Case in Sakha: Are Two Modalities Really Necessary?[*]

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Abstract

Baker & Vinokurova (2010) argue that the distribution of morphologically observable case in Sakha (Turkic) requires a hybrid account, which involves recourse both to configurational rules of case assignment (Bittner & Hale 1996, Marantz 1991, Yip, Maling & Jackendoff 1987), and to case assignment by functional heads (Chomsky 2000, 2001). In this paper, we argue that this conclusion is under-motivated, and present an alternative account of case in Sakha that is entirely configurational. The central innovation lies in abandoning Chomsky's (2000, 2001) assumptions regarding the interaction of case and agreement, and replacing them with Bobaljik's (2008) and Preminger's (2011) independently motivated alternative, nullifying the need to appeal to case assignment by functional heads in accounting for the Sakha facts.

1. Introduction

Baker & Vinokurova (2010) (henceforth, B&V) argue that the distribution of morphologically observable case in Sakha (Turkic) requires a hybrid approach to the assignment of case. Specifically, they argue that the distribution of accusative and dative case in Sakha can only be accounted for configurationally (Bittner & Hale 1996, Marantz 1991, Yip, Maling & Jackendoff 1987), and cannot be accounted for in terms of case assignment by functional heads (as in Chomsky 2000, 2001). Conversely, they argue that nominative and genitive case require an account in terms of case assignment by functional heads, and cannot be accounted for configurationally.

In this paper, we present an argument that this conclusion is in fact under-determined by the Sakha data that B&V put forth, and that the distribution of all four cases within their data can be accounted for within a purely configurational approach.

Note that we do not equate adopting a configurational approach to the computation of morphological case with the claim that this computation—and relatedly, the computation of φ-feature agreement—takes place post-syntactically, on the "PF-branch" (as argued by Bobaljik 2008, Marantz 1991). Instead, we assume, with B&V themselves (p. 597), that these computations occur within syntax proper (see also Preminger 2011:141–155).

We begin in section 2 with a brief survey of the two models of case assignment relevant to this discussion. Next, in section 3, we review B&V's arguments for the necessity of case assignment by functional heads alongside configurational case assignment in Sakha, and propose a fully configurational (and thus, more uniform) account of the same facts. Finally, in section 4, we explore the question of whether there remains any need to appeal to the Case Filter (Chomsky 1981) within an account of case in Sakha.

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2. Theoretical background: Two models for the calculus of case

As alluded to above, we are concerned in this paper with two particular models for the calculus of morphologically-observable case: the assignment of case using configurational rules, and the assignment of case by designated functional heads. We use the term *morphologically-observable* to distinguish it from *abstract case*, on which we take no stance (not even that it exists; see Marantz 1991). In what follows, use of the term *case* without accompanying modifiers should be understood to refer to the morphologically-observable variety. Moreover, it should not be taken as having to do necessarily with the notion of *licensing* (see also section 4).

The configurational model assigns case to a noun phrase based on the interplay of two factors: the identity of the head that (c-)selects it, and the position of the noun phrase relative to others in the clause (Bittner & Hale 1996, Marantz 1991, Yip, Maling & Jackendoff 1987). Procedurally, we follow Marantz's (1991) *disjunctive case hierarchy*:

(1)　DISJUNCTIVE CASE HIERARCHY
　　　lexical/oblique case ≫ dependent case ≫ unmarked case

Let us briefly sketch how (1) works. First, all noun phrases that are selected by lexical items which idiosyncratically specify a particular case-marking for their arguments (prepositions, verbs that govern so-called "quirky case", etc.) are assigned the idiosyncratic case in question.

Next, all those noun phrases that did not receive case in the previous step are evaluated. Every pair of as-of-yet-caseless noun phrases within a local domain that stand in an asymmetric c-command relation enter into what is sometimes called a "case competition" relation, resulting in the assignment of *dependent case*. Normally, case competition is itself an asymmetric relation, parametrized in one of two ways: in an ergative language/construction, the higher of the two noun phrases will receive dependent case, and we will call this case 'ergative'; in a non-ergative language/construction, the lower of the two will receive dependent case, and we will call this case 'accusative'. This is schematized in (2a–b):

(2)　CASE-COMPETITION → DEPENDENT CASE
　　　a.　　　NP … NP$^{\text{"ACC"}}$　　　dependent case: *downward* ⇒ nominative-accusative alignment

　　　b.　$^{\text{"ERG"}}$NP … NP　　　dependent case: *upward* ⇒ ergative-absolutive alignment

If, however, we also allow case competition to be a reciprocal relation, the prediction is that both ergative and accusative can be assigned simultaneously to the two noun phrases entering into such a relation. Deal (2015) proposes that *tri-partite* case systems like the one in Nez Perce, where accusative and ergative can co-occur, arise in this fashion. This suggests a third possible parameter setting for the dependent case relation: *reciprocal*, alongside *upward* and *downward*. Finally, Baker (2012b) argues that languages with neither overt accusative nor overt ergative might arise when neither (2a) nor (2b) is available, suggesting a four-way typology where (2a–b) can each be parameterized as *on* or *off*, independently of one another.[1]

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[1]We thank the reviewers for raising these points.

In the final step, every noun phrase that has not been assigned lexical/oblique or dependent case in the preceding steps will be assigned *unmarked case*. We can informally call such case marking 'nominative' or 'absolutive', or in the nominal domain, 'genitive'. We take the actual form given to a noun phrase bearing unmarked case to be sensitive to the spellout domain (e.g. whether it is CP or DP/PP); therefore, there is no requirement that nominative/absolutive have the same form as genitive in a given language for this account to apply.

