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 via an agreement relationship, 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 ways of assigning case 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, there is evidence that nominative and genitive are assigned by functional heads in the Chomskian way, as shown by the distribution of nominative case and the relationship between case marking and agreement. The two methods of case assignment thus coexist, not only in Universal Grammar, but in the grammar of a single language.

1. Some theoretical background on modes of case assignment

In the recent generative syntax literature, there are (at least) 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 others 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 view that is usually adopted by generative researchers when their interests touch on Case theory in passing. See also Legate 2008 for a recent defense of this approach.

There is however an alternative to this view that has won some adherents, especially among those who study Case theory directly. This is the idea that case is assigned to noun phrases on a configurational basis. More specifically, in this view what case an NP has typically depends on whether there are other nominals ("case competitors") in the same local domain or not. The first and purest proposal of this sort is that of Marantz (1991).[1] Marantz distinguishes four distinct kinds of case, as follows:

(1) Case realization disjunctive hierarchy: (p. 24)

a. Lexically governed case (i.e., case determined by the lexical properties of a particular item, such as quirky case assigning verbs in Icelandic, or adpositions in many languages).

b. "Dependent" case (accusative case and ergative case)

c. Unmarked case (e.g., nominative case assigned to any NP in a clause; genitive case assigned to any NP inside an NP/DP).

d. Default case (assigned to any NP not otherwise marked for case)

The most distinctive notion in Marantz's system is his idea of "dependent cases", such as accusative and ergative. He proposes that they are assigned by the following rule:

(2) Dependent case is assigned by V+I to a position governed by V+I when a distinct position governed by V+I is:

a. not "marked" (does not have lexically governed case)

b. distinct from the chain being assigned dependent case.

He then says that dependent case assigned up to the subject is what is normally called ergative case, whereas dependent case that is assigned down to the object is what is known as accusative case. In this theory, individual functional heads play no direct role in case assignment, although they might play an indirect role in helping to define the domain in which the two distinct NPs must both be found, as I does in the formulation in (2). In addition to 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.

These two conceptions of how morphological case is assigned have been conceived of as rivals, 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 directly by functional heads in Chomsky's way, whereas other cases are assigned by configurational algorithms like Marantz's (2). 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 (3).

(3) a. Min kel-li-m.
I.NOM come-PAST-1sS
'I came.'

b. Masha aqa-ta yt-y kör-dö.
Masha(GEN) father-3sP(NOM) dog-ACC see-PAST.3sS
'Masha's father saw the dog.'

c. Masha Misha-qa at-y bier-de.
Masha(NOM) 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 Marantz-inspired configurational rules stated in (4).

(4) a. If there are two distinct NPs in the same VP-phase such that NP1 c-commands NP2, then value the case feature of NP1 as dative unless NP2 has already been marked for case.

b. If there are two distinct NPs in the same phase such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case.

These rules are Marantzian in that what is crucial for the assignment of these cases to a given nominal is whether or not there is a second nominal not already marked for case in

the same domain, and if so what structural configuration holds between the two nominals. No direct role is attributed to functional categories. In stating the accusative rule as in (4b), we make explicit that by "object" in this framework we mean the structurally lower of the two core NPs of a clause in the sense of c-command, prior to or abstracting away from movement. One significant update is that we replace Marantz's use of V+I as defining the domain of dependent case assignment with the more contemporary notion of a phase as the unit of syntactic derivations in (approximately) the sense of Chomsky (2000, 2001) and related work; we return to the implications of this below. Finally, following up on a suggestion of Bobaljik and Branigan (2006) for Chukchi, we extend Marantz's notion of dependent case to apply to some instances of dative case in Sakha as well: just as ergative is assigned to the higher of two NPs (the subject) in a clause, so dative is assigned to the higher of two NPs in a VP phase, we claim. (Marantz himself did not discuss dative case in any detail; he implicitly treats it as a lexically governed case—as is appropriate for many if not all instances of dative case in Icelandic.)

In contrast, we claim that nominative and genitive should *not* be treated as unmarked or default cases in the sense of Marantz's (1); nor are they another kind of dependent case. Rather, functional categories are integrally involved in the assignment of these cases in Sakha, just as in the standard Chomskian conception. This modality of case assignment is stated explicitly in (5), which synthesizes the discussion in Chomsky 2001:4-6 into a single statement (and narrows it to apply to T and D only); see also the closely related discussion in Chomsky 2000:121-124.

(5) If a functional head F $\in$ {T, D} has unvalued phi-features and an NP X has an unvalued case feature [and certain locality conditions hold], then agreement

happens between F and X, resulting in the phi-features of X being assigned to F and the case associated with F (nominative or genitive) being assigned to X.

If we are right about this, then the distinctive elements of two prior theories are combined within the grammar of a single language.

There is an obvious superficial difference between the two types of case in Sakha that gives our position some a priori plausibility. The Chomskian approach is designed to capture the intuition that case and agreement are two 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 in lockstep with having subject agreement on the finite verb (see (3a-c)), and having a genitive NP in a DP goes in lockstep with having possessive agreement on the noun ((3b)). This is built into (5). But there is no overt object agreement to flag a relationship between an NP with accusative or dative case and any particular functional head in Sakha. One can of course assume that a v agrees with the object covertly in Sakha as Chomsky assumes for English. But it is also possible that the lack of overt agreement with accusative or dative NPs is telling us something theoretically more significant, making it not implausible that accusative and dative case are assigned in a different way from nominative and genitive. We present morphosyntactic arguments that this is correct.

We develop our argument as follows. First we provide some background information in section 2. We then concentrate on the rules that assign accusative and dative case in (4), showing a range of phenomena that they account for and pointing out why these are best treated as dependent cases in Marantz's sense (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 nominative and genitive case should be treated as default cases or unmarked cases in Marantz's sense, arguing that the answer is no (section 4). In contrast, the Chomskian rule in (5) works very nicely in all the places where the Marantzian approach fails. We conclude that there are two modes of case assignment coexisting peacefully in Sakha, and close with some tentative remarks about how they might be integrated into a single coherent case theory.

Throughout this paper, we keep attention almost exclusively 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 within and across languages. Case has already been the subject of many rather wide-ranging studies, and we think that new detailed language-particular studies are what is needed to advance understanding in this area.

Finally, we must clarify from the outset that, in addition to the specific principles that assign particular cases in (1) and (2), Marantz's (1991) overall conception of Case theory differs from the Chomskian one in two significant ways. First, Marantz argues that case assignment to NPs is completely independent of how overt NPs are licensed. In effect, this means there is no Case filter, and no sentence is ever ruled out simply because an NP fails to get case, unlike in Chomsky's approach, which is ultimately rooted in a suggestion by Jean-Roger Vergnaud. Second, Marantz (1991) assumes that the case

assignment rules apply in the PF branch of the grammar, whereas Chomsky assumes that case assignment happens in the narrow syntax. As far as we can see, these three theoretical claims are logically independent of each other. Since ours is a hybrid view, we need to clarify who we follow in these other respects. In fact, we side with the Chomskian tradition on both counts. We hold that both (4) and (5) happen in the narrow syntax, and that they interact with one another, as well as with processes of agreement and movement (see also Legate 2008). We also hold that NPs do need to be assigned case by either (4) or (5) (or by a lexical case assigner, such as a postposition), and if some NP slips through the cracks, the structure is indeed filtered out. Evidence for these views is pointed out along the way, but we do not treat them as the primary focus of inquiry, and the reader can take them (for now) as choices of expository convenience.

2. Some background on Sakha

Sakha is a rather typical head-final language with agglutinative morphology, fairly free word order, and extensive consonant and vowel harmony. In these superficial respects, it is not unlike its better-known relative, Turkish. Much information about this language can be gleaned from Vinokurova 2005, which we build on and follow in many particulars, especially her investigation of accusative case.[2] See also Krueger 1962 and Stachowski and Menz 1988 for some basic information about the language.

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 undergoing phonological changes. As in many languages, NPs in nominative case bear no overt case affix. We assume nevertheless that these NPs are assigned case in the syntax, an assumption we justify 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 (3b) with nominative *Masha* in (3c)). But there is one significant 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 (3b)). 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:

(6) 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.

Sakha also has several inherent cases: ablative, instrumental, comitative, and so on. These are related to particular semantic roles, and do not participate in syntactic alternations. Like most 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 lexically governed cases (see (1a)) 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. (These bear locative case in other Turkic languages, but locative case was also lost in Sakha.)

3. The configurational case marking of objects

With this background in hand, we are ready to begin our theoretical investigation by demonstrating the virtues of the configurational rules for the assignment of dative and accusative case given in (4). 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 treating these cases as dependent cases 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. (3) presented some examples; (7) gives another set.

(7) 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 (4). In sentences like (7c) there are two NPs inside the VP. Therefore the structurally higher one—the goal argument—is marked dative by (4a).[3] In sentences like (7b) there is only one NP in the VP domain, the subject being generated outside VP in Spec, vP. Therefore, (4a) does not apply. The clause as a whole does contain more than one NP, however. Hence (4b) applies on the CP phase, marking the lower NP (the direct object) as accusative.

A detail of the rules in (4) 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 accusative case marking. The accusative case marker *–(n)I* only appears on NPs that receive a definite or specific interpretation; when the thematic object is a nonspecific indefinite, then it bears no case suffix, as shown in (8).

