style="padding: 5px;">v ]</td><td style="padding: 5px;">T ]</td></tr><tr><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 1</td></tr></table></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 2</td></tr></table>	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="padding: 5px;"><sub>VP</sub> book-ACC</td><td style="padding: 5px;">[<sub>VP</sub> [<sub>KP</sub> Masha DAT ] t give ]</td><td style="padding: 5px;">v ]</td><td style="padding: 5px;">T ]</td></tr><tr><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;"></td><td style="padding: 5px;">phase 1</td></tr></table>	<sub>VP</sub> book-ACC	[ <sub>VP</sub> [ <sub>KP</sub> Masha DAT ] t give ]	v ]	T ]				phase 1		phase 2
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<sub>VP</sub> book-ACC	[ <sub>VP</sub> [ <sub>KP</sub> Masha DAT ] t give ]	v ]	T ]									
			phase 1									

 (=13b)

This analysis raises the question of how the unshifted direct object gets its case feature valued in examples like (10a) and (13a)/(14a). We have seen that it does not meet

the conditions for accusative case assignment; neither does it satisfy the conditions for nominative case assignment, because it is not close enough to T (cf. (3)). It thus seems to be truly caseless. We believe that this is permitted because the indefinite object satisfies or avoids the case filter by entering into a (pseudo)-incorporation relationship with the verb; such incorporation relationships are known to satisfy the Case filter in many other languages (Baker 1988:106-124). The clearest surface manifestation of the incorporation is the fact that the indefinite object must show up in strict linear adjacency to the verb:

- (15) a. \*Misha serenen kumaaqy xoruopka-qa uk-ta.  
           Misha carefully paper case-DAT put-PAST.3sS
- b. Misha serenen xoruopka-qa kumaaqy uk-ta.  
           Misha carefully case-DAT paper put-PAST.3sS
- ‘Misha carefully put (a) paper(s) in the case.’

If there was no Case filter condition in Sakha, or if default nominative case were freely available, then (15a) should be possible. We take its badness to indicate that (a version of) the Case filter does apply in Sakha, but pseudo-incorporation is a way of satisfying it. We cannot investigate the syntax of pseudo-incorporation further here, however.<sup>7</sup>

It is also possible to move the goal NP out of the VP proper into the CP phase, for reasons of specificity or topic-focus structure. As a result, the goal NP can appear before a VP adverb, and (given the right topic-focus structure) before an accusative object:

- (16) Min Masha-qa/\*ny sorujan kinige bier-di-m.  
       I.NOM Masha-DAT/ACC intentionally book give-PAST-1sS
- ‘I gave Masha books/a book intentionally.’

However, this movement does not affect case marking: the goal NP remains dative, even though it is now in the right structural configuration for (2b) to apply and mark it as accusative. It is not always true that the first case assigned to an NP is the case it surfaces with in Sakha, as we shall see in sections 3.5 and 3.6. However, dative case marking is indelible, given our assumption that as soon as dative case is assigned the valued case feature splits off the NP and becomes a KP head. After this happens, the NP itself no longer has a case feature, and rule (2b) does not apply for this reason. It thus follows that there is differential object marking but no “differential indirect object marking” in Sakha.

Given that movement of the object into the CP phase can feed accusative case marking, we need to consider what happens when the object moves to a position higher than the thematic subject. This kind of scrambling may not be as common in Sakha as it is in Japanese and some other head final languages, but it is possible, as shown in (17).

- (17) Deriebine-ni orospuonnjuk-tar xalaa-byt-tar.  
 village-ACC robber-PL raid-PTPL-3pS

‘Some robbers raided the village.’

Note that the case marking does not change with the word order: it is the object and not the subject that is marked accusative in (17), as in (1b). The issue here is that (2b) might predict accusative case marking on the subject if the object moves directly to the highest position in the clause. Fortunately, phase theory comes into play here, ruling out direct movement. Chomsky’s (2000, 2001) Phase Impenetrability Condition (PIC) says that a NP can only move from inside a phase like VP into a higher phase by first moving to the edge of the lower phase. A sentence like (17) must thus have a representation like (18).

- (18) 

<div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px;"> <div style="display: flex; align-items: center; gap: 5px;"> <span>[TP</span> <span>[<sub>KP</sub> village ACC]</span> <span>...</span> <span>[<sub>VP</sub> robbers</span> <span>[<sub>VP</sub> &lt;village&gt;</span> <span>[<sub>VP</sub> &lt;village&gt; raid]]</span> <span>-PAST ]]</span> </div> <div style="display: flex; align-items: center; gap: 5px; margin-top: 5px;"> <span style="margin-left: 100px;">phase 2</span> <span style="margin-left: 100px;">ACC</span> <span style="margin-left: 100px;">phase 1</span> </div> </div> </div>
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In other words, there must be an occurrence of ‘village’ that is lower than the subject ‘robbers’ and yet accessible on the CP cycle, in addition to the visible occurrence of ‘village’ that is higher than ‘robbers’. (2b) applies at the point of the derivation when ‘village’ is at the edge of VP and lower than the thematic subject, assigning ‘village’ accusative case.<sup>8</sup> That case is immediately spelled out as a KP, and this KP structure is pied piped along with ‘village’ when it undergoes further movement (compare (8)). Since the highest copy of the object NP is embedded in KP, it does not c-command the thematic subject in (18), hence it does not induce accusative case on the subject. Nor can the accusative case feature of the object be overwritten by a nominative case feature, even though the moved object may now be close enough to T to receive nominative case from it; its case feature has already split off as a KP. This reasoning also applies to other kinds of movement of the object into the CP domain: for example, extraction of the object in a relative clause does not make accusative case on the subject possible in Sakha.

Of course, these data do not clearly distinguish our configurational theory of accusative and dative case assignment from the view that accusative case is assigned by the functional head *v*. All these facts have familiar analyses within that framework. So far, then, all we have done is show that the configurational rules in (2) are contenders.

### 3.2 Case marking of thematic subjects

An elementary consequence of a case competition account like (2) is that truly monadic predicates should never have accusative or dative case arguments in Sakha. This follows because the rules in (2) only assign case to an NP if there is another NP in the same domain, and that is never the situation when the predicate is monadic. Indeed, we know

of no intransitive verbs that take dative or accusative subjects in Sakha. Even verbs with experiencer arguments have nominative subjects, in contrast to languages like Icelandic, which has a good number of one-place predicates with quirky-case subjects.

- (19) Masha-(\*qa/\*ny) accykt(aa)-yyr.  
 Masha-(\*DAT/\*ACC) hunger-AOR(3sS)  
 ‘Masha hungers.’

In contrast, the rules in (2) do admit the possibility that there could be *dyadic* predicates that have dative case “subjects” in Sakha. This could arise when two NPs are generated inside VP, but there is no NP with an agent role generated in Spec, vP. In that situation, dative case would be assigned by (2a) to the highest thematic position in the clause, resulting in a dative NP that might act like a subject in some respects. Sakha does not have many predicates of this sort; psych verbs, for example, consistently have a nominative-accusative case pattern, like English rather than Icelandic. But Sakha does have a handful of dative subject constructions in the possessive domain, such as (20).

- (20) Ejiexe massyyna tijj-bet/ baar/ naada.  
 you.DAT car reach-NEG.AOR.3sS/ exist/ need  
 ‘You lack/have/need a car.’

There is evidence of various kinds that the dative argument in these sentences c-commands the bare argument, and not vice versa, so they can legitimately be called dative subjects.<sup>9</sup> (Note also that the lower argument in these sentences is not accusative (but rather nominative). This shows once again that when (2a) applies it bleeds the application of (2b), as we saw in our discussion of ditransitive constructions like (13a).)

There is one other, much more productive circumstance in which a thematic subject receives accusative or dative case: morphological causative constructions. Sakha has a productive causative suffix *-t/-tar* that attaches to many types of verb root. As in many languages, when an intransitive verb appears in the causative construction, its thematic subject is marked with accusative case (if it is definite or specific); when a transitive verb appears in the causative construction, its thematic subject can be marked with dative case (see Vinokurova 2005:306-312 for more examples):<sup>10</sup>

(21) a. *Sardaana Aisen-y/\*Aisenŋ-ŋa yta(a)-t-ta.*

*Sardaana Aisen-ACC/\*DAT cry-CAUS-PAST.3sS*

‘Sardaana made Aisen cry.’

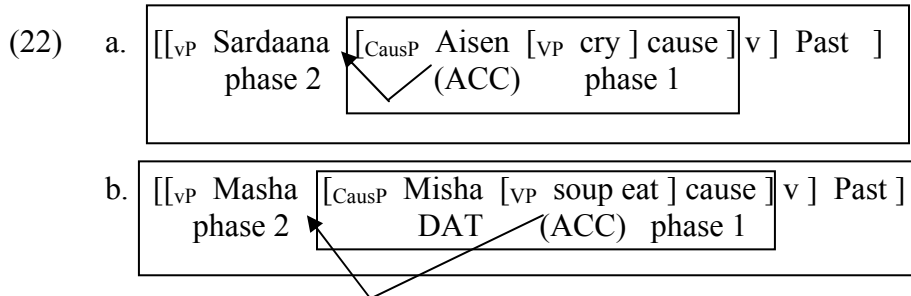
b. *Misha Masha-qa miin-(i) sie-t-te.*

*Misha Masha-DAT soup-(ACC) eat-CAUS-PAST.3sS*

‘Misha made Masha eat (the) soup.’