The term "unmarked case" is not to be confused with "default case" or "citation form": in English, for example, fragment answers and other free-standing forms bear accusative(/objective), the dependent case (e.g. *Who came to the party?* ***Him/*He***). Instead, the term unmarked case refers to case-marking whose appearance is neither idiosyncratically conditioned, nor dependent on the appearance of other noun phrases in the clause. What its name *is* meant to suggest is a cross-linguistic tendency to be phonologically empty, or phonologically lighter than dependent case and lexical/oblique cases.[2]

In the functional head model, case is assigned to an as-of-yet caseless noun phrase by virtue of structural proximity to a designated functional head. This bears superficial similarity to the lexical/oblique case of (1), but some significant differences exist: lexical/oblique case is assigned under c-selection, and therefore only under sisterhood.[3] This second model describes a potentially distinct scenario: given a designated case-assigning functional head F^0, and a noun phrase α that is both c-commanded by F^0 and within the same locality domain as F^0, the particular case-marking associated with F^0 (e.g. nominative for $Infl^0$, accusative for v^0, and so forth) will be assigned to α. This is so even if F^0 does not *immediately* c-command α, as schematized in (3):

(3)
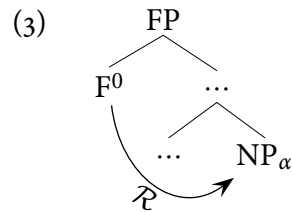
For B&V, who follow Chomsky (2000, 2001) in this regard, the case-assignment relation $\mathcal{R}$ in (3) is parasitic on a simultaneously established relation of φ-feature agreement between F^0 and α. (This is crucial for B&V's arguments pertaining to nominative and genitive in Sakha; see below.)

3. A fully configurational account of case in Sakha

As noted above, B&V adopt a hybrid model of case assignment to account for the distribution of different case-markings in Sakha, consisting of a configurational mechanism for some case markings (accusative, as well as some instances of dative), and a mechanism of case assignment by functional

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[2]This is a tendency, not a universal: the Baltic languages, as well as Aymara, are examples of nominative-accusative languages where nominative cannot be construed as morpho-phonologically unmarked or less-marked than other case-markings; similarly, Nias (Donohue & Brown 1999), as well as the Northwest Caucasian languages (Maria Polinsky, p.c.), are examples of ergative-absolutive languages where absolutive cannot be construed as morpho-phonologically unmarked or less-marked than ergative.

[3]Ditransitives (and perhaps applicatives more generally) might present a case of c-selected specifiers. If so, the sisterhood restriction noted in the text may be replaced with immediate m-command.

heads for others (nominative and genitive). Furthermore, they assume that case is assigned within narrow syntax, where the Case Filter (Chomsky 1981) is operative.

The configurational rules proposed by B&V to account for accusative and dative are given in (4):

(4)   ACCUSATIVE AND DATIVE CASE ASSIGNMENT (Baker & Vinokurova 2010)
   a. If there are two distinct NPs in the same VP-level phase such that NP_1 c-commands NP_2, then value the case feature of NP_1 as <u>dative</u> unless NP_2 has already been case-marked.
   b. If there are two distinct NPs in the same phase such that NP_1 c-commands NP_2, then value the case feature of NP_2 as <u>accusative</u> unless NP_1 has already been case-marked.

The relevant structural configurations for (4a–b) are given in (5a–b):

(5)   a. $[_{\text{VP-phase}}\quad NP_1 \ldots NP_2\,]$
               DAT

   b. $[_{\text{any phase}}\quad NP_1 \ldots NP_2\,]$
               ACC

Note that in Sakha, (4b) must be prevented from applying within the VP phase, for two reasons. First, the system would otherwise predict that the direct object could receive accusative in its base position, which as B&V show, is false. Second, depending on whether the two rules are taken to apply simultaneously, the assignment of accusative to the direct object might bleed the assignment of dative to the indirect object. One possibility is that (4a) is preferred over (4b) by virtue of being more specific (given that it refers to *VP-level* phases, as opposed to phases in general), an instance of the Elsewhere Condition. However, in light of the earlier discussion, concerning the possibility of both (2a) and (2b) being operative within a single language, the mere application of (4a) within a VP phase might not, in and of itself, bleed the application of (4b) within that phase. If that is the case, (4b) can be explicitly altered to specify *CP phases* in its structural description.[4]

As for nominative and genitive, B&V claim that these cannot be captured in a configurational approach. The central observation brought to bear on this issue is that those noun phrases that are conjectured to bear nominative or genitive only appear when they are agreed with by a verb or a determiner, respectively. This correlation between agreement and case morphology is taken to motivate the following rule accounting for nominative and genitive:

(6)   NOMINATIVE AND GENITIVE CASE ASSIGNMENT
   If a functional head $F^0 \in \{T^0, D^0\}$ has unvalued φ-features and an NP α has an unvalued case feature (and certain locality conditions hold), then agreement occurs between F^0 and α, resulting in the φ-features of α being assigned to F^0 and the case associate with F^0 (<u>nominative</u> for T^0, <u>genitive</u> for D^0) being assigned to α.

As noted earlier, while we challenge the need for (6), we adopt B&V's (4a–b). We therefore refer the reader to B&V for their arguments in favor of (4a–b). In the remainder of this section, we argue that the evidence brought forth by B&V does not actually necessitate recourse to (6).

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[4]We thank the reviewers for helpful discussion of these issues.

We begin by highlighting an assumption that B&V's account inherits from Chomsky's (2000, 2001) approach to the interaction of agreement and case assignment. On Chomsky's approach, agreement cannot have failed in an utterance that is grammatical. This is because *Agree*, the operation that underlies agreement, is responsible for checking uninterpretable features on the syntactic head that functions as a probe; and such features, when left unchecked, give rise to a crash (i.e., ungrammaticality).

Taking genitive case assignment as an example, it follows from this position that D^0 (at least, D^0 of the agreement-triggering variety) cannot be present in a given derivation unless there is a nominal in its locality domain that can be agreed with, and—as a reflex of this agreement—assigned genitive case. Coupled with the Case Filter, this successfully derives the co-variation between the presence of a genitive noun phrase and the presence of possessor-agreement, as demonstrated in (7a–b):

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

     b. **Masha**   terilte-ni   salaj-yy-*(**ta**)
         Masha(GEN) company-ACC manage-EV.NOML-*(**3SG.POSS**)
         'Masha's managing the company'   [*B&V:634*]

The pattern is derived as follows: given that the noun phrase *Masha* in (7b) meets neither of the conditions in (4a–b), it must receive case from a functional head to avoid a Case Filter violation; such case assignment is the reflex of agreement, and so agreement must surface in this case.