(8) a. Erel kinige atyylas-ta. (Vinokurova 2005:322)
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 (4), where we assume that the locality domains in which case competition is evaluated are phases in something like Chomsky's sense. There are two phases in an ordinary clause, CP and (let us assume) VP.[4] 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 (4) (see (9a)). In contrast, definite and specific objects undergo object shift out of VP, in order to escape the domain of existential closure, as in 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, as in (9b). (Notice that it does not matter here whether the subject moves to Spec, TP or not.)

(9) a. [[$_{vP}$ Erel [$_{VP}$ book buy] v] T] (=(8a))
phase 1 phase 2

b. [[$_{vP}$ Erel [$_{VP}$ book-ACC [$_{VP}$ t buy] v] T] (=(7b))
phase 2 phase 1

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 (10) is typical in this respect.

(10) 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 (9b) has happened or not—and that this movement determines the case marking in the manner described by (4b). (One complication is that accusative case marking on the post-adverbial object in (10b) is not strictly impossible, but it 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 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:

(11) 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).) (4a) then assigns dative to the goal on the VP cycle. (4a) is ordered before (4b) by very general 'Elsewhere' considerations, because the context of (4a) is more specific than that of (4b); (4a) applies only to one kind of phase (VP), whereas (4b) applies to any phase. When (4a) applies, it bleeds the application of (4b) in the VP cycle: once the higher NP has dative case, it is marked for case, and hence does not trigger dependent case on its phase-mate, the theme. 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 (4b) never holds, and accusative case is not assigned. The result is sentences like (11a). 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 (4b). The derivations of examples like (11a) and (11b) are thus shown in (12a) and (12b), respectively.

(12) a. [[$_{vP}$ Erel [$_{VP}$ Masha-DAT book give] v] T] (=(11a))
phase 1 phase 2

b. [[$_{vP}$ Erel [$_{VP}$ book-ACC [$_{VP}$ Masha-DAT t give] v] T] (=(11b))
phase 2 phase 1

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:

(13) 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 (4b) to apply and mark it accusative. One might think that (4b) simply cannot apply to an NP that already has a valued case feature, but we will see that this is not always true in Sakha when we come to raising constructions in sections 3.5 and 3.6. Instead, we say that the goal NP can in principle be remarked for accusative case, giving a syntactic representation like [[NP-DAT]-ACC], but only the innermost of two overt case markings is spelled out morphologically in Sakha, so this surfaces simply as NP-DAT. This is a language-particular constraint, in that some other languages do allow one case marker to be stacked on another (e.g., Quechua, Korean). It then follows from this additional assumption 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 (14).

(14) 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 (14), as in (3b). The issue here is that (4b) might

predict accusative case marking on the subject if the object moves directly to the highest position in the clause. We can appeal to phase theory to rule out this kind of direct movement. Chomsky's (2000, 2001) Phase Impenetrability Condition (PIC) says that an 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 (14) must thus have a representation like (15).

(15) $[_{TP}\ [_{NP}$ village-ACC$]\ldots[_{vP}$ robbers $[_{VP}$ <village> $\boxed{[_{VP}$ <village> raid$]]}$ v $]$-PAST $]$
phase 2 ACC phase 1

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'. We assume that the rules in (4) apply immediately when the configurations they describe are first created—in this case, at the point of the derivation when 'village' is at the edge of VP and the subject has just been merged into Spec, vP for the first time. Assuming strict bottom-up derivations, it is impossible for the object to move higher than the subject before the subject has been merged, so the thematic object must be the lower NP at the first point when (4b) could apply. (4b) then assigns it accusative case—a feature assignment that can never be removed.[5] If and when the object moves to a position that c-commands the subject, it does not induce accusative case on the subject because the c-commanding NP has already been marked for case (see the last clause of (4b)). Thus, the scrambled object does not trigger accusative case on the subject for the same reason that a dative NP does not trigger accusative on a theme NP that stays inside VP. 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 also does not make possible accusative case on the subject in Sakha.

Of course, these data do not distinguish the dependent case theory of accusative and dative case from the view that accusative case (and dative?) 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 (4) are contenders.

3.2 Case marking of thematic subjects

An elementary consequence of a case competition account like (4) is that truly monadic predicates should never have accusative or dative case arguments in Sakha. This follows because the rules in (4) 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 a language like Icelandic, which has a good number of one-place predicates with quirky-case subjects.[6]

(16) Masha-(*qa/*ny) accykt(aa)-yyr.
Masha-(*DAT/*ACC) hunger-AOR.3sS
'Masha hungers.'

In contrast, the rules in (4) 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 (4a) 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 (17).[7]

(17) Ejiexe massyyna tiij-bet/ baar/ naada.
you.DAT car reach-NEG.AOR.3sS/ exist/ need
'You lack/have/need a car.'

These examples can look superficially like examples with predicates like *üŋ* 'pray to', *toŋxoj* 'bow to', *kömölös* 'help', which have a nominative subject and a dative "object":

(18) Min presidieŋ-ŋe kömölöh-ö(r)-bün.
I.NOM president-DAT help-AOR-1sS
'I help the president.'

While (17) and (18) give what seem to be pragmatically neutral word orders, word order is not a perfect guide to base structure in Sakha, given the language allows a certain amount of scrambling. There is, however, evidence from anaphor binding that the dative argument asymmetrically c-commands the nominative argument in the base structure of (17), whereas it is the other way around in (18). The sharpest contrasts are seen when the first NP in linear order contains a reflexive anaphor and the second NP is a *wh*-word that is intended to bind that anaphor. Under these circumstances, it is clear that the dative argument can bind into the nominative argument with a predicate like 'need', but the nominative argument cannot bind into the dative argument, whereas exactly the opposite pattern is seen with a verb like 'help':

(19) a. *Beje-tin ije-ti-ger kim naada?
self-3s.GEN mother-3sP-DAT who need
'Who does his/her own mother need? Who is needed by his/her mother?'

b. Beje-tin oqo-to kim-iexe naada?
self-3s.GEN child-3sP(NOM) who-DAT need

'Who needs his/her own child?'

(20) a. Beje-tin oqo-tu-gar kim kömölös-tö?

self-3s.GEN child-3sP-DAT who help-PAST.3sS

'Who helped his/her own child?'

b. *Beje-tin ije-te kim-iexe kömölös-tö?

self-3s.GEN mother-3sP(NOM) who-DAT help-PAST.3sS

'Who did his/her own mother help? Who was helped by his/her own mother?'

That the nominative argument in (19b) can be bound into by the dative question word that follows it suggests that it can be reconstructed into a base position lower than the dative argument. This binding is not possible in the superficially similar (20b), showing that the nominative here is a true subject, higher than the dative argument at all levels of representation. Conversely, that the dative argument in (20a) can be bound into by the nominative question word that follows it shows that it can reconstruct into a lower base position, whereas the analogous binding is not possible in the superficially similar (19a). That shows that the dative argument in (19a) is structurally higher than the nominative one at all levels of representation. Assuming that it is generated in Spec, VP(/AP) rather than Spec, vP (it is not, after all, an agent), the needer/haver/lacker argument in (17) can get its dative case from (4a). Notice also that the lower argument (the needed one) in these sentences is not accusative but rather nominative; this shows once again that when (4a) applies it bleeds the application of (4b), as we saw also in our discussion of (11a).

We note in passing that the rule in (4a) *cannot* account for the dative case of the internal argument in sentences like (18). We analyze this as an instance of lexically governed dative case being assigned by a null postposition. This analysis 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 therefore follow Emonds (1985), McFadden (2004) and others and assume that Sakha has null Ps with locative, temporal, and benefactive meanings that assign dative case, and (18) contains one of these. Some additional evidence in favor of this view comes from agentive nominalizations, as discussed in section 3.4.

There is one other, more productive circumstance in which a thematic subject receives accusative or dative case: namely, morphological causative constructions. Sakha has a productive causative suffix *–t/-tar* that attaches to many types of verb root. Vinokurova (2005:306-312, 352-359) shows that, as in many other 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:[8]

(21) a. Sardaana Aisen-y/*Aiseŋ-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 (4). Agent phrases are usually the highest NPs in the clause, and they are not 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 a 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 and 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).

(22) a. [[$_{vP}$ Sardaana [$_{CausP}$ Aisen [$_{VP}$ cry] cause] v] Past]
phase 2 (ACC) phase 1

b. [[$_{vP}$ Masha [$_{CausP}$ Misha [$_{VP}$ soup eat] cause] v] Past]
phase 2 DAT (ACC) phase 1

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 dependent case in Sakha.

Although this range of facts fits well with our configurational rules of case assignment, there are also 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 case assignment in more familiar languages—areas in which the advantages of (4) 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 no case competitor for the theme argument in the CP phase (or the VP phase), and it is not marked accusative by (4b).

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 well-known contrast **The ship sank to collect the insurance* vs. *The ship was sunk to collect the insurance*). Given that the agent can be present in the passive—for concreteness, say it is an uncontrolled PRO 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).