This familiar pattern also follows readily from the case-marking rules in (2). Agent phrases are usually the highest NPs in the clause, and they aren’t contained in VP; hence they usually do not qualify for dative or accusative case. But the causative morpheme is an additional verbal element; it integrates the agent of the verb root into the larger VP that it heads, and it introduces a still higher argument, the causer. Since, the agent of the base verb is now contained in the maximal VP, it receives dative case if and only if there is another, lower NP inside that VP—if and only if the base verb is transitive. If the lower verb is not transitive, then the agent of the lower verb is the only NP inside the VP headed by the causative morpheme. If it stays inside that VP, it remains unmarked, but if it shifts to the edge of the VP to receive a definite or specific reading, then it enters the

same domain as the higher causer NP; then the lower agent is marked accusative. Many different structures have been proposed for morphological causative constructions, and many of them would fit fine with this analysis; perhaps the simplest is the one in (22).



The fact that dative case is used on the causee if and only if there is another lower NP is perhaps the strongest reason for saying that dative case can be a structural case in Sakha.

Although this range of facts fits well with our configurational rules of case assignment, there are familiar ways of capturing them within theories that have case assigned by functional heads. So we have still not found evidence that chooses between these two approaches. But we are now ready to consider those areas in which case assignment in Sakha is somewhat different from that of more familiar languages—areas in which the advantages of (2) become more evident.

### 3.3 Passive and case assignment

Like many other languages, Sakha has two distinct detransitivizing constructions, the anticausative and the passive. (23) shows a simple transitivity alternation, with (23b) the anticausative member of the pair (Vinokurova 2005:285).

- (23) a. Min oloppoh-u aldjat-ty-m.  
I.NOM chair-ACC break-PAST-1sS  
'I broke the chair.'
- b. Caakky/\*caakky-ny aldjan-na.

cup/\*cup-ACC          break-PAST.3sS

‘The cup broke.’

The theme argument cannot be marked accusative in (23b), whereas it can be in (23a).

This is entirely expected: the intransitive version of ‘break’ does not have an agent generated in Spec, vP. As a result, there is thus no case competitor for the theme argument in the CP phase (or the VP phase), and it is not marked accusative by (2b).

What is interesting about this is that it contrasts with the passive. Unlike the anticausative in Sakha and the passive in Western European languages, the theme argument in a Sakha passive *can* be marked accusative, although it can also be nominative (Vinokurova 2005:336-338), as shown in (24).

(24) a. Caakky/caakky-ny    aldjat-ylyn-na.

cup/cup-ACC          break-PASS-PAST.3sS

‘The cup was broken.’

b. Kinige/kinige-ni    aaq-ylyn-na.

book/book-ACC    read-PASS-PAST.3sS

‘The/a book was read.’

It is not entirely unexpected that there would be such a difference, given our proposal.

Although the agent argument is completely absent in anticausatives, it is well-known that the agent of a passive sentence can still be present syntactically and semantically in various ways (e.g., the famous contrast *\*The ship sank to collect the insurance* vs. *The ship was sunk to collect the insurance*). Given that the agent is present in the passive—for concreteness, say it is a PRO<sub>arb</sub> in the specifier of the vP (Collins 2005:101-104)—it can count as a case-competitor, triggering accusative case on the definite object. In contrast,

there is no agent phrase that c-commands the theme at any syntactic level of representation in an anticausative, so there is no accusative in (23b).

Essentially the same contrast can be seen internal to the passive construction in Sakha. Vinokurova (2005:336) compares passives that have an accusative theme argument with passives that have a nominative theme. She shows that passive clauses with an accusative theme show implicit argument effects: they can contain purposive clauses, agent-oriented adverbs, instrumental phrases, and so on. In contrast, passives in which the theme is nominative show no signs of having an implicit agent argument:<sup>11</sup>

- (25) a. \*Caakky sorujan ötüje-nen aldjat-ylyn-na.  
 cup intentionally hammer-INST break-PASS-PAST.3sS  
 ‘The cup was intentionally broken with a hammer.’
- b. Caakky-ny sorujan ötüje-nen aldjat-ylyn-na.  
 cup-ACC intentionally hammer-INST break-PASS-PAST.3sS  
 ‘The cup was broken intentionally with a hammer.’

We thus posit representations like those in (26) for the sentences in (25); the rule in (2b) then applies as written to assign accusative case to ‘cup’ in (26b) but not in (26a).

- (26) a. [TP [VP -- (\*intentionally) [VP cup [VP t break ]] PASS ] past ]  
 b. [TP [VP PRO<sub>arb</sub> (intentionally) [VP cup-ACC [VP t break ]] PASS ] past ]

This configurational account can be compared to the standard view in which accusative case is assigned by v. Most of the same results follow, given the usual stipulation that only theta-role assigning v assigns accusative case (Burzio’s Generalization). But the standard view must apply Burzio’s Generalization in a very strong way. For these data, it is not enough that there be a general correlation between

functional heads that assign accusative case and functional heads that license an agent argument. Rather, there has to be a very specific correlation, such that what looks like the same functional head (the passive voice marker) assigns accusative case when it has an NP in its specifier and not when it does not. There is no obvious conceptual reason why these two logically distinct properties of *v* should be so closely linked in this way. The pattern makes more sense conceptually within a configurational theory like (2). The data suggest that it is not which functional heads are present that is crucial, but whether a second noun phrase is present, and (2) expresses this much more directly and reasonably.

Finally, consider the assignment of dative case in passive clauses in Sakha.

Unlike accusative case, dative case is unaffected by passivization. When a triadic verb is passivized, the argument that would have been dative in the active sentence is also dative in the passive sentence, while the other argument can either be accusative or nominative:

(27) Suruk/surug-u Masha-qa yyt-ylyn-na.

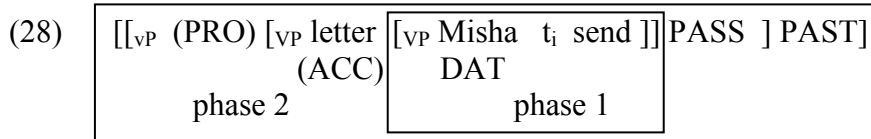
letter/letter-ACC Masha-DAT send-PASS-PAST.3

‘The letter was sent to Misha.’

Alternative structures in which the goal argument is marked nominative in a passive are generally rejected by native speakers (e.g. *?\*Masha suruk yyt-ylyn-na* (Masha letter send-PASS-PAST.3) ‘Masha was sent a letter.’)<sup>12</sup>

This pattern is explained by the rules in (2). Using a passive *v* rather than an active one can affect whether there is an agent argument in *v*P. However, it has no effect on the internal structure of VP. Since dative case is assigned to the higher argument on the VP phase, it is assigned in the same way regardless of whether an active or a passive *v* is merged later. Continuing to assume that dative case is spelled out as a KP and hence

indelible, it follows that the same argument gets dative in a passive sentence as in an active one. Whether the theme object is marked accusative or not depends on two factors—whether it object shifts out of VP, and whether there is a PRO<sub>arb</sub> in Spec of the passive voice phrase—exactly as in simple transitive structures with no third argument:



There is thus no need to stipulate that passive morphology “absorbs” accusative case but not dative case in our theory, as there was in many GB-era versions of Case theory. This asymmetry in the two kinds of case assignment follows directly from the basic formulation of the two rules in (2)—particularly the fact that dative case assignment happens on the VP cycle, whereas accusative assignment happens on the CP cycle.

### 3.4 Agentive nominalizations

Consider next case assignment in agentive nominalizations. Sakha has a productive morpheme *-aaccy* that is used to derive agentive nominals from verb roots; it is similar in many respects to the derivational morpheme *-er* in English (Vinokurova 2005:123-124). But there is one striking difference: unlike in English, the thematic object of an agentive nominalization can have accusative case, as shown in (29).<sup>13</sup>

- (29) a. Masha [ynaq-y kör-ööccü-nü] najmylas-ta  
Masha cow-ACC watch-AG.NOML-ACC hire-PAST.3sS  
‘Masha hired a cowherd.’
- b. [Terilte-ni salaj-aaccy] kel-le  
company-ACC manage-AG.NOML come-PAST.3sS  
‘The manager of the company came.’

In English, it is commonly said that accusative case is not available for the object of the nominalized verb because the functional head *v* that assigns that case is absent in such structures; they contain nominal functional heads like number and determiner, but not verbal ones like *v*. Where then does the accusative case come from in Sakha?

