

Forms of Predication in Sakha (Turkic):
Will the True Lexical Predicates Please Stand Up?

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Abstract: There have been debates in the literature about which lexical categories are intrinsically predicates in which languages. A long-standing tradition in both syntax and semantics claims that *all* lexical categories—verbs, nouns, and adjectives—can be predicates in themselves, whereas Chierchia (1998) says that nouns are predicates in some languages but not others. In contrast to both of these views, Baker (2003) claims that only verbs are intrinsically predicates; nouns and adjectives can function as predicates only by combining with a predicative functional category, called Pred. Baker’s view fits well with the fact that copular verbs and particles must be used with predicate nominals and adjectives but not with verbs in many languages (*Chris *(is) a linguist*, *Chris *(is) tall*, but *Chris works*). But the distribution of copular elements is complex and highly variable across languages, and this can be used to challenge Baker’s view and support alternatives. For example, the Turkic language Sakha has a set of environments in which a copular verb must be used with a predicative nominal, but not with a predicative adjective or a verb. These environments include embedded clausal complements, immediate past tense sentences, and relative clauses, among others. Vinokurova 2005 uses data like these to argue that adjectives are like verbs and unlike nouns in that they are intrinsically predicative, at least in Sakha and perhaps in all languages. In this paper, we develop an alternative analysis of these facts which is consistent with Baker’s approach to lexical categories. In particular, we propose that, whenever a copula is needed with a nominal predicate but not an adjectival one in Sakha, this is to fulfill the Distinctness condition of Richards 2006.

1. Introduction: the standard view, an alternative, and a problem for both

The standard view in both the syntax and semantics literatures has been that all three major lexical categories—verbs, nouns, and adjectives—are (or at least can be) intrinsically one (or more)-place predicates. In this respect, all three categories have taken to be on a par in terms of their most basic syntax and semantics. From a syntactic perspective, this supposed similarity is seen most clearly in so-called small clause contexts, in which a predication is embedded under a causative verb like *make* or an epistemic verb like *consider*. Such verbs can be followed by a constituent consisting of an NP/DP subject and a predicate headed by a verb, adjective, or noun, with no other overt supporting material, as shown by (1) (Stowell 1983).

- | | | | |
|-----|----|-------------------------|----------------------|
| (1) | a. | I made [John fall]. | Verbal predicate |
| | b. | I made [John happy] | Adjectival predicate |
| | c. | I made [John a captain] | Nominal predicate |

Of course, we do not see such a neat parallelism across the lexical categories in simple matrix clause environments in English. There an asymmetry is found, with verb phrases looking like simple predicates, whereas adjective phrases and noun phrases can only serve as predicates with the support of a copular verb, some form of the verb *be*.

- | | | | |
|-----|--------------------|------------------------------|----------------------|
| (2) | a. John falls. | | Verbal predicate |
| | b. John is happy. | (*John happy; *John happies) | Adjectival predicate |
| | c. John is a hero. | (*John a hero; *John heroes) | Noun predicate |

The standard view takes (2) to be rather misleading, the result of surface morphological complications. In particular, it arises because (i) tense needs to be expressed overtly in main clauses in English, and (ii) tense is realized as a morpheme that can affix to a verb root, but not to an adjectival root or a noun root. As a result, a semantically vacuous copular verb must be included in the structure in (2b,c), so that the tense affix will have a root that it can attach to. The paradigm in (2) is thus explained in approximately the same way that *do*-support phenomena are explained in English, in the tradition going back to Chomsky 1957.

Encouragement for this standard view is the fact that in various other languages, predicates headed by the different lexical categories look more similar even in matrix clauses. For example, present tense is not morphologically realized in Semitic languages like Hebrew and Arabic; as a result ‘small clauses’ like *John happy* and *John hero* can be used as matrix clauses in these languages (Rapoport 1987, Benmamoun 2000). In other languages, there is tense-agreement marking in the present, but the relevant morphology is less fussy, and can attach to roots of all lexical categories. Turkish is a familiar language of this sort (Wetzer 1996, Stassen 1997:46, Baker 2003:52); so is its distant relative in the Turkic family, Sakha, as shown in (3). Here the same morpheme representing present tense and first person agreement features, *-bit* and its allomorphs, can attach to words of all lexical categories (Vinokurova 2005):¹

¹ Abbreviations used in the glosses include: ACC, accusative case; AOR, aorist (nonpast) participle; AUX, auxiliary root; CAUS, causative; DAT, dative case; FUT, future tense/participle; GEN, genitive; LOC, locative; NEG, negation; NOML, nominalizer; NSF, Inflectional noun suffix; NV, Vinokurova 2005; PASS, passive voice; PAST, (recent) past tense; PL, plural number; PTPL, past participle/remote past tense; SG, singular number; STAT, stative aspect; SUBJ, subject. Agreement morphemes are glossed with a three part symbol, including a number indicating the person of the agreed with phrase (1, 2, or 3), a lower case letter indicating the number of the agreed with argument (s or p), and an upper case letter indicating the paradigm that the agreement form belongs to (S for “predicative” (normal subject agreement) or P for “possessive”). See section 5 for an analysis of the nature of the distinction between the “predicative” and “possessive” agreement paradigms in Sakha.