Of course, co-variation (or co-occurrence) does not determine causation; and certainly, it does not determine the direction of causation, should causation exist. B&V (following Chomsky) take it for granted that agreement with T^0/D^0 conditions the presence of nominative/genitive case on nominals. There is an alternative position, however, that B&V do not consider: that the presence of nominative-/genitive-marked nominals conditions the application of agreement, rather than the other way around.

The idea that it is the presence of an appropriately case-marked noun phrase that enables agreement to go through, rather than the other way around, goes back at least to Bittner & Hale (1996:3). More recently, this view has been developed in greater detail by Bobaljik (2008), and further defended by Preminger (2011). Both authors take case to be assigned configurationally (post-syntactically on Bobaljik's view, within syntax on Preminger's), and propose that agreement inspects the landscape of already case-marked nominals, in search of an appropriate target.[5] The

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[5] As stated in §1, we adopt a syntax-internal implementation of configurational case assignment (following B&V, as well as Preminger 2011:141–155). This position, however, is not uncontroversial. Marantz's (1991) original proposal, which B&V build on, posits that case assignment occurs post-syntactically—a position that has since been adopted by McFadden (2004) and Bobaljik (2008), as well. Situating the configurational rules within the narrow syntax, as B&V do, means they can apply as soon as the relevant structural condition is met. This property is exploited by B&V in their account of how case interacts with long-distance scrambling (see also the discussion of case and agreement in raising constructions, in section 3.5, below).

In contrast, on the post-syntactic view, all syntactic operations (within a given domain) must culminate prior to case being assigned, which seems at odds with rules applying as soon as their structural conditions are met. It is possible that the post-syntactic rules of configurational case assignment could be altered so that they achieve the same results; but this does not seem entirely trivial, at this point. We therefore maintain the syntax-internal implementation as indicated in the text. Thanks to a reviewer for helpful discussion of this matter.

appropriateness of a target is evaluated along the *Revised Moravcsik Hierarchy* (Bobaljik 2008, building upon Moravcsik 1974, 1978), given in (8):

(8)　　*Revised Moravcsik Hierarchy*
　　　　unmarked case ≫ dependent case ≫ lexical/oblique case

The hierarchy in (8) forms the basis for a particular kind of parametrization. Per language—or perhaps, per φ-probe in a given language—some left-aligned contiguous span of (8) (i.e., some contiguous span that includes unmarked case) is chosen, which determines a set of possible case-markings; any noun phrase bearing one of these case-markings will then be an eligible agreement target.[6] Thus, in a nominative-accusative language, the parametrization in (9) would yield agreement with nominatives only:

(9)　　$\underbrace{\text{unmarked case}}_{\substack{\textit{accessible for} \\ \textit{φ-agreement}}}$ ≫ dependent case ≫ lexical/oblique case

Suppose that both T^0 and D^0 in Sakha are parametrized as in (9).[7] This means that these probes will scan their c-command domain for a noun phrase bearing unmarked case. Here, we assume (with Marantz 1991) that just as nominative represents the unmarked case in the clausal domain, genitive represents the unmarked case in the nominal domain. Crucially, as argued by Preminger (2009, 2011), when a φ-probe fails to find the kind of target it is looking for, the result is not a crash— but rather, the characteristic spellout associated with completely unvalued features on the probing head.

This independently supported alternative, we argue, facilitates a fully configurational account of case in Sakha, without recourse to case assignment by functional heads. To see this, let us examine some of the key evidence put forth by B&V regarding nominative and genitive.

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[6] A reviewer raises several potential counter-examples to Bobaljik's (2008) generalization, cited in the text. First, the reviewer notes that Coast Tsimshian (Dunn 1979) and Semelai (Kruspe 2004) are two languages that exhibit agreement with ergative noun phrases, but not nominative/absolutive ones. Second, the reviewer notes that in languages like Burushaski and Amharic, object agreement can target a dative noun phrase, but subject agreement cannot.

It is important to note, however, that (8–9) are meant to account for agreement in the narrow sense, excluding other agreement-like phenomena—most notably, clitic doubling (see Anagnostopoulou 2006, and references therein). Interesting, in this regard, is Kramer's (2014) analysis showing that what is conventionally referred to as 'object agreement' in Amharic is in fact an instance of clitic doubling (*pace* Baker 2012a), which would remove Amharic from this list of putative counter-examples. Whether the other cases raised by the reviewer can be afforded a similar analysis is beyond the scope of the current paper.

[7] Other possibilities created by such parametrization are attested, as well. As Bobaljik (2008) shows, finite agreement in Nepali can target noun phrases bearing either unmarked case or dependent case, thus behaving according to the parametrization in (i):

(i)　　$\underbrace{\text{unmarked case} \gg \text{dependent case}}_{\substack{\textit{accessible for} \\ \textit{φ-agreement}}}$ ≫ lexical/oblique case

Similarly, the case/agreement misalignments of Warlpiri and Chukchi (i.e., ergative-absolutive case alignment, coupled with nominative-accusative agreement alignment) come about, following Bobaljik, via the same parameter setting shown in (i).

3.1. Relative clauses

Sakha makes use of participial verb forms in a number of constructions. They can appear in matrix clauses where the verb bears T^0-like agreement (specifying person, number, and tense), as in (10a). They appear in some embedded clauses, where the verb bears D^0-like agreement (i.e., lacking in tense specification), as in (10b). Finally, they are used in relative clauses, where the participial verb lacks agreement morphology, as in (10c).

(10) a. **En** aaq-a-qyn
          You read-AOR-2sgS.PRES
          'You read.'

      b. **En** aaq-ar-yŋ   bil-l-er
          You read-AOR-2sgP know-PASV-AOR(3sgS)
          'It is known that you read.'

      c. **cej** ih-er-(*e)   caakky
          tea drink-AOR-(*3sgP) cup
          'a cup that one/*he drinks tea from'   [B&V:630–631]

In Sakha, genitive case is overtly marked (and thus, distinguishable from nominative) only on DPs that are themselves possessed (see B&V:598); but as Baker (2011) shows, the subjects in (10a–b) bear nominative case, not genitive.[8] Recall that nominative and genitive, on the current proposal, are just different morphological realizations for unmarked case, depending on the identity of the spellout domain (TP and DP, respectively); and that neither arises through φ-agreement. Since *en* "you" is an external argument in both structures, it is located in a position that is at least as high as the edge of the VP phase, and is therefore accessible to probing from a φ-probe in the next higher phase. Given the parametrization shown in (9), an accessible nominal bearing unmarked case can—and therefore, must—be targeted for φ-agreement by this probe, correctly deriving the presence of φ-agreement in these examples.