One might try to save the functional head theory of accusative case assignment by saying that the structure of the agentive nominalizations in Sakha is different from that of similar nominalizations in English. Perhaps in Sakha the nominalizing morpheme selects not a bare VP, but rather some larger extended projection of the verb, that includes the assigner of structural case. In the domain of event-denoting nominalizations, this is a familiar possibility: many languages have both “derived nominals” and “gerunds”, where the latter contain more verbal structure than the former (e.g. English *Rome’s vicious destruction of Carthage* versus *Rome’s viciously destroying Carthage*). The problem is that there is apparently no similar distinction in the domain of agent-denoting nominals: for example, English has *the vicious destroyer of Carthage* but nothing like *\*the viciously destroyer Carthage*. Sakha is like English in this respect: other than accusative case assignment, there is no sign that agentive nominals contain any clausal structure higher than a bare VP. For example, adverbs ((30a-b)), aspectual suffixes ((31a)), negation ((31b)), and passive morphology ((31c)) are all forbidden in agentive nominals:

- (30) a. (\*Ücügejdik) terilte-ni      (\*ücügejdik) salaj-aaccy      kel-le.  
           (\*well)      company-ACC (\*well)      manage-AG.NOML come-PAST.3sS  
           ‘The one who manages the company well came.’
- b. djie-ni      (\*bütünnüü/\*xat)      kyraaskal-aaccy  
           house-ACC (\*completely/\*again) paint-AG.NOML

‘the painter of the house (\*completely) (\*again)’

(31) a. \*Suruj-baxt(aa)-aaccy kel-le (no aspectual suffix)

write-ACCEL-AG.NOML come-PAST.3sS

‘A quick writer came.’

b. \*Suruj-um-aaccy kel-le. (no negation)

write-NEG-AG.NOML come-PAST.3sS

‘The one who doesn’t write came; the non-writer came.’

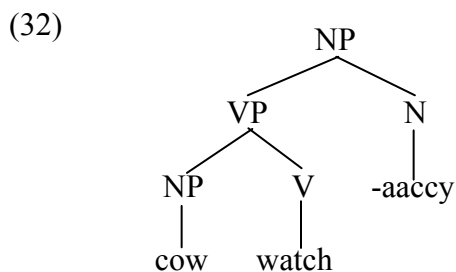
c. \*tal-yll-aaccy (no voice morphology)

choose-PASS-AG.NOML

‘the one who is chosen’

So agentive nominals in Sakha do not contain any extended verb phrase structure, in contrast to eventive nominals/gerunds in English and other languages (including Sakha).

Based on facts like these, Baker and Vinokurova (2008) analyze *-aaccy* as a nominal head that selects a VP complement and no more, as shown in (32).



There is thus no *v* in a structure like (32) that can assign accusative case to the NP object—a problem for a purely Chomskian Case theory. In contrast, the configurational case theory based on the notion of case competition does not depend on certain functional categories being present. There is a noun (projection) in (32) that is distinct from the NP ‘cow’, and *c*-commands it within the same local domain; namely the noun *-aaccy* itself.

Therefore, the case of ‘cow’ is valued as accusative by (2b). (It is crucial here that (2) considers all noun projections, not just maximal NPs, since *-aaccy* c-commands the object ‘cow’ but its maximal projection does not; see note 1.<sup>14</sup>) The case competition account thus extends to agentive nominalizations in Sakha with relative ease, whereas an account that holds that accusative case is assigned by a certain functional head does not.

Finally, consider dative case assignment in agentive nominalizations in Sakha. Given that they have a VP node (although no higher verbal structure), dative case assignment should be a possibility whenever there are two DPs in the VP. This is a correct result: dative case is possible on the goal argument when an agentive nominalization is formed from a ditransitive verb, as shown in (33).

- (33) oqo-lor-go      emp      bier-eecci      ol      tur-ar  
 child-PL-DAT    medicine    give-AG.NOMLthere    stand-AOR.3sS  
 ‘A giver of medicine to children is over there.’

It is curious that when we consider dyadic verbs with a dative internal argument (see note 9), we observe a contrast that is not apparent in the clausal domain. For such verbs, including the dative argument in the agentive nominalization is awkward at best:

- (34) ??presidieŋ-ŋe    kömöloh-ööccü  
 president-DAT    help-AG.NOML  
 ‘the helper of the president’

We take the contrast between (33) and (34) to be support for our case assignment rule in (2a), which says that structural dative case is assigned to an NP only if that NP c-commands a distinct NP within the VP. That condition is satisfied in (33), but not in (34); there is no other NP that ‘president’ c-commands to justify it having dative case.

Verbs like ‘help’ do appear with dative complements in clauses, but we conjectured that this was not the result of structural dative case assigned by (2a), but rather lexical dative case assigned by a null P (see note 9). Many languages do not permit a PP to modify an NP, and Sakha is one of these (*\*ambaar-y tula kürüö* (barn-ACC around fence) ‘the fence around the barn’). Having a benefactive PP in the nominal domain is ruled out for the same reason. This implies that the only kind of dative case that can appear inside a nominalization is structural dative case. The contrast between (33) and (34) then supports the idea that structural dative case assignment depends on there being a case competitor in VP—reconfirming what we observed in causatives and dative subject constructions.

### 3.5 Raising of Subjects

We come now to perhaps the most spectacular evidence for the case competition account of accusative case assignment in Sakha: the “raising to object” construction described but not fully explained in Vinokurova 2005:sec. 6.10. (See also Moore 1998 and references cited there for similar—but not identical—constructions in Turkish.) Vinokurova shows that an NP that moves from an embedded clause into the matrix clause is marked with accusative case. This movement is possible out of both finite and nonfinite clauses:

- (35) a. *Min ehigi/ehigi-ni bürger kyaj-yax-xyt dien erem-mit-im.*  
 I you/you-ACC today win-FUT-2pS that hope-PAST-1sS  
 ‘I hoped you would win today.’
- b. *Min ehigi/ehigi-ni bürger kyaj-byk-kyt-yn ihit-ti-im.*  
 I you/you-ACC today win-PTPL-2pP-ACC heard-PAST-1sS  
 ‘I heard that you won today.’

Vinokurova’s evidence that accusative case on the lower subject is the result of raising it into the matrix clause comes from word order with respect to adverbs, and from negative polarity licensing, which is strictly clause-bound in Sakha. An NP before the matrix clause adverb must be accusative, and so must an NPI licensed by matrix negation:

- (36) a. *Sardaana Aisen-\*(y) beqehee [ -- kel-er dien] ihit-te.*  
 Sardaana Aisen-(ACC) yesterday come-AOR.3sS that hear-PAST.3sS  
 ‘Sardaana heard yesterday that Aisen is coming today.’ (p. 363)
- b. *Min kim-\*(i) daqany kyaj-da dien isti-be-ti-m.*  
 I.NOMwho-(ACC) PRT win-PAST.3sS that hear-NEG-PAST-1sS  
 ‘I didn’t hear of anybody that they won.’ (p. 364)

The judgments reverse if the subject of the lower clause comes after an adverb associated with the lower clause, or if it is a negative polarity item licensed by negation on the lower verb; then it must have nominative case, and cannot be accusative.

At first glance, it might seem that either the configurational theory or the Chomskian theory could explain this sort of data. Within a configurational theory, raising the subject to the edge of the embedded CP or higher places it in the same phase as the subject of the matrix clause. Rule (2b) then marks the lower subject as accusative.

Within a functional head theory, one might suppose that accusative case is assigned by the *v* of the matrix clause; raising the subject takes it out of the lower CP phase and makes it close enough to *v* to be case marked by it. Both accounts are natural enough, and attribute the effect to the PIC in similar ways.

What is striking, however, is that raising to object can take place even when there is no functional head in the matrix clause that could be the source of accusative case.

(37) shows raising into a matrix clause whose predicate is the intransitive member of a transitivity alternation (*xomoj* ‘become sad’ as opposed to *xomot* ‘make sad’; *tönün* ‘return’ as opposed to *tönnör* ‘make return’), hence an unaccusative verb.

- (37) a. Keskil Aisen-y [kel-bet dien] xomoj-do.  
 Keskil Aisen-ACC come-NEG.AOR.3sS that become.sad-PAST.3sS  
 ‘Keskil became sad that Aisen is not coming.’ (p. 366)
- b. Masha Misha-ny [yaldj-ya dien] tönün-ne  
 Masha Misha-ACC fall.sick-FUT.3sS that return-PAST.3sS  
 ‘Masha returned (for fear) that Misha would fall sick.’

The *v* associated with these unaccusative verbs cannot assign accusative case on standard assumptions; this is the very same *v* that cannot assign accusative case in sentences like (23b). Nevertheless, accusative case marking is possible in (37). Similarly, (38) shows that an NP can raise out of the embedded clause and be marked with accusative case even when the matrix verb is a passive with no implicit agent argument.

- (38) Sargy Masha-ny [t tönün-üö dien] erenner-ilin-ne.  
 Sargy Masha-ACC [t return-FUT.3sS that] promise-PASS-PAST.3sS  
 ‘Sargy was promised that Masha would return.’

These data are unexpected on the view that accusative case is assigned by a particular functional head, such as transitive *v*.