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 in syntax: 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 agent argument in the syntax:[9]

(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 (4b) 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 (intentionally) [$_{VP}$ cup-ACC [$_{VP}$ t break]] PASS] past]

Notice that we assume crucially that the covert subject in (26b) can still count as a case competitor for the object, even though it is not realized at PF and (presumably) it does not itself undergo case marking. Languages might well differ somewhat on this point, as to precisely which noncanonical NPs are and are not visible for the rules in (4), but in Sakha this sort of covert NP apparently is visible.[10]

This account can be compared to the standard Chomskian 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 theory of dependent case like (4). The data suggest that it is not which functional heads are present that is crucial, but whether a second noun phrase is present, and (4) expresses this 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.3sS) 'Masha was sent a letter.')[11]

This pattern is explained by the rules in (4). Using a passive v rather than an active one can affect whether there is an agent argument in vP. 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. It thus 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 in Spec of the passive voice phrase—exactly as in simple transitive structures with no third argument:

(28) [[$_{vP}$ (PRO) [$_{VP}$ letter [$_{VP}$ Misha <letter> send]] PASS] PAST]
(ACC) DAT
phase 2 phase 1

There is thus no need to stipulate that passive morphology "absorbs" accusative case but not dative case in our theory, as there was in 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 (4)—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 Vinokurova notes one striking difference: unlike in English, the thematic object of an agentive nominalization can have accusative case, as shown in (29).

(29) a. Masha [ynaq-y kör-ööccü-nü] najmylas-ta
Masha cow-ACC watch-AG.NOML-ACC hire-PAST.3sS
'Masha hired a herder for the cow.'

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 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, which 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 no more verbal agentive nominalization 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 inside agentive nominalizations:

(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 (no adverb)
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.'

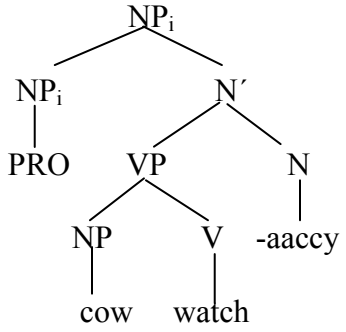
b. *Suruj-um-aaccy kel-le. (no negation)
write-NEG-AG.NOML come-PAST.3sS
'The one who doesn't write came; the non-writer came.'

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, Vinokurova (2005) and Baker and Vinokurova (2008) analyze *–aaccy* as a nominal head that selects a VP complement and no more. We may suppose that agentive nominalizations have the structure in (32).

(32)



Here the nominalizer *–aaccy* is conceived of as an intrinsically nominal counterpart to the verbal head v. Like v, it allows the agent of the verb 'watch' to be projected in its specifier, but unlike v that specifier must be a null category which is interpreted as a variable, making the constituent as a whole predicate-like rather than proposition-like. The open position is then bound by an iota-operator (or other D-like meaning), contributed either by a null D or by semantic default. The meaning of (32) is thus something like ιx Gen(e) [watch(e) & Theme (e, cow) & Agent(e, x)]—an appropriate meaning for an agentive nominalization.[12] We assume that there is no significant difference between agentive nominals in English and Sakha in these respects.

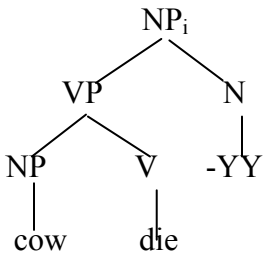
One consequence of the structure in (32) is that there is thus no v that can assign accusative case to the NP object in accordance with the Chomskian case theory. For English, this is a good result; it can contribute to an explanation of why one says *an*

admirer of her, not *an admirer her*. But accusative case is possible in this context in Sakha, and the difference can be explained if (4b) defines the way that accusative case is assigned in this language. This rule crucially does not depend on certain functional categories being present. There is, however, another NP in the same local domain as the object—the null agent—and that triggers accusative case on the object, just as the null agent does in certain passive clauses.[13] The dependent case 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.

The significance of there being a covert NP expressing the agent argument in an agentive nominal is underscored by comparing them with event nominals like the one in (33a), which has the partial structure in (33b).[14]

(33) a. Ynax-(*y) öl-üü-(te) miigin sohup-pat
cow-ACC die-EV.NOM-(3sP) me.ACC surprise-NEG.AOR.3sS
'The death of the cow does not surprise me.'

b.



(33b) and (32) are similar in various respects: both have a VP constituent that contains the verb root and its theme argument, and this VP serves as the complement of a nominalizing morpheme. However, accusative case can be assigned to the theme argument in (32) but not in (33b). The difference is that there is clearly an agent role

implied in the semantics and hence (we assume) present in the syntax in the agentive nominal but not in the eventive nominal. That representation of the agent is the crucial factor for making accusative case assignment happen to the theme under our analysis.

Note that (32) contains a VP node, which should count as a separate phase from the nominal as a whole. Technically, then, the object NP should only get accusative if it shifts to the edge of this VP; if it does not, it should remain unmarked by (4b). We thus expect to observe essentially the same differential object marking in agentive nominalizations that we do in ordinary clauses in Sakha. This is correct: the theme NP can be accusative, as in (29), or it can be bare, as in (34), the difference having to do roughly with whether the herder is charged with taking care of a specific cow or not.

(34) Masha [ynax kör-ööccü-nü] najmylas-ta
Masha cow watch-AG.NOML-ACC hire-PAST.3sS
'Masha hired a cowherd.'

This shows that the accusative case found in nominals is not some kind of inherent case, distinct from the structural case found in clauses. If it were, one would not expect to see the same case alternation in the two domains.

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 NPs in the VP. (35) shows that dative case is indeed possible on the goal argument when an agentive nominalization is formed from a ditransitive verb.

(35) 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, though, that when we consider dyadic verbs with a dative internal argument like 'help' (see (18)), we find a contrast that is not apparent in the clausal domain. For such verbs, including the dative argument in the nominalization is awkward at best:

(36) ??presidieŋ-ŋe kömölöh-ööccü

president-DAT help-AG.NOML

'the helper of the president'

We take the contrast between (35) and (36) to be support for our case assignment rule in (4a), 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 (35), but not in (36); 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 claimed that th3y do not have structural dative case assigned by (4a), but rather lexical dative case assigned by a null P. 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 presumably ruled out for the same reason. This ban on PPs implies that the only kind of dative case that can appear inside a nominalization is structural dative case. The contrast between (35) and (36) 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 dependent case account of accusative case in Sakha: the "raising to object" construction described in some detail

but not fully explained in Vinokurova 2005:sec. 6.10. (See George and Kornfilt 1981, Moore 1998, Şener 2008 and references cited there for similar—but not identical—constructions in Turkish.) Vinokurova shows that the subject of certain kinds of embedded clauses can be marked with accusative case. This is possible with finite and nonfinite clauses, both of which have agreement on the embedded verb:[15]

(37) a. Min ehigi/ehigi-ni bügün 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 bügün 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.'

We assume that the accusative subjects in (37a) and (37b) are "raised" from their usual position inside the embedded CP to a position where they can get accusative case in the matrix clause—as least as high as merging with the embedded CP, given Chomsky's PIC; see also Şener 2008 on Turkish. The obvious alternative would be to say that the accusative NP in (37) is base generated in the matrix clause, as some kind of argument of the matrix verb 'hope' or 'hear' and this object simply binds a coreferential (pro-dropped) pronoun in the lower subject position. On this alternative analysis, the most accurate gloss for (37b) would be 'I heard of you that you won today.' This "proleptic object" analysis is indeed correct for some examples in Sakha—but not for all. Taken by itself, it does not account for the contrast in (38), for example.[16]

(38) a. Min kim-i daqany kyaj-ba-ta dien eren-e(r)-bin.
I who-ACC PRT win-NEG-PAST.3sS that hope-AOR-1sS

'I heard that nobody won (the lottery).'

b. Min kim-i daqany kyaj-bataq-yn ihit-ti-m

I who-ACC PRT win-NEG.PTPL-3sP.ACC hear-PAST-1sS

'I heard that nobody won (the lottery).'

c. * Min kim-ŋe daqany kel-bet dien et-ti-m

I who-DAT PRT come-NEG.AOR.3sS that tell-PAST-1sS

'I told no one to come' (lit. I told anyone that he should not come).

'Who PRT' in Sakha is a kind of negative polarity item (NPI) which can only be interpreted in the scope of negation. As expected given this, (38c) is bad because the dative object of the matrix verb is not in the scope of the negation associated with the embedded verb (even though it binds a pronoun inside the embedded clause). If all the "raised" accusative case marked NPs in question were really arguments of the matrix verb, then the examples in (38a) and (38b) should be ruled out on the same grounds (cf. **I heard of anyone that he did not win* in English). But they are possible. This tells us that these examples have a derivation in which the thematic subject of the embedded clause moves to a high enough position to get accusative case in the matrix clause, while still being able to reconstruct back to its original position so as to be interpreted under the scope of lower clause negation at LF. Therefore, these examples must have a derivation that involves movement from the lower clause.

Given this assumption, it might seem at first that either the dependent case theory or the Chomskian theory could explain the accusative case marking on the subject. Within the dependent case theory, raising the subject to the edge of the embedded CP places it in the same phase as the subject of the matrix clause.[17] Rule (4b) 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 they attribute the effect to the PIC in similar ways.