Holding constant B&V's own assumption that examples like (10c), where an indefinite nominal is left-adjacent to an unaccusative participle, involve obligatory (pseudo-)incorporation (B&V:632) of the nominal, it follows that there is no noun phrase in such examples that bears unmarked case and is accessible for probing. That is because the tail position of the chain created by (pseudo-)incorporation is located within the VP-level phase, and thus not accessible to the φ-agreement probe situated on D^0; and the head of this chain is an X^0, not an XP (see section 4 for a more detailed discussion). There is therefore no accessible nominal that could be targeted for φ-agreement, ruling out successful φ-agreement by D^0 in (10c).

One might entertain the possibility that the implicit subject of an example like (10c)—which we assume, following Baker (2011), is PRO$_{arb}$—could itself serve as a viable agreement target for the φ-probe in this kind of example. Following a suggestion by a reviewer, we tentatively assume that PRO$_{arb}$, unlike controlled PRO, does not inherit φ-features from a controller (Landau 2004);

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[8]Thanks to a reviewer for correcting earlier mistakes in the characterization of these data. Interestingly, the agreement morphology that shows up on participial complement clauses (of the kind in (10b)) comes from the "possessive paradigm", rather than the "predicative paradigm" (see Vinokurova 2005:204, 238). We take this as a mild form of support for our more general point that the assignment of case to a nominal—even for unmarked cases—is not intrinsically tied to the identity of whichever head might ultimately enter into an agreement relation with that nominal (though see Baker 2011 for a different take on such apparent mismatches).

and that therefore, while PRO$_{arb}$ might have referential φ-features (capable of conditioning, say, the appearance of φ-features on anaphoric pronouns), it lacks syntactically active φ-features, of the kind that could be targeted for agreement by a φ-probe.[9]

It is therefore not necessary to assume that examples like (10a–c) differ from one another in that (10a–b) contain a φ-probe while (10c) does not; instead, we can assume that all three examples contain φ-probes. The probe fails to find an appropriate target for φ-agreement in (10c), for reasons that are independently diagnosable (namely, the absence of an accessible, non-incorporated nominal bearing unmarked case).

It so happens that the exponent of D^0 in Sakha that has failed to find an appropriate target for φ-agreement is null; but this is not a necessary property of all φ-probes (see Preminger 2011:121 for discussion). Indeed, as we will see below, this is not true of T^0 in Sakha—though it can only be observed in tenses where the 3rd person singular cell of the T^0 paradigm is itself non-null (see §3.2, below).

When the participial relative fails to meet the conditions for (pseudo-)incorporation—when the verb is not unaccusative, its subject is non-adjacent to the verb, or the subject is not an indefinite— the head noun must bear possessive agreement with the embedded subject:

(11)   a.   **sibekki-ler** emiske   tyll-ar   kem-***(nere)**
               flower-PL   suddenly bloom-AOR time-***(3plP)**
               'a time when the flowers suddenly bloom'

        b.   **Masha** cej ih-er   caakky-***(ta)**
               Masha tea drink-AOR cup-***(3sgP)**
               'a cup that Masha drinks tea from'   [B&V:631–632]

On B&V's approach, the ungrammatical variants of (11a–b) are ruled out via the Case Filter (see above). Instead, we follow Bobaljik (2008) and Preminger (2011) in assuming that in every well-formed derivation in which an accessible and appropriately case-marked nominal is available, that nominal will be targeted by the φ-probe. Put another way, the overt expression of φ-agreement is no more optional than the expression of any other morphological property.

The ungrammatical variants of (11a–b) are therefore ruled out because there exists an accessible nominal bearing unmarked case (genitive, in this instance, since these nominals are within the spellout domain of DP), and so there is no well-formed derivation of these examples in which the reflex of agreement would not be observed.

3.2. Passives

B&V show that in passives that have no overt nominative argument, 3rd person singular agreement morphology must be realized on the verb:

(12)   Oqo-lor-**go**   at-tar-**y**   ber-ilin-**ne**/*-**ni-ler**
        child-PL-**DAT** horse-PL-**ACC** give-PASV-**PAST.3sgS**/*-**PAST-3plS**
        'The children were given horses.'   [B&V:633]

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[9]If this dissociation is real, it could bear on the debate concerning whether Binding Theory can be reduced to syntactic agreement relations (Reuland 2011, Rooryck & Vanden Wyngaerd 2011, inter alia). This issue, however, is clearly outside the scope of the current paper.

Compare this to (10c) above, where there is no accessible agreement target within the participial relative, and no agreement morphology appears whatsoever. For B&V, this is a difference between the presence of T^0 in (12), and the absence of D^0 in (10c). For us, all participial relatives come with D^0, and the relevant difference is between the exponent of D^0 that has failed to find an appropriate agreement target, which is null, and the exponent of T^0 that has failed to find one, which is syncretic with T^0 that has found a 3rd person singular agreement target.[10] While we must stipulate this difference in exponence between D^0 and T^0, we think it is not unreasonable that the morphophonological properties of two functional elements would differ in this manner.

We can also test this hypothesis against the assumption that PRO_{arb} is not a viable agreement target in Sakha (section 3.1). On the current hypothesis, finite clauses that contain PRO_{arb} and no other unmarked nominal should exhibit the characteristic exponent of T^0 that has failed to locate an agreement target—which unlike the corresponding exponent of D^0, is 3rd person singular, rather than null. This is precisely what one finds in examples like (13), an example of the "agentive" passive construction, in which there is no (overt) argument bearing nominative case, which agreement could have targeted:

(13) caakky-**ny** sorujan   ötüje-nen   aldjat-ylyn-**na**
      cup-ACC   intentionally hammer-INST break-PASV-**PAST.3sgS**
      'The cup was intentionally broken with a hammer.'   [B&V:609]

As was the case within the DP domain, when an agreement target that is deemed appropriate by the parametrization in (9) *is* present, the characteristic spellout of a φ-probe that has failed to find a target is no longer a possible outcome.[11]

(14) Masha-qa **at-tar**   ber-ilin-**ni-ler/***-**ne**
      Masha-DAT **horse-PL** give-PASV-**PAST-3plS/***-**PAST.3sgS**
      'The horses were given to Masha.'   [B&V:633]

This is again the result of the fact that when an appropriate and accessible agreement target is present, φ-agreement is in no way optional.