In contrast, the case competition view easily accounts for the data in (37) and (38). When the subject of the lower clause raises into the higher clause, it enters the same domain as the (derived) subject of the matrix clause. This NP is a case competitor

for the raised subject, triggering accusative case on it. Functional heads do not come into the account; all that matters is that there is another noun phrase in the matrix clause.

Notice that the verbs in the embedded clauses of many of these examples are finite, and agree with the embedded subject, even when that subject raises and is marked accusative. Given our rule of agreement in (3), this implies that T assigns nominative case to the subject in the embedded clause prior to raising. These examples thus show that the accusative case rule in (2b) can do more than fill in an unvalued case feature; it can also change a valued case feature. This is possible crucially because nominative case is *not* spelled out as a KP projection. Nominative remains a simple feature value assignment throughout the syntactic derivation, and as such it can be overwritten. In contrast, we have seen that an NP with dative case cannot become accusative by raising out of VP, nor can an NP with accusative case become nominative by moving into TP. That is because these cases are spelled out as KPs, and hence are indelible.

It is also possible for an NP to get accusative case by moving to the edge of an adjunct clause, as shown in (39).<sup>15</sup> This can happen even when the matrix clause is transitive. The result is two distinct accusative case marked noun phrases, something that is otherwise extremely limited in Sakha.

- (39) a. Masha [Misha-ny kel-ie dien] djie-ni xomuj-da.  
 Masha [Misha-ACCcome-FUT.3sS that] house-ACC tidy-PAST.3sS  
 ‘Masha tidied up the house (thinking) that Misha would come.’ (p. 368)
- b. Masha Kesha-qa [Misha-ny aaq-ya dien] kinige-ni bier-de.  
 Masha Kesha-DAT [Misha-ACCread-FUT that] book-ACC give-PAST.3sS  
 ‘Masha gave Kesha the book so that Misha would read it.’ (p. 368)

These examples are at least awkward for the view that case is assigned by functional heads, because there is only one transitive *v* that could be a source for accusative case in the matrix clauses in (39). Given that case assignment by a functional category is usually one-to-one, this *v* cannot assign case both to the object of the matrix verb and the raised subject of the embedded verb. (If one changed this assumption, then it would be hard to explain why the two objects of triadic verbs like *give* and *send* cannot both be assigned accusative case in Sakha; see (1c) and (9c).) In contrast, the case assignment rule in (2b) does not create any expectation that accusative case assignment must be unique. It is perfectly imaginable that there would be two NPs that move into a single CP phase, both of which are c-commanded by a third NP that is base-generated in that higher domain. Then both will be marked for accusative case. That is what we see in (39), where subject raising and object shift both feed accusative case assignment in the same clause.

There is one very instructive situation in which a subject raised out of an embedded clause cannot be marked as accusative. That is when the matrix clause is an impersonal predicate like ‘be certain’ or ‘be necessary’, which has at most an expletive subject. Raising the subject out of the clausal argument of these predicates is possible, as shown by word order with respect to adverbs. Nevertheless, the raised NP in these circumstances must be unmarked for case, and cannot have the accusative suffix:

- (40) Masha-(\*ny)    bögün munnjax-xa    [ehiil    Moskva-qa    bar-ar-a]  
Masha-(\*ACC) today meeting-DAT [next.year Moscow-DAT go-AOR-3sS]  
cuolkaj buol-la.  
certain be(come)-PAST.3sS  
‘It became clear today at the meeting that Masha will go to Moscow next year.’

Thus while the transitivity of the matrix verb is not crucial to the licensing of accusative case, it is crucial that there be another NP in the matrix clause. This is important evidence in favor of the case competition account based on (2).

Finally, consider the implications of subject raising for dative case assignment. Vinokurova (2005:367) observes that when the subject of the complement clause of the verb ‘promise’ raises into the matrix clause, the other internal argument of ‘promise’ cannot be marked accusative, but must be marked dative:

(41) Sargy Keskil-i [Aisen kel-ie dien] erenner-de.

Sargy Keskil-ACC Aisen come-FUT that promise-PAST.3sS

‘Sargy promised Keskil that Aissen will come.’

(42) Sargy Keskil-ge/\*i Aisen-y [ t kel-ie dien] erenner-de.

Sargy Keskil-DAT/\*ACC Aisen-ACC come-FUT that promise-PAST.3sS

‘Sargy promised Keskil that Aissen will come.’

Our case assignment rules allow us to understand why this is. The clausal complement of ‘promise’ is its innermost argument; it is generated inside the matrix VP. When an NP raises to the edge of this CP, it becomes visible in the matrix VP phase. The matrix verb ‘promise’ also selects for an NP argument inside the VP, a goal-like argument that expresses the one who receives the promise. This goal argument c-commands the clausal argument, so it also c-commands the subject NP that has raised to the edge of the CP. The conditions specified by (2a) thus apply, and dative case is assigned to the NP argument of ‘promise’. From the edge of the embedded CP, the subject of the lower clause can move on to the edge of the matrix VP; when it does, it becomes visible in the matrix CP phase, and is marked accusative because it is c-commanded by the matrix

subject. What is not possible is for the lower subject to be marked accusative without the promisee being marked dative. That would require the lower subject to move directly from the lower CP phase into the higher CP phase, without entering the matrix VP phase; such a derivation would violate the PIC. In contrast, the adjunct clauses in (39) are generated outside the matrix VP, and are not c-commanded by the internal argument of the matrix verb. When NP raises to the edge of the adjunct clause, it does not enter the matrix VP phase, but only the matrix CP phase. Raising from an adjunct clause thus does not feed dative case assignment, whereas raising from a complement clause can.

We take this to be good evidence that the various details of our proposal fit together in the appropriate way. We think it would be very difficult for a classical theory in which case is assigned by designated functional heads to capture this range of facts.

### 3.6 Raising of Possessors

Sakha also has a possessor raising construction, which is similar in some respects to the subject raising construction, but which also has some important differences. Vinokurova (2005:146-151) discusses this construction only for the existential predicate *baar*, but it is possible with a wide selection of unaccusative verbs. It provides some further support for our dative case assignment rule.

In most instances, a possessor forms a constituent with the possessed NP in Sakha. When this happens, the possessor is contiguous with the possessed NP, and the possessor is in genitive case (unmarked and homophonous with the nominative, except when the possessor itself is possessed). A simple base-line example of this is (43).

- (43) Beqehee Misha at-a öl-lö.  
yesterday Misha(GEN) horse-3sP die-PAST.3sS

‘Misha’s horse died yesterday.’

But under certain conditions, it is also possible for the possessor to raise out of the possessed NP, so that it is separated from the possessed noun by (for example) an adverb. In particular, this can happen when the possessed NP is the subject of an unaccusative verb. The raised possessor can be morphologically unmarked, or it can have dative case:

(44) a. Misha-(qa) beqehee at-a öl-lö.  
Misha-DAT yesterday horse-3sP die-PAST.3sS  
‘Misha’s horse died on him yesterday.’

b. Masha-(qa) emiske massyyna-ta aldjan-na  
Masha-(DAT) suddenly car-3sP break-PAST.3sS  
‘Masha’s car suddenly broke down.’

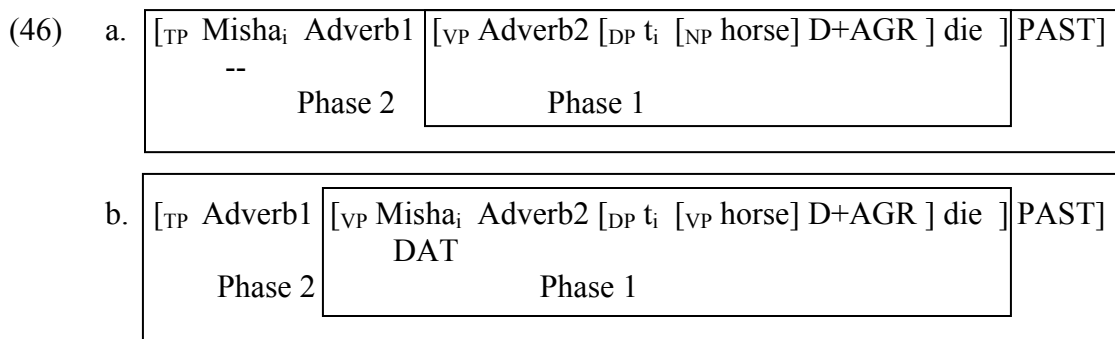
Prima facie evidence that these are raising constructions comes from the fact that they are ungrammatical if there is no possessive agreement on the head noun of the theme argument, or if the head noun agrees with something other than the “raised” NP:

(45) a. \*Masha-(qa) beqehee massyyna-m aldjan-na  
Masha-(DAT) yesterday car-1sP break-PAST.3sS  
‘My car broke down on Masha yesterday.’

b. \*Misha-(qa) beqehee at öl-lö.  
Misha-(DAT) yesterday horse die-PAST.3sS  
‘The horse died on Misha yesterday.’