What is striking, however, is that this sort of "raising" can take place even when there is no functional head in the matrix clause that could be the source of accusative case. (39) 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.

(39) 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 (39). Similarly, (40) 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 syntactically present agent argument.

(40) Sargy kim-i daqany tönn-üm-üö dien erenner-ilin-ne.
Sargy who-ACC PRT return-NEG-FUT.3sS that promise-PASS-PAST.3sS
'Sargy was promised that nobody 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 dependent case view easily accounts for the data in (39) and (40). 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. Particular functional heads do not come into the account; all that matters is that there is another noun phrase in the matrix clause.

It is also possible for an NP to get accusative case by moving to the edge of an adjunct clause, as shown in (41), from Vinokurova 2008:368.[18] 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.

(41) a. Masha [Misha-ny kel-ie dien] djie-ni xomuj-da.
Masha [Misha-ACC come-FUT.3sS that] house-ACC tidy-PAST.3sS
'Masha tidied up the house (thinking) that Misha would come.'

b. Masha Kesha-qa [Misha-ny aaq-ya dien] kinige-ni bier-de.
Masha Kesha-DAT [Misha-ACC read-FUT that] book-ACC give-PAST.3sS
'Masha gave Kesha the book so that Misha would read it.'

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 (41). 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 (3c) and (7c).) In contrast, the case assignment rule in (4b) 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, neither of which c-commands the other, but both of which are c-commanded by a third NP (the subject) which is base-generated in that higher domain. Then both will be marked for accusative case. That is what we see in (41), where subject raising and object shift both feed accusative case assignment in the same clause.[19]

There is one very instructive situation in which a subject raised out of a complement 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, but the raised NP in these circumstances must be unmarked for case, not accusative:

(42) a. Bügün munnjax-xa Masha-(*ny) [ehiil Moskva-qa bar-ya
today meeting-DAT Masha-(*ACC) [next.year Moscow-DAT go-FUT.3sS
dien] cuolkajdan-na.
that] become.certain-PAST.3sS
'It became clear today at the meeting that Masha'll go to Moscow next year.'

b. Aisen-(*y) [massyyna atyylah-ar-a] naada buol-la.
Aisen car buy-AOR-3sS need be(come)-PAST.3sS
'It became necessary for Aisen to buy a car.'

Thus while the transitivity of the matrix verb is not crucial to the licensing of accusative case, it is crucial that there be another thematic NP in the matrix clause. This is important evidence in favor of the dependent case account based on (4).

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 to get accusative case, the other internal argument of 'promise' cannot be marked accusative, but must be marked dative:

(43) Sargy Keskil-i [kim daqany kel-im-ie dien] erenner-de.
Sargy Keskil-ACC who PRT come-NEG-FUT that promise-PAST.3sS
'Sargy promised Keskil that nobody will come.'

(44) Sargy Keskil-ge/*i kim-i daqany [- kel-im-ie dien]] erenner-de.
Sargy Keskil-DAT/*ACC who-ACC PRT come-NEG-FUT that promise-PAST
'Sargy promised Keskil that nobody 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 (4a) thus apply, and dative case is assigned to the NP argument of 'promise'. The same NP raising that can trigger accusative case marking on the embedded subject thus creates the environment for dative marking on the other internal argument of 'promise'. In contrast, the adjunct clauses in (41) 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 (45).

(45) 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 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:

(46) 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:

(47) 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 (4a), 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

hypothesize that the landing sites for the two types of possessor raising are slightly different. In one type, the possessor raises to a position that is high in VP but still fully contained in VP, such as Spec, VP ((48b)). In the other type, the possessor raises higher, to the edge of VP or out of the VP phase all together ((48a)).

(48) a. [$_{TP}$ Misha$_i$ Adverb1 [$_{VP}$ Adverb2 [$_{DP}$ t$_i$ [$_{NP}$ horse] D+AGR] die] PAST]
--
Phase 2 Phase 1

b. [$_{TP}$ Adverb1 [$_{VP}$ Misha$_i$ Adverb2 [$_{DP}$ t$_i$ [$_{VP}$ horse] D+AGR] die] PAST]
DAT
Phase 2 Phase 1

In (48b), *Misha* receives dative case in the VP phase, by (4a). In contrast, there is only one NP in the VP phase in the (48a) structure, so dative case assignment does not apply. Moreover, the theme argument remains in VP this construction (it appears after manner adverbs), where it gets nominative case from T under agreement (see section 4). As a result, there is only one NP in the CP phase as well (the raised possessor), so accusative case is not assigned either; the raised NP simply retains the case (genitive) that it was assigned to it in DP before movement. These two structures give us the two case patterns that we observe in (46), 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. The data 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':

(49) a. Beqehee 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) beqehee/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 (48b). 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 (4a).

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 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 specified as assigning a lexically governed case, whether genitive (*kurduk*, like; *tuxary*, during; *nöŋüö*, through), dative (*dieri*, until; *dyly* 'like'), ablative (*taxsa* 'over, beyond; *syltaan*, because of), or accusative (*byha* 'during', *kytta* 'with' and *nöŋüö* 'over'). This is of no particular interest for our investigation into structural case assignment.

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

(50) 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 (4b). 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:

(51) 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 follows given that accusative is a dependent case. In (50) there is another NP which can function as the case competitor for the object of P, licensing accusative, whereas in (51) there is not. The contrast between (50) and (51) is strongly reminiscent of the contrast between raising a subject into a matrix clause that has its own subject ((39)) as compared to raising a subject into a matrix clause with a subjectless impersonal predicate ((42)). Like those sentences, the contrast between (50) and (51) 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 (50). 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. 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 this sort of 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.[20] When the PP is a phase, its object is in a different phase from the subject of the clause, so the

accusative case marking rule does not apply. 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 (50), then accusative case is assigned to the object of P by (4b). If the matrix CP does not contain another DP, as in (51), accusative case marking does not take place. 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. The assignment of nominative and genitive case

So far we have argued in detail that accusative case and dative case are dependent cases in the sense of Marantz 1991: they are assigned to an NP if and only if there is another NP, not itself marked for case, in the same local domain (phase). Now we turn to nominative case in Sakha, to see how that fits into the picture. It is clearly not a dependent case, because it can appear on the only NP in the entire sentence, as in a simple matrix clause with a purely intransitive verb. Within Marantz's theory, then, nominative would have to be either a default case or an unmarked case (see (1)). In this section, we show that neither of these views does justice to the facts of Sakha. In particular, the view that nominative is default case fails in a variety of situations. The view that nominative is an unmarked case, assigned only in clausal domains of some sort, seems more promising. But careful consideration of clauses built around a participial verb forces us to refine the notion of clause. It turns out that nominative is assigned if and only if the domain has a T-like functional head that bears agreement—and only if that head actually agrees with the NP in nominative case. This raises the question of *why* this is the right notion of a domain, and the Chomskian Case theory provides an obvious answer: because the T-like head actually assigns nominative case to the NP under

agreement. This result also generalizes to an NP with genitive case and the D-like head that agrees with it. Hence the Marantzian view of nominative and genitive as unmarked cases is either wrong for Sakha, or it converges with the Chomskian view stated in (5).

4.1 Nominative is not a default case

Marantz (1991:24) rather boldly asserts that every language has a default case, writing:

> Finally, there is a general default case in the language when no other case realization principle is applicable. … A sentence will never be ungrammatical because no case features are assigned to a CASE affix; there will always be a default case realization. Thus case, like morpho-phonology in general, merely interprets syntactic structures and does not filter them.

If we try to implement this view for Sakha, then nominative is the obvious choice for the default case. First it is unmarked in the morphological sense that there is no suffix that signals explicitly that the NP has nominative case. More importantly, bare/nominative NPs seem to occur in a disparate set of environments, wherever no more specific case rule applies. For example, the subjects of clauses of all sorts are bare-nominative forms, including reduced participial clauses used as relative clauses in Sakha, which do not have a true T node ((52a)). Objects that have not moved out of VP are also bare-nominative, as in (52b), and so apparently are the objects of Ps that do not govern a lexical case when the PP counts as a phase, as in (52c).

(52) a. [$_{PtplP}$ Masha atyylas-pyt] at-a
Masha buy-PTPL horse-3sP
'the horse Masha bought' (Literally: *the horse Masha having-bought*)

b. Masha [$_{VP}$ türgennik salamaat sie-te].

Masha quickly porridge eat-PAST.3sS

'Masha ate porridge quickly.'

c. Masha [$_{PP}$ djie tula] türgennik süür-de (=(50b))

Misha house around quickly run-PAST.3sS

'Misha ran quickly around the house.'

If nominative is a default case in Sakha, we would expect to find nominative NPs in phases of all kinds—clauses, VPs, and PPs—whenever there is only one NP in that phase. That is just what we seem to see in (52). These data could even invite the somewhat more radical view that what is traditionally called nominative is actually the absence of case in Sakha, and there is no Case filter that insists that NPs must be assigned case in order to be licensed syntactically.