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[10]A reviewer raises a possible challenge to this approach, concerning the actual shape of the paradigms in question. The reviewer points out that in Sakha, those paradigms of T^0 in which 3rd person singular agreement is non-null (e.g. past, pluperfect, some instances of future; see Vinokurova 2005:238 for a summary) actually share their form with the possessive agreement paradigm. Crucially, we argued in §3.1 that the exponent of Sakha D^0 that has failed to find an agreement target is null; whereas on our analysis of examples like (12), this cannot be the case for Sakha T^0, even when using the "possessive" paradigm.

We are not certain that this is a problem. It is not completely clear what this instance of paradigmatic syncretism entails syntactically. Concretely, we do not think that the identity of morphological forms between the possessive paradigm and the past-tense paradigm means, e.g., that there is a D^0 head within the past-tense functional structure, or that there is a past-tense T^0 within possessives' functional structure. (To be clear, this was not the reviewer's implication, either.) In other words, there are still two different lexical items, T^0 and D^0, involved in each construction; and if the two lexical items are distinct from one another, there is no reason why the exponent that arises upon failed φ-probing could not be null for one of the two (D^0) and syncretic with 3rd person singular agreement in the other (T^0)

[11]We assume here that the lack of appropriate φ-features on PRO_{arb} (see the discussion in §3.1) means that it is simply ignored by T^0, not that it halts probing by T^0 (see Preminger 2011:105–110 for a discussion of this distinction).

3.3. Complex DPs

Other patterns of φ-agreement within the Sakha DP also follow from the parametrization given in (9), above. Consider (15):

(15) terilte-ni   **salaj-yy**   [=(7a)]
       company-ACC **manage-EV.NOML**
       'the management of the company'   [B&V:634]

The overt Patient (*terilte-ni* "company-ACC") is marked with accusative case. Since accusative is a dependent case—assigned here because of the presence of an implicit external argument, on a par with agentive passives (B&V:609; cf. (13))—the Patient argument is ineligible as a target for φ-agreement by D^0. The implicit external argument, which we assume is PRO_{arb}, does not constitute a viable agreement target, either (§3.1–§3.2). Finally, the bare nominal *salaj* "manage" is not a viable agreement target for its own D^0, since it is not a complete extended nominal projection.[12]

As discussed in sections 3.1–3.2, the exponent of D^0 that has failed to find an appropriate target for φ-agreement in Sakha, unlike T^0, is null. The absence of any overt "possessive agreement" in an example like (15) is therefore predicted.

Compare this state of affairs with complex nominals containing a possessor or an overt subject:

(16) a. **Aisen** aqa-*(**ta**)
          Aisen father-*(**3sgP**)
          'Aisen's father'

      b. **Masha** terilte-ni   salaj-yy-*(**ta**)   [=(7b)]
          Masha company-ACC manage-EV.NOML-*(**3SG.POSS**)
          'Masha's managing the company'   [B&V:634]

As noted by B&V, the bolded arguments in (16a–b) bear genitive case (which can be tested by adding a possessor to the arguments themselves). Since genitive is unmarked case within the DP

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[12]A reviewer points out that the number exponent behaves slightly differently. As the data below show, the plural exponent on a given nominal can signal either the plurality of the nominal itself, the plurality of its possessor, or both:

(i)   a.   kinige   'book'   [*Baker & Vinokurova 2013*]
      b.   kinige-ler   'books'
      c.   kinige-te   'his/her book'
      d.   kinige-ler-e   'their book'/'his books'/'their books'

(ii) * kinige-ler-ler-e

Assuming that the ungrammaticality of (ii) is more than just a matter of haplology, we think this pattern can be analyzed as follows. Suppose that plural features within the noun phrase originate on Num^0, a projection that is higher than N^0 but lower than D^0 (Ritter 1991, 1992, inter alia). It is then possible that *-lAr* is actually the exponent of D^0 that has entered into an agreement relation with another plural-bearing XP. (The exponence of Num^0, on this view, is always null.) The XP in question could be the NumP sister of D^0, if its own Num^0 head bears plural; or it could be another complete DP that bears its own plural features (e.g. a plural possessor). The latter could be base-generated as a plural DP (if one adopts such an approach to plural pronouns), or received its plural features derivationally via the very same mechanism (i.e., its own D^0 head probing its own NumP layer; cf. Preminger 2009:630–631).

If so, what sets person and number apart is that person is a D(P)-level feature, and therefore cannot be found on something smaller than a complete extended nominal projection (and in particular, cannot be found by D^0 probing its own complement unless that complement contains a complete, distinct DP); whereas number can be found by D^0 probing its own NumP complement.

domain, these arguments qualify as agreement targets, and they are clearly within the domain of the outermost D^0. Once again, given that φ-agreement is in no way optional, we derive the data in (16a–b), as well.

3.4. Complex tense constructions

One of the key arguments put forth by B&V in favor of nominative and genitive being assigned by functional heads involves the absence of "double agreement" in constructions in Sakha where one might otherwise expect it to be possible. (We use the term "double agreement" to refer to a situation in which more than one verb or verb-like element agrees with a single nominal argument.) Consider the following complex tense constructions:

(17) a. **en** süüj-büt e-bik-**kin**
          you win-PRT AUX-PRT-**2sgS**
          'The result is that you won.'

      b. **en** süüj-büt-**kün** e-bik
          you win-PRT-**2sgS** AUX-PRT
          'The result is that you won.'

(18)   * **en** süüj-büt e-bik
          you win-PTPL AUX-PTPL

(19)   * **en** süüj-büt-**kün** e-bik-**kin**
          you win-PTPL-**2sgS** AUX-PTPL-**2sgS**   [B&V:637]

As shown in these examples, it is possible in these Sakha constructions for overt φ-agreement to appear on either the auxiliary (17a) or the lexical verb (17b). What is not possible is for overt φ-agreement to appear on neither participle (18), nor is it possible for it to appear simultaneously on both (19).