Hence, there must at minimum be some kind of binding/chain formation relationship between the “raised” NP and the possessor of the theme for the construction to be interpretable. We tentatively assume that it is a full-fledged movement relationship.

Why does the raised possessor get dative case in some sentences and not in others? Pursuing the idea that this is an instance of structural case assignment, it must be that the structures are slightly different. Given our rule of dative case assignment in (2a), it is clear what the difference must be. Structural dative case is assigned to an NP only if that NP is inside VP, and there is another NP inside VP that it c-commands. We thus conjecture that the landing sites of the two types of possessor raising are slightly different. In one case, the possessor raises to a position that is high in VP but still fully contained in VP, such as Spec, VP ((46b)) (or perhaps Spec, ApplP). In the other case, the possessor raises higher, to the edge of VP, or out of the VP phase all together ((46a)).



In (46b), *Misha* receives dative case in the VP phase, by (2a). In contrast, there is only one NP in the VP phase in the (46a) structure, so dative case assignment does not apply. Moreover, the theme argument cannot undergo object shift in this construction (it must be adjacent to the verb, not separated from it by an adverb). As a result, there is only one NP in the CP phase as well (the raised possessor), so accusative case is not assigned either. These two structures thus give us the different case patterns that we observe in (44), using only our independently motivated rules of case assignment.

If this is correct, we might be able to confirm that there is a structural difference between the two kinds of possessor raising constructions through careful use of adverbs.

Both sorts of possessor raising can cross over adverbs properly contained in VP; these are important for showing that the possessor has raised out of DP in the first place. But there might be another class of adverbs—adverbs generated in TP or some other constituent larger than VP—which reveal a difference. The prediction would be that the unmarked type of possessor raising should cross these adverbs more easily than the dative type of possessor raising, because the unmarked type targets a higher position. There are data that confirm this. Both types of possessor raising can cross manner adverbs like ‘suddenly’, but bare possessor raising is more comfortable than dative possessor raising when crossing a time adverb like ‘yesterday’ or a modal adverb like ‘probably’:

(47) a. Beqee Masha-(qa) emiske massyyna-ta aldjan-na  
 yesterday Masha-(DAT) suddenly car-3sS break-PAST.3sS  
 ‘Yesterday Masha’s car suddenly broke.’

b. Masha-(??qa) beqee/baqar massyyna-ta aldjan-na  
 Masha-(??DAT) yesterday/probably car-3sP break- PAST.3sS.  
 ‘Yesterday/probably Masha’s car broke.’

(See also Vinokurova 2005:149, where it is observed that dative possessor raising cannot cross a locative adjunct.) Examples with dative possessors in front of high adverbs are not entirely out, nor should we expect them to be; there is always the possibility of additional scrambling that would move the dative NP from its case position in (46b). But abstracting away from this, the difference between unmarked possessor raising and dative-marked possessor raising seems clear, and goes in the predicted direction. Thus dative case in these examples is attributable to (2a).

We must now ask what case the morphologically unmarked NPs have in the possessor raising examples. Although it is not directly observable, (3) implies that it has genitive case, not nominative case, because this case must have been assigned when the NP underwent agreement with possessive D before raising out of DP. Indirect support for this is the fact that similar raised NPs clearly bear genitive case in Turkish and other Turkic languages, where genitive case is expressed more robustly than in Sakha. Kornfilt (1997:186) cites examples such as (48), but none where the moved possessor has nominative case. We assume that case is the same in Sakha, although it is less apparent.

(48) Hasan-in garaj-da beş araba-sı var. (Turkish)

Hasan-GEN garage-LOC five car-3sP exist

‘Hasan has five cars in the garage.’

The possessor-raising-to-dative construction analyzed in (46b) also has agreement between the possessed noun phrase and the raised possessor. Therefore, the possessor must initially be assigned genitive in this construction too, given (3). Examples like (44) with dative case thus imply that the dative case assignment rule in (2a) can overwrite a genitive case value, just as the accusative case assignment rule can overwrite a nominative case value. That is consistent with the fact that genitive case, like nominative case, is morphologically “weak” in Sakha—not usually realized as a case particle, hence plausibly not spelled out as a KP. It can thus be overwritten by a subsequent case assignment. Indeed, possessor raising can also feed the kind of “raising to object” discussed in the preceding section, as in (49); this shows that accusative case assignment can also overwrite genitive case, as expected.

(49) Min Masha-ny (beqehee) [CP [DP *t* yt-a\_] öl-büt-ün] ihit-ti-m

I.NOM Masha-ACC (yesterday) dog-3sP die-PTPL-3sP.ACC hear-1sS

‘I heard of Masha yesterday that her dog died.’

We see then that nominative and genitive cases are consistently “weak” in Sakha and can be overwritten by a subsequent assignment of case, whereas accusative and dative cases are consistently “strong” and can never be overwritten.

In contrast to Sakha, the Turkish genitive is realized as a robust case particle. It is therefore plausible to think that genitive case might be spelled as a KP in Turkish, although not in Sakha. If so, then we would expect genitive case assignment to be indelible in Turkish. This seems to be true. First, Kornfilt (personal communication) confirms that there is no possessor-raising-to-dative construction in Turkish, similar to (48), but with *Hasan-a* instead of *Hasan-ın*. This suggests that dative case cannot overwrite genitive case in Turkish, assuming that the same range of movements are in principle possible in the two languages. Kornfilt (1997:187-188) also states that the Turkish equivalent of (49), with possessor movement feeding raising to object, is “possible to find” but “decidedly odd”; other speakers consider it ungrammatical.<sup>16</sup>

(50) ?\*Ben Hasan-ı [[ -- ev-i ] yan-dı ] san-ıyor-du-m

I.NOM Hasan-ACC house-3sP burn-PAST believe-PROG-PAST-1sS

‘I believed Hasan to have had his house burn down.’

This shows that accusative case also cannot overwrite genitive case in Turkish. The difference between the two languages thus seems to be systematic in the way our theory expects. This is theoretically significant, because it supports our conjecture that the two notions “case assigned by configurational rule” and “case realized by a KP structure” (so

indelible) are independent. The two happen to be correlated in Sakha, but genitive in Turkish is assigned by a functional head and yet spelled out as a KP.

### 3.7 Case assignment in PPs

Finally, we consider a case alternation that is found in certain PPs. The class of postpositions is a rather heterogeneous one in Sakha. Many relations that are expressed by PPs in other languages are expressed either by oblique cases or by “auxiliary” (i.e., relational) nouns in Sakha. Moreover, some of the Ps that do exist are derived historically from locative nouns or from participial verbs. Given this, it is not surprising that the case assigning properties of Ps are also rather heterogeneous. We assume that most are simply lexically specified as assigning one particular lexical case, whether genitive (*kurduk*, like; *tuxary*, during; *nöñüö*, through), dative (*dieri*, until; *dyly* ‘like’), ablative (*taxsa* ‘over, beyond; *syltaan*, because of), or accusative (*byha* ‘during’, *kytta* ‘with’ and *nöñüö* ‘over’). This is of no particular interest for our investigation into structural case.

There are, however, three postpositions whose objects undergo an alternation. The objects of these Ps can be marked with accusative case, or with genitive case:

- (51) a. Tya-(ny)      kurdat    djie    köst-ör.  
          forest-(ACC) through house appear-AOR.3sS  
          ‘A house appears through the forest.’
- b. Masha djie-(ni)      tula      türgennik    süür-de  
          Misha house-(ACC) around quickly    run-PAST.3sS  
          ‘Misha ran quickly around the house.’
- c. Masha tünnük-(ü)      utary      olor-do  
          Masha window-(ACC) opposite sit-PAST.3sS

‘Masha sat opposite the window.’

We claim that when these PP objects bear accusative case, this is the result of structural accusative case being assigned in accordance with rule (2b). The crucial evidence for this is that when PPs headed by these Ps modify impersonal verbs that have no thematic subject, their complement cannot have accusative case:

- (52) a. Ambaar-(\*y) tula itii.  
barn-(ACC) around hot  
‘It is hot around the barn.’
- b. Tünnük-(\*ü) utary tymnyy.  
window-(ACC) opposite cold  
‘It is cold opposite the window.’

This somewhat peculiar fact can be made to follow on the case competition approach. In (51) there is another NP argument of the verb which can function as the case competitor for the object of P, licensing accusative, whereas in (52) there is not. The contrast between (51) and (52) is strongly reminiscent of the contrast between raising a subject into a matrix clause that has its own subject ((37)) as compared to raising a subject into a matrix clause with a subjectless impersonal predicate ((40)). Like those sentences, the contrast between (51) and (52) gives strong support for the case competition theory.

To flesh out the account, we should say something about the fact that accusative marking is optional in the examples in (51). The factors that govern this optionality are not the same as those that determine whether the direct object of the verb is accusative or not. For example, the definiteness of the object does not matter here: even in a sentence like ‘Misha sat opposite Masha’, accusative can be omitted on the proper name ‘Masha’.