On a closer look, however, this simple and natural-sounding view unravels. Consider first the apparent instances of nominative NPs in PPs in Sakha. In fact, such NPs bear genitive case, not nominative case. In most situations, the two case forms look identical, but they are distinct when the NP is possessed (section 2). Then the exponent –*n* must appear on the possessed noun, showing it to be genitive rather than nominative:

(53) a. Masha djie-tin tula itii. (*djie-te)

Masha house-3sP.GEN around hot house-3sP.NOM

'It is hot around Masha's house.'

b. Masha oloppoh-un utary tymnyy. (*oloppoh-o)

Masha chair-3sP.GEN opposite cold chair-3sP.NOM

'It is cold opposite the window.'

Indeed, *all* apparently unmarked NPs in PP turn out to have genitive case rather than nominative case by this test.

Now why can't the object of a P ever be nominative in Sakha? If nominative is a default case, available in any syntactic context, this is something of a surprise. Of course, default nominative case would not surface on the object of a P if that P governs a lexical case, since lexical case takes priority over default case according to Marantz's disjunctive case marking procedure in (1). But we have reason to think that 'around', 'opposite', and 'until' do not (need to) assign lexical case, because their object can show up with dependent accusative case when circumstances are right (see (50)). Since these Ps do not have to assign lexical case, and the context for accusative case is not met in (53), default nominative case should be a possibility. The fact that it is not suggests both that NPs need to be assigned some kind of case and that nominative case is not so freely available.

Consider next the bare indefinite NPs inside VP in examples like (52b). These are truly unmarked for case, never showing an exponent of genitive case. But there are some restrictions on them that suggest that default nominative is not freely available in this environment either. Thus, consider the possibility of a construction in which the theme argument is not the lowest element inside VP. In binary branching accounts descended from Larson 1988, it is common to assume that resultative phrases of various kinds are generated as the complement of V, whereas the theme argument is generated as the Specifier of V, where it asymmetrically c-commands the resultative. Structures of this sort exist in Sakha, where the resultative phrase can be a goal-denoting PP or an AP.

(54) a. Misha kumaaqy-ny xoruopka-qa uk-ta.
Misha paper-ACC case-DAT put-PAST.3sS

'Misha put the paper in the case.'

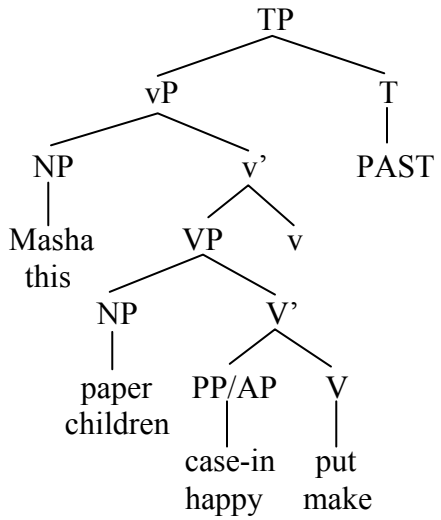
b. Bu oqo-lor-u djolloox oŋor-but-a.

this child-PL-ACC happy make-PAST-3sS

'This made the children happy.'

These are expected to have approximately the structure in (55).

(55)



Evidence that the AP rather than the NP is the complement of V in (54b) is the fact that the AP must be left-adjacent to the verb. PPs can move around somewhat more freely, but Barss-Lasnik-Larson c-command tests can be used to show that the theme argument c-commands the PP argument in the base structure of (54a), and not vice versa.

The interesting question, then, is what happens when the theme argument in sentences like these is a nonspecific indefinite, the kind of NP that is interpreted inside the VP in Diesing's (1992) proposal. Given the default case hypothesis, this should be perfectly possible: the NP stays inside VP (perhaps following a VP adverb), accusative case assignment does not happen because the subject and the object are never in the same

phase, and the theme NP gets default nominative case (or gets no case at all, but does not need it). But in fact, examples like the following are ungrammatical:

(56) a. *Misha (serenen) kumaaqy xoruopka-qa uk-ta.
Misha carefully paper case-DAT put-PAST.3sS
'Misha put papers in the case (carefully).'

b. *Bu oqo djolloox oŋor-or
this child happy make-AOR.3sS
'This makes a child happy.'

The badness of these examples points again to the twin conclusions that NPs need to be assigned case and that nominative case cannot be assigned freely; in particular it cannot be assigned inside VP.

Of course we now need another account of the acceptability of examples like (52b) and others discussed in section 3.1. A salient difference between the good examples and the bad ones is that the bare theme NP is adjacent to the verb in (52b), but not in (56). Confirmation that this is an important factor comes from the fact that (56a) becomes grammatical when the PP moves rightward, so that the object is linearly adjacent to the verb (recall that resultative APs cannot move around in this way):

(57) Misha serenen xoruopka-qa kumaaqy uk-ta.
Misha carefully case-DAT paper put-PAST.3sS
'Misha carefully put a paper/papers in the case.'

We believe that this shows that indefinite objects in Sakha satisfy or avoid the Case filter by entering into a (pseudo)-incorporation relationship with the verb. Incorporation relationships of this kind 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 be strictly adjacent to the verb. Probable additional evidence for this is that case-less objects form a single intonational contour with the verb, much as Mohanan 1995 describes for Hindi. We cannot investigate the syntax of pseudo-incorporation further here.[21] We can, however, see that there is evidence here that the Case filter applies in Sakha, even though pseudo-incorporation is a way of satisfying it.

Overall, then, nominative case is not as freely available in Sakha as one might have thought. In particular, it seems not to be assignable inside a PP or a transitive VP. This shows that it is not an unrestricted default case in Marantz's sense after all.

4.2 Nominative is not an unmarked case

The facts considered so far could be addressed within Marantz's assumptions by treating nominative as an *unmarked* case, rather than as a default case. Marantz's discussion of unmarked case is very brief. He simply states the following (p. 24):

> Unmarked case may be sensitive to the syntactic environment; for example, in a language GEN[itive] may be the unmarked case for NPs inside NPs (or DPs) while NOM[inative] may be the unmarked case inside IPs.

The idea thus seems to be that there could be case marking rules such as "Assign nominative case to any NP contained in IP (i.e., in a CP phase) that is not already case marked." This rule suffices to assign nominative case to all kinds of subjects, but does not apply inside a VP phase or a PP phase. Coupled with the Case filter and the absence of a true default case, this could account for the facts reviewed in the previous section.

To evaluate this idea, then, we need to check more thoroughly whether it is true that subjects of clauses always get nominative case or not. For truly finite clauses, such

as those with a past tense T (spelled out as *–dI*), this is true: they can always have an overt nominative subject. Sakha does not have a true infinitival verb form that is exactly comparable to English's *to*-infinitive, however.[22] The interesting cases, then, are Sakha's many participial verb forms. These are used in a variety of environments, which have somewhat different properties. They can be used in matrix clauses, where a nominative subject is possible, and the verb has T-like ("predicative") agreement attached to it:

(58) En aaq-a-qyn (NV: 220)

You read-AOR-2sS.PRES

'You read.'

They can be used in embedded clauses in argument positions, in which case a nominative subject is possible, and the verb has D-like ("possessive") agreement attached to it:

(59) En aaq-ar-yŋ bil-l-er. (NV: 222)

You read-AOR-2sP know-PASS-AOR(3sS)

'It is known that you read.'

Most interestingly, clauses with a participial verb can be adjoined to a noun, as a relative clause; see Kornfilt 2005 for discussion of this construction in a comparative Turkic context. In this environment, the participial verb cannot bear agreement of any sort:

(60) a. cej ih-er-(*e) caakky

tea drink-AOR-3s tea

'a cup that one/*he drinks tea from'

b. aaq-ar kinige, *aaq-a-qyn kinige

read-AOR book read-AOR-2sS book

'a book for reading', not 'a book that you read'

Although this is not crucial here, we take these facts to show that the participle head itself does not undergo agreement in Sakha. Agreement is realized morphologically on a participle only if the projection of the participle is the complement of some other, possibly null head that bears agreement—T in (58), or (something like) D in (59).

Crucial for our interests here are the prospects of having a subject in a relative clause like (60). The examples in (60) have no overt subject, but rather some kind of null indefinite NP, probably a PRO_{arb}. One can also construct similar examples with an overt subject under narrow conditions: the subject must be indefinite, the verb must be unaccusative, and the subject must be adjacent to the verb, as in (61).

(61) a. sibekki tyll-ar kem
flower bloom-AOR time
'a time when flowers bloom'

b. oton buh-ar sir
berry ripen-AOR place
'a place where berries ripen'

If these conditions do not hold, an overt subject is not possible:

(62) a. *Masha cej ih-er caakky.
Masha tea drink-AOR cup
'a cup that Masha drinks tea from'

b. *djaxtar oŋor-but caakky
woman make-PTPL cup
'a cup made by a woman'

c. *yt ur-er sir/ kem

dog bark-AOR place/ time

'a place where/a time when dogs bark'

d. *sibekki-ler (emiske) tyll-ar kem

flower-PL suddenly bloom-AOR time

'a time when (the) flowers (suddenly) bloom'

To make these relative clauses grammatical, there must be a "possessive" suffix on the head noun that agrees with the overt subject of the relative clause:

(63) a. Masha cej ih-er caakky-ta.