B&V propose that participles optionally come with an abstract agreement-bearing head—call it F^0—that is generated immediately above them. The acceptability of both (17a) and (17b) is thus attributed to the variable position of this head: in (17b), F^0 is generated immediately above the lexical verb, where as in (17a) it is generated immediately above the auxiliary. In either scenario, syntactic agreement obtains between the functional head F^0 and the subject, *en* "you", assigning case to the latter and valuing the φ-features on the former.

As was the case with the unincorporated subjects in (11a–b), B&V attribute the ill-formedness of (18) to a violation of the Case Filter. In particular, the lack of agreement morphology is taken to indicate that no agreement-bearing head such as F^0 has been merged into the structure (neither above the verb, nor above the auxiliary), meaning case cannot be assigned to the nominal in question, yielding ungrammaticality.

Finally, the ill-formedness of (19) is taken to follow from Chomsky's (2000, 2001) *Activity Condition*: the inability of noun phrases which have already entered into successful agreement relations, and thus have been assigned case, to enter into further agreement relations. Agreement between the instance of F^0 generated immediately above the verb and the subject *en* "you" is taken to both value the φ-features on this instance of F^0, and to assign (nominative) case to the nominal.

This renders the nominal *inactive* for further agreement relations; a second F^0, generated above the auxiliary, would thus be unable to target the same nominal for subsequent agreement relations.

Here, too, we argue that there exists a comparably successful analysis which does not require recourse to case assignment by functional heads. We base our alternative on the following premises: **(i)** if there is an accessible nominal goal, the φ-probe must agree with it; **(ii)** exactly one "subject agreement" φ-probe is merged per clause; **(iii)** the overt spellout of this φ-probe can end up affixed to either of the participles.

For the most part, these premises are not novel. Premise (i) is well established, and was discussed in greater detail in §3.1. Regarding (ii), we will argue below that deriving it from the Activity Condition is undesirable; as a result, the theoretical status of (ii) (i.e., whether it is a principle unto itself, a side effect of certain lexical properties, or the result of something else) remains unclear. What is clear is that it is in no way unique to Sakha; we routinely assume that finite clauses contain exactly one $Infl^0$; that nominals contain exactly one D^0; and so forth.

That leaves ((iii)). This premise can follow from one of several fairly benign syntactic assumptions. First, the base-generated order of heads could be subject to variation, allowing the φ-probe to be base-generated immediately above either the verb or the auxiliary, as in (20a–b). (As noted earlier, this is precisely what B&V themselves assume; see B&V:637–638.) Alternatively, the two possible spellouts could arise via head-movement of the φ-probe, as in (21a–b).

(20)   a. $[[[\ldots PtplV^0] Infl^0] PtplAux^0]$ $\Rightarrow$ $\ldots PtplV^0\text{-}[\varphi\text{-agr.}] \; PtplAux^0$
    b. $[[[\ldots PtplV^0] PtplAux^0] Infl^0]$ $\Rightarrow$ $\ldots PtplV^0 \; PtplAux^0\text{-}[\varphi\text{-agr.}]$

(21)   a. $[[[\ldots PtplV^0] Infl^0] PtplAux^0]$ $\Rightarrow$ $\ldots PtplV^0\text{-}[\varphi\text{-agr.}] \; PtplAux^0$
    b. $[[[\ldots PtplV^0] t_{Infl^0}] PtplAux^0\text{-}Infl^0]$ $\Rightarrow$ $\ldots PtplV^0 \; PtplAux^0\text{-}[\varphi\text{-agr.}]$

As alluded to earlier, it is potentially problematic to make use of the Activity Condition to account for the unacceptability of double agreement (as B&V's account does). The reason is that cross-linguistically, there are close counterparts of (19) which—unlike in Sakha—*do* allow (and in some cases, even demand) agreement on both the verb and the auxiliary. An example from Hindi-Urdu is given in (22):

(22)   Rahul-ne **kitaab** par:h-**ii**   th**ii**   (Hindi-Urdu)
    Rahul-ERG **book**_{FEM} read-PRFV.**FEM** be.PAST.**FEM.sg**
    'Rahul had read the book.'   [*Bhatt 2005:759*]

If one accepts that (22) is indeed parallel to the complex tense constructions of Sakha, then one might be wary of accounting for the unacceptability of (19) by appealing to a *principle* (such as the Activity Condition). Instead, we might prefer an account appealing to a *parameter*, such as whether both links in a head-movement chain like (21b) can/must be simultaneously pronounced at PF (cf. Landau 2006, for example).[13]

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[13]We suspect that this issue has not gone unnoticed by B&V, who mention (p. 636, fn. 32) Baker's (2008:155ff.) proposal that the Activity Condition, or something very close to it, should itself be parametrizable. Nevertheless, the point in the main text stands: it is nearly uncontroversial that properties such as, say, the rules of pronunciation at PF, are subject to cross-linguistic variation. The approach we pursue is therefore better positioned to reduce the difference between Sakha on the one hand (19), and Hindi-Urdu on the other (22), to well established parameters of linguistic variation.

3.5. Raising constructions

In Sakha raising constructions, it is possible to find what looks like agreement with a nominal that bears accusative or dative case:[14]

(23) a. min **ehigi-ni** bügün kyaj-yax-**xyt**   dien erem-mit-im
      I   **you-ACC** today   win-FUT-**2plS** that hope-PAST-1sgS
      'I hoped you would win today.'

   b. **Misha-qa**   beqehee at-**a**   öl-lö
      Misha-DAT yesterday horse-**3sgP** die-PAST.3sgS
      'Misha's horse died (on him) yesterday.'   [B&V:621]

At first glance, this appears to violate the generalization given in (9), whereby only noun phrases bearing unmarked case may be targeted for agreement by T^0 and D^0 in Sakha.

   However, the crucial question is whether the noun phrases in question bear dependent case *at the point in the derivation at which they are targeted by the relevant agreement probes*. The answer to this question depends on specific assumptions regarding the precise timing of the derivation. Let us therefore adopt certain explicit assumptions: as noted in §1, we follow B&V in assuming that all case, even if configurationally assigned, is computed within syntax proper. More concretely, we adopt Preminger's (2011) syntax-internal implementation of configurational case assignment and agreement. On this view, 'unmarked case' is just the morphological spellout of a noun phrase that has gone through the entire course of the syntactic derivation without getting lexical or dependent case (Preminger 2011:154). This means that prior to being assigned dependent case, the accusative and dative nominals in (23a–b), respectively, are indistinguishable—featurally speaking—from other unmarked nominals (e.g. nominative finite subjects).