Nor is the variation in case related to the position of the PP with respect to adverbs: accusative case marking on the object is optional both when the PP comes before an adverb ('I house-(ACC) around quickly ran') and when it comes after the adverb ('I quickly house-(ACC) around ran'). We tentatively assume that the PP is always generated outside the VP phase. The optionality of accusative case assignment has to do, we suggest, with the phasehood of the PP itself: these particular PPs *optionally* count as phases.<sup>17</sup> When the PP is a phase, its object is in a different phase from the subject of the clause, so accusative case marking rule does not happen, and the object must get lexical (genitive) case from P. When the PP is not a phase, the object of the P is visible on the matrix CP phase. If the matrix CP contains another NP, as in (51), then accusative case is assigned to the object of P by (2b). If the matrix CP does not contain another DP, as in (52), accusative case marking does not apply. This accounts for the observed range of facts. Once again the number of NPs in the clause proves to be crucial, whereas exactly which functional heads are present is not crucial.

#### **4. Nominative and Genitive case: the relationship to agreement**

In the bulk of this paper, we have considered accusative and dative case in some detail, arguing that they are assigned by configurational rules rather than by functional categories. We now turn to nominative and genitive case in Sakha, considering how they are assigned. Since our treatment of these cases is more standard, the discussion does not need to be as detailed, but it is important to see how the various pieces fit together.

If one's only goal were to account for the distribution of case suffixes on NPs in Sakha, it would be easy to extend the configurational account of case assignment in (2) to nominative and genitive NPs, resulting in a pure Marantzian theory. For example, we

could say that genitive case is assigned to the highest NP in a DP phase, otherwise nominative case is assigned to the highest NP in any phase (this rule would be blocked by the more specific rules of dative and genitive assignment; see Marantz 1991). An even more radical approach could be to say that there really is no nominative or genitive case in Sakha; what we call nominative and genitive NPs are simply NPs that are not assigned dative or accusative case by the rules in (2). This could account for the default nature of these cases in Sakha and for the fact that these cases are (usually) not marked by any overt morphological exponent. Some refinements might be needed, but we see no reason why a purely configurational approach along these lines could not work.

But case marking does not exist in isolation. The true theory of case should not only explain case marking itself, but also its interaction with the related phenomenon of agreement. Indeed, Chomsky's (2000, 2001) approach is precisely intended to account for the close relationship between case and agreement that exists in many languages, by claiming that case and agreement are two sides of the same coin; both are reflexes of establishing an abstract relationship (Agree) between a functional head that is missing phi-features and an NP that is missing case features. The need to capture a close bijective relationship between case and agreement is not an issue for accusative and dative objects in Sakha, because there is no agreement with objects in this language. But the issue does arise for nominative and genitive NPs, given that nominative (unmarked) subjects agree with Tense suffixed to the verb, as seen throughout this paper, and genitive possessors agree with D suffixed to the possessed noun, as shown in (53).

(53) min oloppoh-um; en oloppoh-ur; kini oloppoh-o, etc.

I chair-1sP you chair-2sP s/he chair-3sP

‘my chair; your chair; his/her chair’

Similarly, the subject of a gerundive nominalization agrees with a D suffixed to the nominalized verb (see (59)). In this section, we argue that careful consideration of these case-agreement correspondences shows that the Chomskian analysis of nominative and genitive case should be adopted, rather than a Marantzian one.

Another way of stating this is as follows. We know that a linguistic relationship (Chomsky’s Agree) is established between the subject and T in clausal structures and between the possessor/subject and D in nominal structures, because we observe agreement between the NP and the functional head. The question, then, is whether there is any payoff for thinking of case assignment as being another consequence of this undoubted relationship holding between functional head and NP. If so, then the standard minimalist conception would be supported in this subdomain. We argue that there is such a pay-off, and this justifies (3), repeated here as (54), as the source of nominative and genitive case assignment.

(54) If a functional head  $F \in \{T, D\}$  has unvalued phi-features and NP has an unvalued case feature [and certain locality conditions hold], then the phi-features of NP are assigned to F and the case of F (=Nom or Gen) is assigned to NP.

#### 4.1 Agreement and Overt Case Marking

One important fact about agreement in Sakha that can be attributed to (54) is that T and D never agree with an NP that has already been marked accusative or dative.

For T, this condition is especially evident in the passives of ditransitive verbs. When the theme object is not marked accusative, T can and must agree with it ((55a)).

But when the theme argument is marked accusative, the verb cannot agree with either internal argument, and must bear default third singular morphology ((55b)).

- (55) a. At-tar Masha-qa ber-ilin-ni-ler.  
 horse-PL Masha-DAT give-PASS-PAST-3pS  
 ‘The horses were given to Masha.’
- b. At-tar-y oqo-lor-go ber-ilin-ne. (\*ber-ilin-ni-ler)  
 horse-PL-ACC child-PL-DAT give-PASS-PAST.3sS give-PASS-PAST-3pS  
 ‘The children were given horses.’

This is also seen in passives of monotransitive verbs: if the thematic object is marked with accusative case, it does not agree with T; if it is not marked accusative, it does agree.

- (56) a. Oloppos-tor aldjat-ylyn-ny-lar.  
 chair-PL break-PASS-PAST-3pS  
 ‘Chairs were broken.’
- b. Oloppos-tor-u aldjat-ylyn-na. (\*aldjat-ylyn-ny-lar)  
 chair-PL-ACC break-PASS-PAST.3sS break-PASS-PAST-3pS  
 ‘Chairs were broken.’

T also cannot agree with the dative subject of ‘need’; rather, it must look past the dative subject and agree with the lower argument, which is not marked for case by (2a-b).

- (57) a. Oqo-lor-go üüt naada-(\*lar)  
 child-PL-DAT milk need-(\*3pS)  
 ‘The children need milk.’
- b. Masha-qa kinige-ler naada-lar.  
 Masha-DAT book-PL need-3pS

‘Masha needs the books.’

Finally, T cannot agree a raised possessor that has dative case; it can only agree with the NP that the possessor was raised from in examples like (58).

(58) #Oqo-lor-go djie-lere umaj-dy-lar.

child-PL-DAT house-3pP burn-PAST-3pS

Bad as: ‘The children’s house burnt’, agreement with the possessor

OK only as: ‘The children’s houses burnt’, with agreement with the theme

So T never agrees with an NP that has already been assigned accusative or dative case.

Similar facts hold for D. In a gerundive nominalization, for example, D can agree with the thematic subject of the verb root:

(59) Masha terilte-ni salaj-yy-ta

Masha company-ACC manage-EV.NOML-3sP

‘Masha’s managing the company’

The agent of such a nominalization can also be left implicit, as in (60), in which case there is no agreement with the agent (at least overtly).

(60) a. terilte-ni salaj-yy

company-ACC manage-EV.NOML

‘the management of the company’

b. oqo-qo em-i bier-ii

child-DAT medicine-ACC give-EV.NOML

‘the giving of medicine to children’



the functional head values it. This condition does not hold if NP has been valued accusative or dative by a previous application of (2a) or (2b). Therefore, T and D cannot agree with such an NP. This is evidence that case marking and agreement are intertwined in Sakha for those functional heads that are active for agreement.<sup>20</sup>

#### 4.2 Case marking and the absence of double agreement in Sakha

There is a known alternative to the Chomskian approach that would cover the facts surveyed in the previous section. This alternative maintains the idea that case marking is done purely configurationally, and makes agreement depend on case marking. It would deny that T and D assign case to NP, but maintain that they can agree with NP only if it is not overtly marked for case, or only if it has a particular case. On this view, there is a one-way dependence of agreement on case, not a two-way codependence of agreement and case, as there is in the Chomskian vision. Bobaljik (2008) adopts this approach explicitly, as do many descriptive and theoretical treatments in passing (e.g., for Hindi).

But this intermediate view still misses an important generalization. All things being equal, it would predict that two different functional heads could agree with the same NP in Sakha, as long as that NP was not overtly marked for case (and the locality conditions on case assignment were satisfied). In contrast, the Chomskian approach predicts that this will not happen: if the first functional head agrees with NP, then it also values the case feature of that NP, even if case is not spelled out overtly at PF. Given the formulation in (54), the second functional head cannot then agree with the NP, because agreement requires that the NP start with an unvalued case feature.

In fact, the prediction of the Chomskian view is accurate: it is systematically impossible to have two distinct heads agree with the same argument in Sakha. This is true

even though there is range of constructions in which one can easily imagine agreement happening twice if that were allowed. For example, in possessor raising constructions where the raised possessor does not receive dative case, the raised NP triggers agreement on the possessed noun, but it cannot also trigger agreement on T:

- (63) Oqo-lor (beqehee) at-tara öl-lö/ \*öl-lü-ler.  
 child-PL (yesterday) horse-3pP die-PAST.3sS/ \*die-PAST.3pS  
 ‘The children’s horse died yesterday.’  
 (3pS agreement only OK as: The children’s horses died yesterday.)