Masha tea drink-AOR cup-3sP

'a cup that Masha drinks tea from'

b. djaxtar oŋor-but caakky-ta

woman make-PTPL cup-3sP

'a cup made by a woman'

c. Yt ur-er sir-e/ kem-e

dog bark-AOR place-3sP/ time-3sP

'a place where/a time when dogs bark'

d. Sibekki-ler (emiske) tyll-ar kem-nere

flower-PL suddenly bloom-AOR time-3pP

'a time when the flowers (suddenly) bloom'

And if the subject is a possessed nominal, it can be seen that the case assigned to the subject in these examples is actually genitive:[23]

(64) Masha aqa-ty-*n* atyylas-pyt at-a

Masha father-3sP-*GEN* buy-PTPL horse-3sP

'the horse that Masha's father bought'

What are we to make of this somewhat complex pattern from the point of view of Case theory? In particular, why are the examples in (62) ruled out?[24] It cannot be required that there be an agreement-bearing D^o above the NP as a whole, because no such D^o is seen in the examples in (60) and (61). Rather, we suggest that the paradigm is best understood by saying that there is a Case filter in Sakha (consistent with the results of section 4.1) and nominative case is not assigned to the subject in this particular environment. If the subject is PRO, a null category that does not need to be assigned case, the structure is possible ((60)). If the subject is an indefinite internal argument of the verb and linearly adjacent to that verb, then it can enter into a (pseudo)-incorporation relation to the verb, thereby avoiding the Case filter ((61)). If there is a source of case for the subject that is external to the relative clause, in the form of a genitive-assigning D^o, then the structure is possible ((63), (64)). This D^o reaches downward into the relative clause adjoined to its NP complement, and finds the highest NP in that clause to agree with, assigning it genitive case; this is reminiscent of how v assigns accusative case to the subject of an infinitive in Chomsky's (2000, 2001) analysis of Exceptional Case Marking constructions in English. But if none of these conditions hold, then the subject does not get case, and the Case filter is violated, explaining the badness of the examples in (62).

Is this range of facts compatible with Marantz's notion that nominative is an unmarked case, assigned to any NP in IP? To answer this, we need to be more precise about what counts as "IP" in Sakha. We would get the right result if we say that true TPs always count as "IPs", whereas participle phrases sometimes do and sometimes do not. More specifically, participle phrases count as IPs if they combine with an agreeing head

of some kind, but not otherwise. So a more precise Marantz-inspired rule of unmarked case assignment would be "Nominative is assigned to an NP in a clause-like constituent that contains an agreeing functional head." (cf. (George and Kornfilt 1981).

But even this formulation is not quite complete. It does not express the fact that the agreeing functional head must in fact agree with the NP that gets nominative case. That should not go without saying. There are situations in Sakha in which a functional head such as T needs be present and has an agreement feature, but there is nothing for it to agree with. In such situations, the head can show up with default third person singular features, as in other languages. This happens, for example, in a passive where the agent argument is covert and all other arguments are marked with a dependent case, as in (65).

(65) Oqo-lor-go at-tar-y ber-ilin-ne. (*ber-ilin-ni-ler)
child-PL-DAT horse-PL-ACC give-PASS-PAST.3sS give-PASS-PAST-3pS
'The children were given horses.'

So it does not necessarily follow from the fact that there is an agreement-bearing functional head in a certain domain that that head actually agrees an NP in the domain. But matters are different when the theme NP in a structure like (65) is nominative. Then default agreement on T is impossible; T must agree with the nominative NP, as in (66).

(66) Masha-qa at-tar ber-ilin-ni-ler. (*ber-ilin-ne)
Masha-DAT horse-PL give-PASS-PAST-3pS give-PASS-PAST.3sS
'The horses were given to Masha.'

It is a bit awkward to say that agreement here is required by some inherent property of T, given the grammaticality of (65). Rather, it seems that T must agree with the unmarked NP for the NP's sake, so that it will be licensed by Case theory.[25] So now our Marantzian

rule of case assignment has evolved into "Nominative is assigned to an NP in a clause-like constituent that contains an agreeing functional head that agrees with that NP."

But why all these conditions? What is so crucial about there being an agreeing functional head? Chomsky's Case theory has the answer: it is really the functional head itself (here T) that assigns case to the NP as a consequence of entering into an agreement relationship with it. This is expressed directly in (5), repeated here as (67).

(67) If a functional head F ∈ {T, D} has unvalued phi-features and an NP X has an unvalued case feature [and certain locality conditions hold], then agreement holds between F and X, resulting in the phi-features of X being assigned to F and the case associated with F (Nom or Gen) being assigned to X.

Reviewing the overall form of our argument, we started by assuming Marantz's approach to nominative case, which had considerable initial plausibility. However we found that we needed to refine it. First we moved from saying that nominative case is a default case to saying that it is an unmarked case. Then we refined the notion of the domain in which nominative case is assigned, from clause/IP, to constituent containing an agreeing F, to constituent containing an agreeing F where F actually agrees with the nominative NP. This brings us to the Chomskian view of nominative case assignment, in which nominative case is assigned by a T-like head entering into an agreement relationship with a given NP. The result is a hybrid case theory, with accusative and dative being assigned Marantz-style, and nominative being assigned Chomsky-style.

Further support for this cluster of ideas comes from considering clauses that appear in construction with nouns like *surax* 'rumor' and *sonun* 'news' in Sakha. The range of possibilities for such a clause is roughly the union of the possibilities for the

clausal complement of a verb and those for a relative clause. Nouns like 'rumor' can combine with a finite CP, or with a participial clause that bears possessive agreement, or with a participial clause that does not bear agreement:

(68) a. Misha kel-ieq-e dien surax
Misha come-FUT-3sS that rumor
'a rumor that Misha will come'

b. En kel-bit-iŋ suraq-a
you come-PTPL-2sP rumor-3sP
'a rumor that you came'

c. En kel-bit suraq-yŋ
you come-PTPL rumor-2sP
'a rumor that you came'

This range of examples show that there is no absolute requirement that the head of the clause bear agreement (it does not in (68b)), nor that the head noun bear agreement (it does not in (68a)). Indeed, there are examples in which agreement does not show up in either location. This happens when the subject of the clause is a PRO_{arb}, or when it enters into a (pseudo-)incorporation relation with the verb in the clause.

(69) a. djie urusxall(aa)-yyr surax
house destroy-AOR rumor
'a rumor that they (unspecified) will destroy the house'

b. (?)sibekki tyll-ar surax
flower bloom-AOR rumor
'a rumor that flowers are blooming'

But it is not possible to leave out both agreeing heads when the subject of the clause is an overt argument that cannot incorporate into the verb:

(70) *En kel-bit surax
you come-PTPL rumor
'a rumor that you came'

It is hard to say that (70) is bad because an obligatory part of the clause structure or the nominal structure has been omitted. Rather, it is ungrammatical because the overt unincorporable subject needs Case. Neither (4a) not (4b) applies to it. Therefore it must be assigned (nominative) case by a T-like head that agrees with it, as in (68b), or (genitive) case by a D-like head that agrees with it, as in (68c).

Finally, with all this ground work in place, it is easy to extend the Chomskian view to genitive case assignment as well. Given that there is a Case filter, possessors and subjects in nominalized clauses need to get case too. We can observe that they have genitive case, usually unmarked like nominative case, but distinguishable from it when the head noun bears a possessive suffix. Is this genitive case assigned inside any NP? Data like the following show that the answer is no; genitive case is assigned only in an NP that has an agreeing D, realized at PF as possessive agreement on the head noun:

(71) a. aqa 'father'
b. *Aisen aqa (Aisen father) 'Aisen's father'
c. Aisen aqa-ta (Aisen father-3sP) 'Aisen's father'

(72) a. terilte-ni salaj-yy
company-ACC manage-EV.NOML
'the management of the company'

b. *Masha terilte-ni salaj-yy

Masha company-ACC manage-EV.NOML

'Masha's managing the company'

c. Masha terilte-ni salaj-yy-ta

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

'Masha's managing the company'

Nouns, whether simple or derived, do not in themselves need to have a possessive suffix attached to them in Sakha. In particular, there is no such suffix on a simple noun if there is no possessor ((71a)), or on a derived nominal if the subject argument is nonovert ((72a)). (Note that, on our theory, there must be a PRO subject in this example, to trigger dependent accusative case on the object 'company'.) If, however, there is a possessor or overt subject inside the DP, then an agreement-bearing head is required on the noun—and it is required to agree with the possessor/subject. By parity of reasoning with what we have said about nominative case and participial clauses, it is natural to say that an agreeing D is needed to assign genitive case to the NP it agrees with in (71c) and (72c).

4.3 Further support for the Chomskian theory

There is another explanatory benefit that results from saying that nominative case is assigned in the Chomskian way in Sakha. So far we have seen that this is needed to explain where overt unincorporated noun phrases can and cannot appear in Sakha. But it can also explain something significant about agreement in the language: the fact that two distinct functional heads never agree with the same NP in Sakha.