The reader should be warned that many phonological changes apply to suffixes in Sakha. It has a Turkish-style system of vowel harmony, and consonants also undergo many assimilation processes. As a result, what is the same morpheme can have quite different looking allomorphs in different examples.

- (3) a. Bihigi bil-e-bit. Verb
we know-AOR-1pS
‘We know’
- b. Bihigi bytaam-myt. Adjective
we slow-1pS
‘We are slow.’
- c. Bihigi balyksyt-tar-byt. Noun
we fishermen-PL-1pS
‘We are fishermen.’

So so far, so good for the standard theory.²

But a serious drawback of the standard view is that it has no principled explanation for other, non-morphological differences between verbs on the one hand and adjectives and nouns on the other. Some of these are syntactic, apparently having little or nothing to do with morphology per se. For example, it is well-known since Belletti and Rizzi (1981) and Burzio (1986) that the post-verbal subjects of certain non-agentive verbs in Italian (so-called unaccusative verbs) can be expressed as a *ne*-clitic attached to the tense node. However, the post-verbal subjects of most adjectival predicates and nominal predicates cannot be expressed in this way (Cinque 1990a, Baker 2003):

- (4) a. Ne sono affondate due. V: OK
of.them are sunk two (Burzio 1986, Cinque 1990a)
‘Two of them sank.’
- b. *Ne sono buoni pochi (dei suoi articoli). A: bad
of.them are good few (of his articles) (Cinque 1990a:7)
‘Few of them are good.’
- c. ?*Ne sono professori molti N: bad
of-them are professors many (Baker 2003)
‘Many of them are professors.’

As such, nonverbal predicates behave more like unergative (agentive) verbal predicates than like the thematically more similar unaccusative predicates.

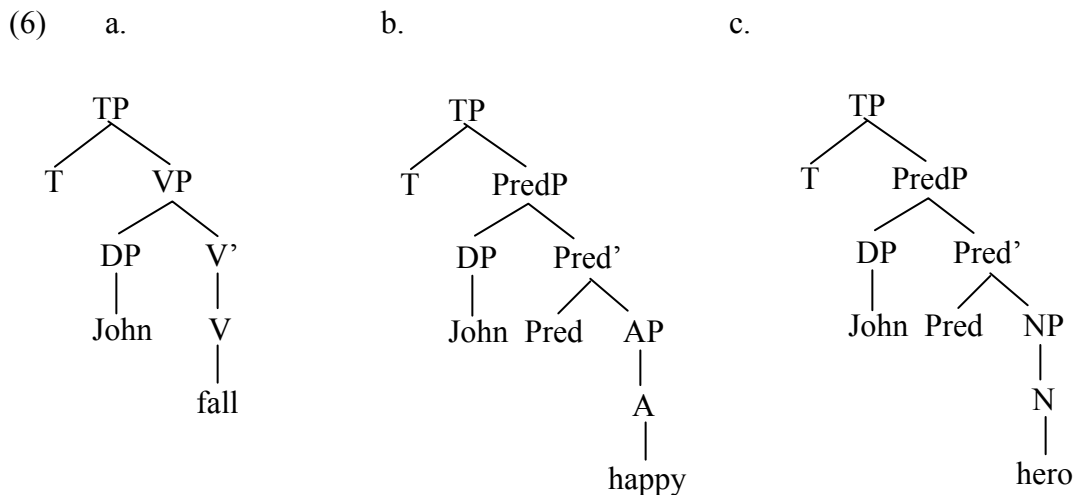
A very similar phenomenon can be seen in languages that allow syntactic noun incorporation, such as Mohawk and Wichita. In these languages, the sole argument of a

² Certain cracks can already be seen in the standard theory, though. For example, it is not so clear why the verb *do* is used to support an unaffixable tense in some situations (*I did/*was not read the assignment*), whereas the verb *be* is used to support tense here (*I was/*did happy yesterday*). Moreover, future tense is not expressed by an affix in English, but *be* is needed with nominal and adjectival predications even in the future (*I will *(be) happy tomorrow; Chris will *(be) a hero*). However, Baker’s (2003) alternative does not do much to advance our understanding of these details, so we leave them aside here.