This fact does not follow simply from saying that T and D must both agree with unmarked NPs. It does follow if we say that D marks the NP with genitive before it raises as a concomitant consequence of agreeing with it. Then T cannot agree with it.<sup>21</sup>

The same pattern is seen when the subject NP of a lower clause raises into the matrix clause of a verb that takes no thematic subject. The raised NP bears no overt case marker in this situation, as discussed in connection with (40) above. The embedded verb agrees with the moved NP, but the main clause predicate cannot:<sup>22</sup>

- (64) Oqo-lor бүгүн beqehee kyaj-byt-tara cuolkajdan-na. (\*-ny-lar)  
 child-PL today yesterday win-PTPL-3pS become.clear-PAST.3sS (\*-3pS)  
 ‘Today it became clear that the children won yesterday.’

The ban against agreeing twice with the same NP can also be seen in nominalizations, where the higher agreement-bearing head is D rather than T. The nominalization of the possessor raising structure in (63) is also bad with agreement on D:

- (65) #[Oqo-lor at-taryn öl-üü-lere] miigin xomot-to.  
 children-PL horse-3pP.GEN die-EV.NOML-3pP me.ACC upset-PAST.3sS

Bad as: ‘The children having their horse die on them upset me.’

(OK only as ‘The children’s horses’ dying upset me.)

Similarly, the nominalization of a raising construction like (64) is bad when there is agreement on D with the raised NP:

- (66) Oqo-lor beqehee [ -- kyaj-yax-tara dien] cuolkajdan-yy-ta (\*-lara)  
child-PL yesterday win-FUT-3pS that become.clear-NOM-3sP (\*-3pP)  
‘It’s becoming certain yesterday that the children will win.’

The four constructions considered so far all have agreement on the lower T or D, but not on the higher T or D. There are also constructions that have agreement on the higher head, but these systematically lack agreement on the lower head. For example, Sakha has a second type of subject-to-subject raising, with the predicate translated as ‘seems’. This construction forms a minimal pair with (64), in that there is agreement on the matrix verb ‘seems’ but *not* on the embedded verb:

- (67) Min (Masha-qa) sylaj-byt>(\*ym) kurduk köst-ö-bün.  
I.NOM Masha-DAT become.tired-PTPL-(1sP) like seem-AOR-1sS  
‘I seem (to Masha) to be tired.’

(The participial clause that is the complement of the P *kurduk* ‘like’ can bear agreement in non-raising contexts, so agreement here is not out for trivial morphological reasons.)

Another minimal pair comes from noun complement constructions with a head noun like ‘rumor’. ‘Rumor’ can select a full CP complement headed by the C *dien*, or it can select a participial complement. When it has a full CP complement, the embedded verb agrees with its subject, but there is no agreement on the D associated with ‘rumor’; when it has a participial complement, there is agreement on the D but not on the verb:

- (68) a. En djoro kiehe-qe kel-er-(\*iŋ) suraq-yŋ  
 You party-DAT come-PTPL-(\*2sS) rumor-2sP  
 ‘the rumor that you are coming to the party’
- b. En djoro kiehe-qe kel-ieq-iŋ dien surax-(\*yŋ)  
 You party-DAT come-FUT-2sS that rumor-(\*2sP)  
 ‘the rumor that you will come to the party’

Again, it is perfectly possible for participles to bear agreement with their subjects in other syntactic contexts. For example, participles in Sakha bear subject agreement when they are used as the sole predicate of the matrix clause, as shown in (69).

- (69) a. Min bil-er-im  
 I know-AOR-1sS  
 ‘I used to know.’
- b. Min alta-qa ahaa-byt-ym  
 I six-DAT eat-PTPL-1sS  
 ‘I ate at 6:00.’
- c. En aaq-yaq-yŋ.  
 you read-FUT-2sS  
 ‘You will read.’

So (68a) with double agreement does not violate simple morphological conditions.

It is also significant that possessive agreement is required on ‘rumor’ with the subject of its complement in (68a). This is further evidence that there is a Case filter requirement active in Sakha, we claim. The subject ‘you’ does not meet the structural conditions for accusative or dative case assignment, and there is no T node in the

participial clause to assign it nominative case. If there were no Case filter (or if default case were freely available), this should not matter. But it does. Comparison with (68b) shows that the head noun ‘rumor’ does not need to have an agreement bearing D for its own sake. But in (68a) it does need to have an agreement bearing D; this is apparently for the sake of ‘you’, so that ‘you’ can have its case feature valued (as genitive).

Finally, Sakha has a variety of complex tenses, consisting of a participle and an auxiliary. In all such combinations, agreement shows up on the auxiliary but not also on the participle, even though agreement can attach to participles, as shown in (69):

- (70) a. Min bil-er(\*-im) e-ti-m  
 I know-AOR-1sS AUX-PAST-1sS  
 ‘I used to know.’
- b. Min alta-qa ahaa-byt(\*-ym) e-ti-m.  
 I.NOM six-DAT eat-Past.PPL-1sS AUX-PAST-1sS  
 ‘I had already eaten at 6:00.’
- c. En aaq-yax(\*-yŋ) e-ti-ŋ.  
 You read-FUT-2sS AUX-PAST-2sS  
 ‘You would read.’

This is by no means a universal pattern; there are many languages that allow double agreement in participle-plus-auxiliary constructions, including many Bantu languages, Burushaski, Fijian, *Tukang Besi*, Georgian, and others (see Baker 2008:ch.5). Some of these languages also have double agreement in subject-to-subject raising constructions like (67). But in Sakha this kind of double agreement is systematically not possible.<sup>23</sup> We conclude that a rich array of empirical consequences follow from the interrelated

claims that T assigns nominative, D assigns genitive, and agreement on these heads is codependent with case assignment in Sakha.

Could the same pattern be captured without assuming that nominative and genitive case assignment happens as specified in (54)? Technically yes, it could be done. Suppose that NP agrees in the embedded domain, before raising into a higher domain. Then the NP must be marked somehow to show that it has already undergone agreement, and is not eligible to undergo agreement again. What kind of marking would this be? In the Chomskian theory, that is exactly the role of the case feature: an NP with valued case has been agreed with; an NP with an unvalued case feature has not been and is still eligible for agreement. This way of developing the alternative thus makes it almost nondistinct from the Chomskian theory. While it is possible to assume that there is a novel “bookkeeping” feature of this kind and deny that it has any relationship to case marking, we think it is reasonable to put the burden of proof on a theorist who wants to maintain this, given that case is an independently needed feature of NPs in Sakha.

## **5. Conclusion**

We have shown that there are two kinds of structural case in Sakha, each with its own logic. Nominative and genitive are assigned by functional heads (D and T) and go along with agreement. Accusative and dative are not assigned by functional heads, but rather by configurational case marking algorithms, and (consequently) NPs with these cases are never agreed with. This is a hybrid theory, like Chomsky’s for two of the structural cases, but like Marantz’s for the other two. Languages seem to be consistent as to whether functional heads need to case mark NPs in order to agree with them or not; for example, both T and D have this property in Sakha. But languages need not be consistent

in how the various NPs of the language are assigned case in the first place. This implies that a full-fledged typology of case marking systems figures to be more complex, having more factors to keep track of, than is usually thought.

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\* [Acknowledgments to be added.]

The following abbreviations are used in the glosses of examples cited in this paper: ACC, accusative case; ACCEL, accelerative aspect; AG.NOML, agentive nominalizer; AOR, aorist tense/participle; AUX, auxiliary; CAUS, causative; DAT, dative case; EV.NOML, eventive nominalizer; FUT, future tense/participle; GEN, genitive case; INST instrumental case; LOC, locative case; NEG, negation; NOM, nominative case; PASS passive; PAST, past tense; PL, plural; PROG, progressive; PRT, particle; PTPL, past participle. Agreement morphemes are glossed with a triple symbol that begins with a number expressing the person of the agreed with element (1, 2 or 3), followed by a lower case letter expressing the number of that argument (s for singular; p for plural), followed by an upper case letter indicating the grammatical function of the agreed with element (S for subject or P for possessor).

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<sup>1</sup> The rules in (2) are stated in the style of Chomsky's (1995) "Bare Phrase Structure", inasmuch as no principled theoretical difference is drawn between a noun and its maximal projection. In addition to this being good theoretical form, it pays a dividend when we come to case assignment in agentive nominalizations in section 3.4.

<sup>2</sup> In addition to their other differences, the two types of case theory are generally held to apply in different components of the grammar. Chomsky's case assignment by functional categories is thought to take place in syntax, whereas Marantz (1991) assumes that his configurational case assignment rules apply at PF. As far as we can see, the nature of the case assignment rules is independent of what component of the grammar they apply in. We assume that both (2) and (3) happen in the narrow syntax; in fact (2) can apply so as to bleed the application of (3), as we shall see. See also Legate 2008 for arguments against applying case assignment only at PF.

<sup>3</sup> NPs are presumably not generated with a case feature in Sakha if they are not merged into a clause at all (e.g. a vocative like *Masha!*), or if they are generated in an adjunct position, as a dislocated topic. Perhaps predicate nominals are also not generated with a case feature in Sakha, given that they do not agree with their subjects in case the way predicates in (say) Icelandic and Russian do, but are always unmarked for case.