First, let us show that there is something to be explained in this regard. In our discussion of constructions involving a noun like 'rumor', we saw that there can be

agreement with the subject on either the participle or on the head noun 'rumor' itself. Each agreement is optional, but if both are missing, then the subject violates the Case filter. Now if both agreements are optional, we might imagine that there could be a structure in which both agreements are present simultaneously. But this is ruled out:

(73) *<u>en</u> djoro kiehe-qe kel-er-iŋ suraq-<u>yŋ</u>

you party-DAT come-AOR-2sP rumor-2sP

'the rumor that you are coming to the party'

Something similar can be seen by considering raising constructions of the sort discussed in section 3.5. There we showed that the subject of a finite CP can adjoin to CP, becoming visible for dependent case assignment within the matrix CP phase. The T of the embedded clause necessarily agrees with this DP, by the EPP and related concepts. The matrix clause must also have a T, and it also has agreement features. Real agreement, when possible, takes precedence over default agreement. Since the DP can move to a position where it is visible on the matrix CP phase (and since downward agreement is possible, as shown by dative subject constructions), all things being equal we might expect the matrix T to agree with the raised subject as well. But this is impossible; rather the matrix T must bear the default agreement of last resort.

(74) Bügün [oqo-lor [beqehee kyaj-byt-tara dien]] cuolkaj buolla-(*lar).

today child-PL yesterday win-PAST-3pS that clear become-3pS

'Today it became clear that the children won yesterday.'

So something must be said about why double agreement is impossible in (70) and (71).

Chomsky's notion of the relationship between case and agreement provides the missing piece. It is built into Chomsky's principles that a functional head cannot agree

with an NP if that NP has already been assigned case.[26] For example, Chomsky (2001:6) writes "Once the case value is determined, N no longer enters into agreement relations…." Some straightforward empirical motivation for this in Sakha is that T clearly cannot agree with an NP that is assigned accusative or dative case by (4). For example, T cannot agree with the dative subject of a predicate like 'need', nor can it agree with an accusative theme argument in a passive sentence. In these situations, T must be default third person singular (see also (65) above):

(75) a. Oqo-lor-go üüt naada-(*lar)
child-PL-DAT milk need-(*3pS)
'The children need milk.'

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.' (Plural verb is OK if theme is not accusative)

So we need to say that agreement fails if an NP already has case anyway. Why then does agreement fail in (73) and (74)? Because, given Chomsky's (5)/(67), it is a necessary side effect of agreement happening in the lower clause that the lower T assigns case (nominative) to the NP it agrees with. Once that NP has been assigned case, no other head can agree with it, according to (67). Hence, (73) and (74) are ruled out by the same principle as (75)—but only on the assumption that the assignment of nondependent cases is closely related to agreeing with a functional head.

In contrast, suppose that NPs did not need to be case marked in the syntax, and that agreement was independent of case marking. Then we cannot infer from the presence of agreement in the lower domain that the NP is already case marked. There is then no

already motivated feature of the NP to mark it as ineligible for agreement in the larger CP domain. Perhaps a diacritic feature could be invented to do this, but it would be ad hoc, whereas this interaction follows from independently motivated assumptions within the Chomskian approach.

Here is one additional case in point, to show that these considerations are general. We have seen that Sakha has two kinds of Infl-like heads, true Tense and Participle. True Tense is an inherently agreeing head, but Participle is not; it combines with some other, abstract agreement bearing head (T, D) in some circumstances but not others. Now consider complex tenses consisting of a main verb and an auxiliary verb in Sakha. The main verb in such a combination is always a participle of some kind. The auxiliary verb, however, is unrestricted; it can bear a true Tense, or it can be a participle. The interesting fact is that when both verbs are participles, either one can agree with the subject, one of them must, but both of them cannot:

(76) a. En süüj-büt e-bik-kin
you win-PTPL AUX-PTPL-2sS

b. En süüj-bük-kün e-bit
you win-PTPL-2sS AUX-PTPL

c. *En süüj-büt e-bit
you win-PTPL AUX-PTPL

d. *En süüj-bük-kün e-bik-kin
you win-PTPL-2sS AUX-PTPL-2sS
All: 'The result is that you won.'

There is the possibility of an extra head (a phonetically null T?) just above the lower participle, and the possibility of one above the higher participle. Both are optional from the point of view of clause structure. If both are omitted, the subject fails to get case. But if both are included, the sentence fails as well: the lower head agrees with the subject, assigning it nominative, but then the higher head cannot agree with it because it is already case marked. This is parallel to constructions with nouns like 'rumor', discussed above.

These arguments also apply to the relationship between a genitive case noun and a D head. D cannot agree with an NP marked dative or accusative; for example, if the clauses in (75) are nominalized by –II, there cannot be possessive inflection on the derived nominal agreeing with the dative subject or the accusative theme. Double agreement is also ruled out in DPs; for example, if the sentence in (74) is nominalized, a D on the nominalization cannot agree with the raised subject of the embedded verb:

(77) beqehee oqo-lor [-- kyaj-yax-tara dien] cuolkajdan-yy-ta (*-lara)
yesterday child-PL win-FUT-3pS that become.clear-NOM-3sP (*-3pP)
'its becoming certain yesterday that the children will win'

There is thus plenty of reason to treat the relationship between a genitive case NP and the agreeing D in the same Chomskian way as the relationship between a nominative case NP and the agreeing T, as expressed in (5)/(67).

5. The big picture and concluding remarks

We have shown that there are two kinds of structural case in Sakha, each with its own distinctive behavior. Nominative and genitive are assigned by functional heads (T and D) that enter into agreement with the NP being case marked. In contrast, accusative and dative are not assigned by functional heads; rather they are dependent cases in the sense

of Marantz 1991, receiving case when there is another NP in the same local domain. As a consequence, NPs with these cases are not generally agreed with in Sakha. The result 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.

It is fair to ask whether this combination of principles is a coherent one or not. We submit that it is. A "big picture" of how case theory works (in Sakha) that can be constructed out these pieces is as follows. First, all overt NPs associated with an argument role enter the derivation with an unvalued case feature, as in Chomsky 2001.[27] The case feature of an NP can then be valued in any of three ways: (i) it can get a lexically specified case from the lexical head that selects it (not discussed in detail here); (ii) it can get dependent case, in Marantz's sense, by one of the rules in (4) (repeated as (78)), if it is in the right configuration; (iii) it can get "unmarked" case from a nearby functional head via a Chomsky-style agreement relationship ((5), repeated again as (79)).

(78) a. If there are two distinct NPs in the same VP-phase such that NP1 c-commands NP2, then value the case feature of NP1 as dative unless NP2 has already been marked for case.

b. If there are two distinct NPs in the same phase such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case.

(79) If a functional head F $\in$ {T, D} has unvalued phi-features and an NP X has an unvalued case feature [and certain locality conditions hold], then agreement happens between F and X, resulting in the phi-features of X being assigned to F and the case associated with F (nominative or genitive) being assigned to X.

(78) and (79) are not two independent systems of case assignment; rather, they constitute a single system, in that they are both ways of valuing the same case feature. Both apply in the narrow syntax, inasmuch as both can happen prior to movement and movement can feed the application of both types of case assignment. Also, case assignment of both types bleeds subsequent agreement with that noun phrase, and along with it the assignment of nominative or genitive case to an NP that is already case marked. In contrast, (78) can apply to add a new case feature to an NP that already has case; this happens in subject raising and possessor raising constructions in Sakha (sections 3.5 and 3.6). Syntactic derivations proceed cyclically, from bottom up, in the usual Chomskian way. One consequence of this is that accusative case applies to the object before the object gets a chance to move higher than the subject or close enough to T to get nominative case, and similarly for dative NPs. There is no unrestricted default case in Sakha, and if a phase of the derivation that undergoes spell-out contains an NP whose case feature has not been valued, the structure is ruled out. Finally, morphemes are inserted at PF to realize the case features in the usual way outlined by Distributed Morphology, which we have only touched on in passing. Only at this level does the fact that nominative has no morphological exponent and genitive has one only in a limited environment come into play. We have also assumed that if two case features are assigned to an NP in the syntax, only the innermost one that has a morphological exponent is

spelled out at this level. As a result, a representation like [[N-DAT]-ACC] is spelled out simply as NP-DAT, but a representation like [[N-NOM]-ACC] is spelled out as NP-ACC, because NOM has no morphological realization at PF. Hence, raising a goal NP out of VP into the CP phase does not change its visible case marking, but moving a nominative NP out of an embedded CP into the matrix CP phase does. This view of Case theory is built out of familiar elements, and it can handle the rather intricate facts about case assignment in Sakha that we are aware of.

Is this a disciplined and coherent view of Case theory? We believe the answer is yes. Indeed, it is essentially Chomsky's conception of Case theory, with the single addition of Marantz's notion of dependent case assignment. On all other points—whether there is a Case filter, whether case assignment happens in syntax, the nature of nominative and genitive case assignment—we have found reason to side with Chomsky rather than Marantz. The overall picture thus has essentially the same coherence that the normal Chomskian picture has. At the same time, we find it attractive that the theory we have presented is somewhat less abstract, somewhat closer to the observable facts of Sakha in one notable respect: there is very little abstract agreement in our analysis. When case is assigned by agreement with a nearby functional category in Sakha, agreement is manifest on that functional category at PF. The cases that do not agree overtly with any functional head—accusative NPs and dative NPs—are not assigned by agreement at all, but are assigned by the rules of dependent case marking. We find this a pleasing result.