predicate can be incorporated into the predicate to form a kind of compound word when the predicate is an (unaccusative) verb, but never when it is an adjective or a noun:

- (5) a. Hánnhirh ta:c-ehe:k-?irhawi. (Wichita: NI into V)
 ground.LOC T/AGR-cloth-be.lying (Rood 1976:5)
 ‘The cloth is lying on the ground.’
- b. *né:rhir?as-tac ti-?i. (OK: tac ti-?i né:rhir?a)
 buffalo-fat T/AGR-be fat T/AGR-be buffalo
 ‘The buffalo is fat.’ (Wichita: no NI into A; Rood 1976:13)
 (Also OK: *tac ti-ré:rhir?as-?i* ‘The buffalo is fat.’)
- c. *Ka-nerohkw-a-nuhs-a’ (OK: Ka-nuhs-a’ ne o-nerohkwa-kvha.)
 Ns-box-Ø-house-NSF Ns-house-NSF NE Ns-box-former
 ‘That box is a house.’ (Mohawk: no NI into N)
 (e.g., a child’s playhouse, or a homeless person’s shelter)

Facts like these led Baker (2003) to a different view. He claimed that these patterns can be explained in a principled way if V is an intrinsic predicate, taking an NP argument directly, whereas A and N cannot be intrinsically predicative. A and N can only function as predicates if they are turned into predicates, by being used as a complement of a functional head that Baker calls Pred (after (Bowers 1993)).³ On this view, the underlying structures of examples like would be roughly as in (6).



³ Part of the inspiration for Baker’s view also came from Chierchia (1998), who claims that nouns are intrinsically predicates in some languages (e.g. Italian), whereas they are inherently arguments in others (e.g. Chinese). Part of Baker’s idea was to extend Chierchia’s view of the nature of nouns in some languages to adjectives and nouns in all languages. In this way the formal apparatus of Chierchia and Turner 1988 is used to model the verb-nonverb distinction, rather than the mass noun-count noun distinction, as in Chierchia 1998.

The subject DP subsequently raises to Spec, TP in all three structures. Examples like those in (1) are created by embedding VP or PredP as the complement of the verb *make*, rather than as a complement of Tense.

Given structures like those in (6), the asymmetry in noun incorporation shown in (5) follows immediately if one says that the head of a noun phrase can incorporate into another lexical category only if the noun phrase is immediately contained in a projection of that lexical category—essentially the Head Movement Constraint of Travis 1984, Baker 1988, and subsequent work. The Italian paradigm in (4) can be explained in a similar way; here one can say that the trace of the clitic *ne* needs to obey some (ECP-like) licensing condition, which holds only if the nominal it is extracted from merges directly with a lexical category; see Baker 2003:62-70 for details. Similar effects can be found for possessor raising in Hebrew, for genitive of negation in Russian, and so on.

With results like this in mind, Baker 2003 then reconsiders the distribution of copular elements in English and other languages. If the structures of predication are as shown in (6), one would expect the head Pred to be overtly realized in some languages on the surface. Baker 2003 claims that this is true for various African languages, including the Nigerian language Edo. This language has nonverbal copular particles that are used when and only when an adjective or noun is used predicatively, in both matrix clauses comparable to (2) and embedded contexts comparable to (1)—exactly the distribution one would expect if these are Pred heads in Baker’s sense.

- (7) a. Úyì yá [èmátòn pèrhé]. (also OK with only material in brackets)
 Uyi made metal be.flatV
 ‘Uyi made the metal be flat.’
- b. Úyì yá [èmátòn *(yé) pèrhè]. (same with only material in brackets)
 Uyi made metal PRED flatA
 ‘Uyi made the metal flat.’
- c. Òzó yá [Úyì *(rè) òkhaèmwèn]. (same with only material in brackets)
 Ozo made Uyi PRED chief
 ‘Ozo made Uyi a chief.’

Baker goes on to claim that the similar looking paradigm in English (2) is a somewhat less direct reflection of the same underlying structural fact. Pred itself is phonologically null in English and most other languages in the greater European region (hence the difference between English (1) and Edo (7)), but it is the phonologically null Pred in (6b) and (6c) intervenes structurally between T and A/N, thereby preventing T from affixing to A or N, making a verb root (*be*) necessary. In contrast, there is no corresponding functional head in (6a) to prevent T from affixing to the verb, and *be* is not necessary.