<sup>4</sup> In Sakha, the cases that are assigned by configurational rule are the same as cases that are realized as KP structures on the surface. We tentatively take this to be a coincidence. As mentioned above, genitive is robustly realized as an NP-final particle in Turkish. We suspect that this overt genitive is assigned by D but represented as a KP on the surface. This has the effect that genitives cannot raise to become accusative or dative the way they can in Sakha; see sections 3.5 and 3.6 for some discussion. If this is correct, then there is

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no tight connection between the way that a case is assigned and the way it is realized on the surface. The matter deserves more systematic crosslinguistic investigation, however.

<sup>5</sup> If goal phrases are generated in the specifier of an applicative head, distinct from the core verb, then we must consider the ApplP to be a kind of extended VP, with the maximal VP (i.e, ApplP) counting as the lower phase for purposes of (2a). The structure would then be identical to the one shown (22b), except with an applicative head in place of the causative head. We see no fundamental objection to this analysis, but there is no overt applicative morpheme in Sakha that calls out for it either.

<sup>6</sup> There are controversies in the literature about whether vP or VP is the smaller phase in the clause; Fox and Pesetsky 2004 even assume that this is something that varies across languages. It is crucial to our account that the smaller domain be VP in Sakha, at least for purposes of case assignment, as the reader can easily check. We cannot consider here whether there might be other considerations that point to vP as being a phase in Sakha. We also crucially assume that VP is a phase even in passive and unaccusative clauses, to account for dative case assignment in such clauses; see Legate 2003 for discussion.

<sup>7</sup> Note that these incorporated nominals are still active for purposes of case theory, inasmuch as the pseudo-incorporated object triggers dative case marking on the goal NP in (13a), just as the unincorporated one in (13b) does.

<sup>8</sup> There would be other ways to achieve this result that depend less on the exact sequence of operations in a derivation. For example, one could say that NPs in A-bar positions—including the object in pre-subject position—do not count for the rules in (2). We do not investigate the pros and cons of the various technical possibilities here.

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<sup>9</sup> In fact, *baar* and *naada* are adjectival predicates, not true verbs. We assume that this category difference is largely irrelevant to the point at hand, but it does imply that (2a) must be generalized to apply within AP constituents as well as VPs.

Sakha also has predicates (verbs and adjectives) that take nominative subjects and dative internal arguments, including *üŋ* ‘pray to’, *toŋxoj* ‘bow to’, and *kömölös* ‘help’:

(i) Min      presidieŋ-ŋe      kömölöh-ö(r)-bün.

I.NOM    president-DAT    help-AOR-1sS

‘I help the president.’

With these predicates, the nominative argument asymmetrically c-commands the dative argument, whereas it is the other way around in (20). The rule in (2a) cannot account for the dative on the internal argument in (i). We analyze this as an instance of lexical dative case being assigned by a null postposition. This is not implausible, given that some overt postpositions clearly assign dative case in Sakha as an idiosyncratic lexical property (e.g. *ojuur-ga dieri* ‘forest-DAT until’). We thus follow Emonds (1985), McFadden (2004) and others in assuming that Sakha has null Ps with locative, temporal, and benefactive meanings that assign dative case, and (i) contains one of these. Some evidence in favor of this view is that dative expressions like the one in (i) are not good in nominalizations, whereas structurally case marked dative NPs are; see section 3.4 for discussion.

<sup>10</sup> Vinokurova 2005 shows that when the base verb is transitive, the causee can also be marked with accusative case or with instrumental case. As an oblique case, instrumental falls outside the domain of this inquiry. We might be able to include the possibility of accusative case on the causee in our analysis by tinkering with our assumptions about what counts as the smaller phase in a causative construction. In (22b) we assume that the

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*maximal* VP, including the projection of the causative morpheme, is the phase; this yields dative case on the causee. Now suppose that the *minimal* VP can optionally count as another phase. Then there would be no VP phase that contains both the causee and the thematic object, so (2a) would not assign dative case to the causee. However, the causee and the thematic object could both object-shift into the CP phase; when they do, (2b) assigns them both accusative case, because they are c-commanded by the causer.

<sup>11</sup>As expected, anticausatives are like agentless passives in these respects: they also cannot have adverbs like ‘intentionally’ or instrumental NPs (*\*Caakky sorujan ötüje-nen aldjan-na* ‘The cup intentionally broke with a hammer’).

<sup>12</sup>We have observed some variability in this judgment. Some permissive speakers marginally accept some examples of this form, depending on which verb is used, while conservative speakers consistently reject them. We assume that they are basically bad.

<sup>13</sup>When it is a nonspecific indefinite, the object of an agentive nominalization can undergo pseudo-incorporation, appearing as a caseless NP right-adjacent to the nominalized verb (e.g., *ynax kör-öccü* (cow watch-AG.NOML) ‘cowherd’; cf. (29a)).

<sup>14</sup>A possible objection to this “Bare Phrase structure” way of applying rule (2b) is that it overgenerates, wrongly allowing accusative case to be assigned to the NP complement of a noun head, potentially resulting in a phrase like *\*Keskil-i tiis* (Keskil-ACC tooth) ‘Keskil’s tooth’. We assume that the potentially problematic structures simply do not arise, because nouns cannot take NPs as complements for reasons having to do with the theory of lexical categories and selection (see Pesetsky and Torrego 2006). (Inalienable possessors must in fact be generated in Spec, DP in Sakha: *Keskil tiih-e* (Keskil(GEN) tooth-3sP) ‘Keskil’s tooth’.)

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<sup>15</sup>That the NP does not raise out of an adjunct clause can be shown by the impossibility of the NP coming before a matrix adverb, and by the fact that an NPI cannot be licensed by negation on the matrix verb. Presumably movement entirely out of the adjunct clause is blocked by the adjunct island condition or whatever more general principle it reduces to.

<sup>16</sup>The equivalent of (50) is possible in Turkish if there is a relationship of inalienable possession between the DP and its raised possessor. We assume that inalienable possession has a different structure in some relevant way, but make no specific proposal.

<sup>17</sup>An alternative might be to say that the objects of these Ps are optionally allowed to move to the edge of the PP phases, whereas the objects of other Ps cannot do this.

<sup>18</sup>The examples in (61) are also bad if accusative case is omitted on ‘company’, or if dative case is omitted on ‘children’. Thus it is not possible for agreement and genitive case assignment to overwrite a pre-existing instance of accusative or dative assignment.

Alternative analyses might be possible for some of these facts. For example, one might say that there is a covert subject in (61) that (i) triggers accusative case on the object, but (ii) intervenes between D and the object, preventing agreement between the two. That is plausible enough for (61), but less plausible for the equivalent agentive nominalization, given that these do not have PRO subjects (see (32)).

<sup>19</sup>Yet other examples can be constructed to show that D on the head noun of a relative clause can agree with an NP in the relative clause if it is unmarked for case, but not if it bears accusative or dative case; we omit these examples for the sake of brevity.

<sup>20</sup>Compare Baker 2008:ch.5, where it is argued that agreement depends on there being a case-valuing relationship between the agreeing head and the agreed with NP in some

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languages but not others, as a parametric difference. In Baker's terms, the data in this section show that the Case-Dependency of Agreement Parameter is set Yes in Sakha.

<sup>21</sup> Technically, examples like (63) also imply that nominative case marking cannot overwrite genitive case marking in Sakha, although this is not very striking empirically since nominative case and genitive case are both morphologically unmarked in most environments. Conversely, (66) implies that genitive case marking cannot overwrite nominative case marking. More generally, nominative and genitive case can never overwrite another case value in Sakha, because the NP must not already have a case value for the case marking/agreement rule in (54) to apply. Meanwhile, accusative and dative case can never be overwritten by another case in Sakha, because they are immediately spelled out as KPs and this structure cannot be changed. The only situations in which one case overrides another are when a configurationally assigned case (accusative or dative) is assigned to an NP that has already received a non-spelled out case (nominative or genitive). A range of such examples was discussed in sections 3.5 and 3.6.

<sup>22</sup> One might imagine that agreement on the matrix T is ruled out in (64) because the movement is a kind of A-bar scrambling, not raising to an A position, and T can only agree with A-positions. But this is probably not true: the raising has several properties of A-movement rather than A-bar movement. For example, the subject of the embedded clause can not cross a dative argument of the matrix clause. This suggests that the raising obeys the kind of locality expected of A-movement, such that the NP cannot move over another A-position (Rizzi 1990), not the kind expected of A-bar movement. One can also construct some evidence from pronoun binding that this is an A-movement.

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<sup>23</sup> A full account would need to explain why the sole agreement is found on the lower head in some constructions but on the higher head in others. We suspect that agreement always happens on the lowest possible head, and this bleeds the possibility of agreement on higher functional heads. Constructions like (67), (68), and (70) probably have agreement on the higher head because there is no lower head that could bear the agreement in these particular constructions. Nevertheless, they are still useful to drive home the point that agreement on a higher functional head is perfectly fine in Sakha as long as it is not bled by agreement on a lower head.