Of course, it is a limitation of this paper as well as a virtue that it has studied case along one dimension only, taking a relatively comprehensive look at how case works in a single language, but undertaking little explicit comparison to other languages. Will the

attractive convergence of surface morphological patterning and the actual modalities of case assignment hold up for other languages as well? We hope that future research by ourselves and others will answer this. In any case, one clear consequence of this study is that a full-fledged typology of case marking systems figures to be more complex than is usually thought. There are simply more factors to keep track of, given that both configurational case marking and agreement-driven case marking exist and can operate within the same language.

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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).

[1] An important precedent to Marantz's approach is the Case-in-Tiers approach of Yip, Maling, and Jackendoff 1987, which is like Marantz's in certain significant ways. We use Marantz's approach as our starting point instead because (a) it has a more ready account of constructions in which accusative case is assigned but nominative case apparently is not (e.g., the passives in section 3.3 and the nominalizations in 3.4), and (b) it predicts the existence of tripartite systems of case of the kind found in Nez Perce (Woolford 1997). Space does not permit us to go into a detailed comparison here.

[2] However the theory of accusative case in which Vinokurova couches her work is the largely unpublished one developed within the "Theta System" by Reinhart, Reuland, and Siloni (see, for example, Reinhert and Siloni 2005). Since that approach to Case theory is less familiar and not easily compared with the others we are investigating here, we use Vinokurova's empirical discoveries and generalizations more than her specific proposals.

[3] 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 relevant phase for purposes of (4a). The structure would then be identical to the one shown (22b), except with an applicative head instead of a 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.

[4] There are controversies in the literature about whether vP or VP is the smaller phase in the clause; Fox and Pesetsky 2004 for example assume this varies across languages. It is crucial to our account that the smaller domain be VP in Sakha, as the reader can easily verify. We also crucially assume that VP is a phase even in passive and unaccusative clauses, to account for dative case assignment to goals in such clauses; see Legate 2003.

We think it would be possible to implement the substance of our account within a more orthodox view of phases by taking advantage of the fact that, in Chomsky's (2000, 2001) view, when a vP phase is completed only its VP complement is shipped off to the interfaces. The rules in (4) could then be seen as applying to these "Spell Out Domains" at the point in the derivation when they are actually spelled out. This would, however, force us to make more use of the A/A-bar distinction in the way alluded to in note 5 to make sure that scrambling within a single phase does not mess up the case assigning configurations before Spell Out happens. This would make the presentation more complex, and as far as we can see the gains would only be in terms of theoretical orthodoxy, not in empirical coverage. We thus do not develop this alternative here.

It is also possible, of course, that the locality domains that are relevant to case assignment are simply not the same as the locality domains (phases) that are relevant for other syntactic purposes, such as movement. But that would be a position of last resort, and the two notions are close enough that we optimistically use the term "phase" here.

[5] There could 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 (4). We do not investigate the pros and cons of the various technical possibilities here (see also note 4).

[6] We also conclude from this that no (monadic) verb assigns dative or accusative as a lexically governed case in Sakha, whereas this is common in Icelandic.

[7] 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 (4a) must be generalized to apply within AP constituents as well as within VPs.

[8] Vinokurova 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 within our analysis by tinkering with our assumptions about what counts as the smaller phase in a causative construction. In (22b) we assume that the *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 (4a) 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, (4b) assigns them both accusative case, because they are c-commanded by the causer.

[9]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').

[10] In contrast, the theme argument of a passive verb cannot be marked accusative in Turkish (Kornfilt 1997, Cem Keskin personal communication).

[11] 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.

[12] The form *–aaccy* is also used as a verbal participle with a habitual meaning in Sakha. While this morpheme is presumably the historical source of the agentive nominalizer *–aaccy*, there is evidence that phrases like those in (29) are not derived directly from the verbal construction by (for example) nominalization or the formation of a headless relative clause. For example, verbal participle *–aaccy* can attach to passive and unaccusative verbs, but nominalizing *–aaccy* cannot. Also, verbal participle *–aaccy* can combine with adverbs and negation, whereas nominal *–aaccy* cannot (see (30) and (31))

[13] Again, accusative case is not found in the Turkish equivalents of these nominals, suggesting that only lexical NPs (not PROs) count as case competitors in Turkish.

[14] (33b) is a simplification in that there is evidence that voice and aspect nodes can be present in an event nominalization in Sakha, unlike in an agentive nominalization. That only enhances the point at hand, however, because if anything these additional functional categories should make it more likely that the theme argument can be assigned accusative case given the Chomskian view (whereas they are irrelevant in our view). We thank an anonymous review for reminding us of the significance of this contrast.

[15] Korean is another reasonably well-studied language that is known to allow the apparent subject of a finite CP complement to be marked accusative under some conditions. It would be worth comparing Korean to Sakha (and Turkish) in this regard in future work.

[16] Vinokurova (2005:364) gives a similar example as bad. She did not distinguish carefully between proleptic object constructions and raised subject constructions. When

the accusative NP is unambiguously in the matrix clause (e.g., when it is separated from the embedded clause by an adverb) then it is a proleptic object, and an NPI in this position cannot be licensed by negation on the lower verb. But when the accusative NP is merged with CP, it can be both accusative and in the scope of lower negation.

[17] To be precise, putting NP at the edge of CP might make it visible in the matrix VP phase, but not the matrix CP phase, where the matrix subject is. We assume, though, that complement CPs always shift out of the VP (cf. Stowell 1981). For participial clauses, this is evident in that they themselves must be marked for accusative case, indicating that they have moved out of VP into the same domain as the subject.

[18] Presumably movement entirely out of the adjunct clause is blocked by the adjunct island condition or whatever more general principle it reduces to.

[19] In light of the unusual examples in (39)-(41), an anonymous reviewer raises the possibility that accusative case is assigned by the complementizer *dien* in Sakha, and not in the matrix clause at all. This is made more plausible by the fact that *dien* is historically the converb form of the verb 'say'. Given this historical source, it could still have some verbal characteristics, including potentially the ability to assign accusative case.

We have three reasons to reject this alternative. First, accusative case on the subject is impossible when the clause is the complement of an impersonal predicate, as shown in (42a) below, even though *dien* is present. Second, accusative case on the subject is impossible when a *dien* clause functions as the complement of a noun, as in (i).

(i) taŋara-(*ny) baar dien surax (cf. Vinokurova 2005:365)
god-ACC exist that rumor
'the rumor that God exists'

Third, accusative case is possible when an NP is raised out of a participial clause, as in (37b). Thus accusative case marking on the subject is sometimes possible without *dien*, and it is sometimes impossible with *dien*, so *dien* is not the assigner of accusative case.

[20]An alternative might be to say that the objects of these Ps are optionally allowed to move to the edge of the PP phase, whereas the objects of other Ps cannot do this.

[21] 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 (11a), just as the unincorporated one in (11b) does. See also the causative in (21b).

[22] Perhaps the closest equivalent in Sakha to an infinitive is nominalizations formed by suffixing –II, but these are more like gerundive NPs formed by *–ing* in English. Phrases headed by verb+II can be the complement of a possessive D, which assigns the subject genitive case. See (72) below for some examples.

[23] On this point, we disagree with Kornfilt (2005:531), who says that the subject of the relative clause must be in nominative case. It is true that the genitive suffix *–n* is not obligatory in this example, but it is possible. This exponent is in general only fully obligatory when the possessed noun immediately precedes that noun that bears the agreeing D-head that assigns genitive case. We take this to be a superficial morphological fact, related to the near total loss of genitive case inflection in Sakha. Since the subject is (can be) genitive in (65) but nominative in a participial clause complement like (59), we assume that the agreeing head is simply the D that would normally take a complement NP (here the one headed by 'horse') and assign genitive case, rather than an agreeing T-like head that has separated from the participle phrase and cliticized to the noun, as in

Kornfilt's analysis. (This also avoids the paradox about morpheme order on the head noun that arises within her analysis, which she discusses on pp. 534-537.)

[24] Kornfilt (2005) reports that examples like (62) were possible in Old Turkish, and exist in some modern Turkic languages (Uzbek, Uigur, Azeri). This might imply that nominative case could/can be assigned as a default case in these languages.

[25] Other configurations like (66) are the possessive dative subject construction in (17) and the possessor raising construction in (46). In all three structures, T must agree with an NP generated inside VP, past a dative NP, in order to assign that NP nominative case.

[26] Baker 2008:ch. 5 argues that this condition on agreement is not universal, but rather parameterized; it holds in one broad class of languages (including most Indo-Europoean languages) but not in another. Thus, in some languages, it is possible for a finite verb to show "subject" agreement with an obliquely case-marked NP, in contrast to the Sakha data shown in (75). Interestingly, some of those languages also allow more than one functional head to agree with a given nominal in auxiliary constructions and raising constructions, so that the equivalent of (76d) is also grammatical. This provides a degree of crosslinguistic support for the idea that the data in (73)-(76) are interrelated, all ultimately depending on whether agreement is tied to case assignment in a given language or not. See Baker 2008:ch. 5 for examples and discussion.

[27] In contrast, nonargumental NPs probably are generated without a case feature. This includes NPs that are interpreted predicatively—predicate nominals, NPs that undergo pseudo-incorporation—and NPs isolated from clause structure, such as vocative NPs. (Sakha seems not to have hanging topic/dislocation constructions with a case-less NP, the way some IE languages do.) PRO also seems not to have a case feature in Sakha.