   Both in (23a) and in (23b), the relevant noun phrase does not receive dependent case (which would render it inaccessible to agreement) until *after* it moves out of the domain in which the relevant agreement probe is located. In (23a), *ehigi* "you" moves out of the TP complement of *dien* "that", and only then is it close enough to the matrix subject *min* "I" to enter into case competition with it and receive accusative case. On B&V's analysis of possessor raising (B&V:621), the derivation of (23b) involves *Misha* moving out of extended nominal projection of "horse" and into [Spec,VP] of "die", where it is assigned dative via case competition with the noun phrase from which it has subextracted.

   Thus, at the point in the derivation at which the embedded agreement probes in (23a–b) targeted these nominals, they did not yet bear case marking that would distinguish them from unmarked (i.e., nominative or genitive) nominals.[15] Therefore, these data do not constitute an instance of T^0 or D^0 in Sakha agreeing with a nominal bearing something other than unmarked case.

   We also acknowledge that (21b), coupled with PF pronunciation of both links of the head movement chain, is not the analysis of (22) put forth by Bhatt (2005), from whom this example is taken. Our point is merely that cross-linguistic counterparts of the Sakha (19) do exist—and that some behave in a fashion opposite of Sakha—suggesting the need for an account of (19) that is based on parameters, rather than principles alone.

   [14] We thank a reviewer for helpful discussion of this topic.

   [15] A reviewer asks whether we would then predict that raising out of impersonal predicates would render the raised subject eligible for agreement by the matrix predicate (given that the raised subject in such cases does not receive accusative case; B&V:619–620). The answer would depend, we think, on whether such impersonal subjects have a *pro* subject (an issue which B&V remain undecided on; p. 619), and if so, whether this *pro* would count as an agreement target for T^0.

The same fundamental observation—that a noun phrase can trigger a process reserved for unmarked phrases, and then subsequently receive dependent case—is also at the core of B&V's treatment of case in ditransitives (B&V:602–603). Recall that dependent case can only arise when two noun phrases, both of which are still caseless, enter into a case competition relation. In a ditransitive, the Patient—while still caseless—triggers dative case on the indirect object through case competition, and subsequently (if it is definite/specific) moves into a position where it can itself receive accusative through case competition with the subject. Crucially, an already accusative-marked Patient could not have entered into case competition with the indirect object.

In these raising constructions, the very same pattern emerges, but the process triggered while the noun phrase in question is still caseless (and which could not have applied to a noun phrase bearing dependent case) is φ-agreement, rather than case competition.

4. Incorporation and the Case Filter

In this section, we discuss the status of (pseudo-)incorporated objects with respect to the configurational theory of case. Recall that direct objects which have remained within the VP (and thus receive a non-specific or indefinite interpretation) must be adjacent to the verb, a fact that B&V analyze in terms of (pseudo-)incorporation (section 3.1). B&V are not completely clear on how the configurational rules in (4a–b) treat such objects (see B&V:629; fn. 27). It seems plausible to us to treat incorporation itself as an operation that creates a syntactic chain, the head of which behaves as an X^0/X^{min} and the tail of which behaves as an XP/X^{max} (see Harizanov 2014 for an approach to clitic doubling along the same lines).

(24)

$$
\begin{array}{c}
\text{VP} \\
\quad\quad\quad\quad \text{V}^0 \\
\quad\quad\quad \text{N}^0 \quad\quad \text{V}^0 \\
\text{N(P)}
\end{array}
$$
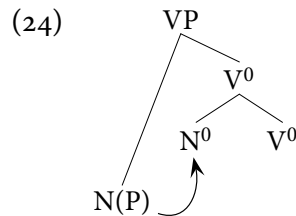
Since case-competition is a relation between maximal projections, only the tail position of this chain would be relevant for the assignment of dependent case. The tail could act as a case-competitor for the purposes of (4a), yielding dative case on the indirect object of a ditransitive:

(25)

$$
\begin{array}{c}
\text{VP} \\
\text{NP}_{IO} \quad\quad \text{V'} \\
\quad\quad\quad\quad\quad \text{V}^0 \\
\quad\quad\quad\quad \text{N}^0 \quad\quad \text{V}^0 \\
\quad\quad \text{N(P)}
\end{array}
$$
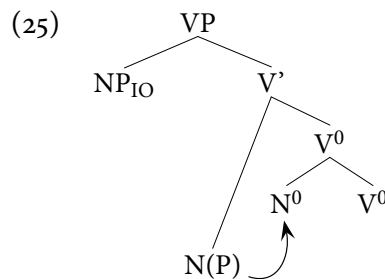
But since the only *phrasal* position occupied by this incorporated direct object is properly contained within VP, the object is not eligible for accusative case under (4b), which requires the object to occupy a position in the same phase as the subject.

Given this analysis, the question is what explains the ungrammaticality of a direct object that is neither accusative nor adjacent to the verb, as in (26):

(26) Masha salamaat-*(y)   **turgennik** sie-te
      Masha porridge-*(**ACC**) **quickly**   eat-PAST.3sgS
      'Masha ate the porridge quickly.'

For B&V, the ungrammatical variant of (26) is ruled out because **(i)** the intervening adverb indicates that the object has not incorporated into the verb, and **(ii)** the lack of overt accusative marking on the Patient indicates the absence of case assignment. (As noted in §3, B&V assume that a non-incorporated caseless object triggers a violation of the Case Filter.)

In section 3, we proposed an account of case in Sakha that is entirely configurational, and does not involve recourse to the Case Filter.[16] It is therefore important to consider whether we can explain the status of the ungrammatical variant of (26) without recourse to the Case Filter, as well.

Suppose that there is simply no landing site for direct objects that is distinct from their base position but still properly contained within the VP-level phase—i.e., not at the edge of the phase (see below for a discussion of how a prohibition like (27) may be derived):

(27) * [$\left(\begin{smallmatrix} VP\text{-}level \\ phase\ edge \end{smallmatrix}\right)$ [$_{VP\text{-}level\ phasal\ domain}$ NP … [$_{V'}$ t$_{NP}$ V^0]]]

If *turgennik* "quickly" is a VP-level adverb, as B&V take it to be, it then follows that the pre-adverbial position of *salamaat* "porridge" in (26) is part of the higher phase, along with the overt subject *Masha*. The object must therefore receive dependent accusative, as per (4b), given that the rules of configurational case assignment are obligatory.
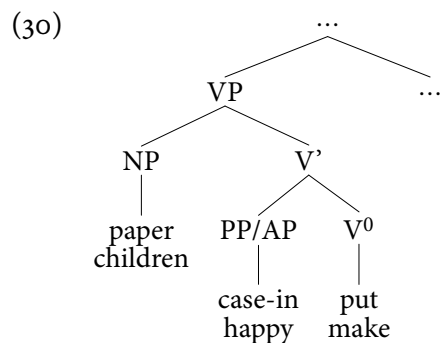
A reviewer wonders about the applicability of this analysis to resultative secondary predication structures, as in (28–29):

(28) a. Misha kumaaqy-ny **xoruopka-qa** uk-ta.
          Misha paper-ACC   **case-DAT**   put-PAST.3sgS
          'Misha put the paper in the case.'

      b. bu oqo-lor-u   djolloox oŋor-but-a
          this child-PL-ACC happy   make-PTPL-3sgS
          'This made (the) children happy.'

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

      b. * bu oqo **djolloox** ongor-or
          this child **happy**   make-AOR.3sgS
          'This makes a child/children happy.'   [B&V:627–629]

B&V argue that examples like these have the structure in (30) (p. 627), providing evidence that precisely in resultative constructions, the secondary predicate (rather than the Patient) is the complement of V^0:

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[16]It is perhaps worth noting that the specific proposal for configurational case assignment that B&V build upon is that of Marantz (1991), a proposal which in its original form, explicitly eschews the Case Filter.

(30)

```
                    ...
             ╱           ╲
           VP             ...
          ╱  ╲
        NP    V'
         |   ╱  ╲
      paper PP/AP  V⁰
    children  |     |
           case-in  put
            happy   make
```

Notice that in this structure, the Patient ("paper/children") is already in the specifier position of VP, and therefore by hypothesis, accessible to case competition with the subject. Given that the application of (4b) is obligatory, it follows that the Patient in constructions like these will have to bear accusative, correctly predicting the ill-formedness of (29a–b).[17]

Data like (26, 28–29) can therefore be accounted for without recourse to the Case Filter. This may seem like a relatively minor achievement, as it has come at the cost of a particular assumption regarding the syntax of Sakha VPs—namely, the prohibition in (27). But this prohibition may itself be derivable. Suppose, for example, that we have been calling the "VP-level phase" is VP proper (this is the presentational choice made by B&V as well; though see B&V:599, fn. 4). Any movement from [Compl,V] would then already be to the phase edge, a position from which case competition with the subject could not be avoided.[18]

5. Conclusion

We have presented an alternative to Baker & Vinokurova's (2010) analysis of case in Sakha. We have argued that contra Baker & Vinokurova's claims, the facts regarding case and agreement in Sakha do not necessitate a "hybrid" theory, which resorts both to configurational rules of case assignment (Bittner & Hale 1996, Marantz 1991, Yip, Maling & Jackendoff 1987) and to case assignment by functional heads (Chomsky 2000, 2001).

Instead, we have presented an account of case in Sakha that is entirely configurational. The key innovation lies in abandoning Chomsky's (2000, 2001) assumptions about the causal relation between case and agreement, assumptions which Baker & Vinokurova tacitly adopt. We replace

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[17] A reviewer asks about the possibilities of (pseudo-)incorporation predicted by a structure like (30), noting that (pseudo-)incorporation in these cases is possible, provided the resultative PP/AP moves leftward (B&V:629). Like B&V, we assume that it is not required that the incorporated Theme be in [Compl,V]. (In fact, (30) is the same structure given by B&V for such resultatives.) Instead, adjacency is sufficient. A different question is why leftward movement of the resultative predicate bleeds accusative case assignment. Suppose such movement lands in a second specifier of VP. Since the first specifier, the Theme, is base generated, tucking-in (Richards 2001) would not apply, and the resultative would land in an outer specifier. We tentatively assume that only the outermost specifier of VP is visible for the purposes of case competition with other noun phrases outside of VP. (Note also that we are assuming, with B&V, that VP rather than vP is the relevant phasal category, for Sakha.) This results in a non-accusative-marked, V-adjacent Theme, which can then undergo (pseudo-)incorporation.

[18] Alternatively, we may derive (27) from the assumption that all movement operations within a given phase are necessarily triggered by the phase head (Chomsky 2008). On this view, movement from a position in a given phase to a second position within the same phase would not be able to create probe-goal relations not already possible before such movement, and would therefore be ruled out by considerations of derivational economy.

these assumptions with Bobaljik's (2008) and Preminger's (2011) alternative: that agreement scans the landscape of already case-marked nominals in search of an appropriate target. This move allows nominative and genitive—the two cases argued by Baker & Vinokurova to be assigned by functional heads—and their co-occurrence patterns with overt φ-agreement, to be modeled in a fully configurational manner (as the unmarked case in the domain of TP and DP, respectively).

The empirical gains in adopting our alternative proposal have been modest, and depend heavily on how one interprets the relation between Sakha complex tense constructions and their cross-linguistic counterparts. However, from a theoretical standpoint, we believe the gains of the proposed alternative to be significant. The conclusion that Baker & Vinokurova draw from the Sakha facts is that a configurational system of case assignment is required alongside the functional head strategy, within one and the same language. Such a result might suggest a parameterization of case assignment strategies, whereby a single language may employ the configurational strategy, the functional head strategy, or both strategies at once. But in constructing a viable, fully configurational alternative to Baker & Vinokurova's proposal, we hope to have shown that the facts of Sakha do not warrant such a conclusion. Barring further evidence to the contrary, this suggests that configurational case assignment, rather than being one parametric option, may be the only case assignment mechanism employed by natural language.

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