This account constitutes a minor advance over the standard account of (2), Baker claimed. As in the standard view, *be* is inserted to bear the Tense when T cannot affix to a suitable host. Unlike the standard view, however, it is no longer necessary to stipulate which lexical categories are suitable hosts for T and which are not; this follows from independently motivated assumptions about the underlying syntactic structure. In the standard view, it would be slightly perverse but entirely possible for a language to have a

tense marker that affixes only to (say) adjectives, but not to verbs or nouns. Such a language would have a paradigm like the one schematized in (8)

- (8) a. John is fall. Verbal predicate (Hypothetical language, unattested)
 b. John happies. Adjectival predicate
 c. John is a hero. Noun predicate

But no such language is known, according to Stassen's extensive survey of 410 languages (Stassen 1997:41-43). For Baker's account, this is not accidental: the structure of a verbal predication is intrinsically simpler than the structure of a nominal or adjectival predication. Thus, if it is ever possible for Tense to attach to the lexical head, it will predictably be in verbal sentences.

Now paradigms like (3) in Sakha show us that Pred does not always block T from affixing to A or N. Baker claims that present tense in languages like this is really a clitic rather than an affix; as such, it can attach to any phonological word that is string-adjacent to it on the surface, regardless of the word's category or any intervening syntactic structure.⁴ Of course, whether a given T is a clitic or an affix varies from language to language—and even from morpheme to morpheme in a single language. Baker (2003) thus shows that future tense in Turkish has the English-like pattern: it can affix only to verbs, not to adjectives or verbs. (9) shows that the same is true for future tense in Sakha:

- (9) a. En aaq-yaq-yŋ. (NV:221)
 You read-FUT-2sP
 'You will read.'
- b. *En bytaan-yaq-yŋ; En bytaan buol-uoq-uŋ (see also NV: 232)
 *Youslow-FUT-2sP You slow be-FUT-2sP
 'You will be slow.'
- c. *You professor-yaq-yŋ; En professor buol-uoq-uŋ
 *You professor-FUT-2sP You professor be-FUT-2sP
 'You will be a professor.'

Indeed, most tenses are like future in this respect, rather than like present tense; for example, exactly the same paradigm is found with remote past tense *-BYT*, not to mention the nominalizing/gerund suffix *-YY*, and the adverbial suffix *-n*. So the difference between Turkish/Sakha and English when it comes to the distribution of copular verbs is not as great as it might seem at first.

⁴ Somewhat more technically, Baker assumes that tense markers in languages like English (and future in Sakha) are specified as needing to attach to a lexical head, rather than a functional head. Verbs are intrinsic predicates and lexical heads both, so the tense markers can attach to them. Adjectives and nouns are lexical heads, but not intrinsic predicates; as such, they need to be embedded in PredPs in order to function as predicates. Pred is a functional head between A/N and tense; hence tense cannot attach directly to the lexical head A/N, but must attach to the composite head A/N+Pred. This composite head inherits the functional qualities of Pred, so the attachment is ruled out.

Overall, then, Baker 2003 reverses the view of the standard theory when it comes to the distribution of copular verbs. On the standard view, it is the absence of a copula with a predicate of any category in paradigms like (1) from English and (3) from Sakha that tells us the truth about the nature of those categories—that they are all intrinsically one-place predicates. (2) in English and (9) in Sakha conceal this because of superficial morphological reasons. In contrast, on Baker’s view, it is the presence of the copula in (2) and (9) (and (7)) that tells the truth—that only verbs are intrinsically predicative. (1) and (3) conceal this by having a Pred that happens to be null and either no T or a clitic T that is not sensitive to structural factors when it attaches. It may be difficult to decide which interpretation of the facts about copular verbs is better in isolation; this may have to be decided by which fits better with a more comprehensive theory of the differences between verbs, adjectives and nouns—one that also accounts for patterns like (4) and (5).

Our goal in this paper is to add to this partial impasse by considering a less familiar pattern of facts. So far, we have pointed out similarities in the distribution of copular verbs between Sakha and much-discussed Turkish. Sakha, however, presents a new challenge for these views which Turkish does not. Sakha also has a series of constructions in which adjective and verb pattern together in not needing a copula, whereas nominal predicates do need a copula in these environments. One simple case in point is the immediate past tense in Sakha. Unlike the situation in both the present tense and the future tense, a copula must be present in (10c) but not in (10b).

- (10) a. Baaska ülelii-r-e.
Baaska work-AOR-3sP
‘Baaska was working.’
- b. Baaska bytaan-a.
Baaska slow-3sP
‘Baaska was slow.’
- c. Baaska byraas e-t-e *BUT not* #Baaska byraah-a.
Baaska doctor AUX-PAST-3sP Baaska doctor-3sP
‘Baaska was a doctor.’ (OK as ‘Baaska’s doctor’)

Similar patterns are found in relative clauses, in noun complement clauses, and in complement clauses selected by verbs and adjectives, as we show shortly.

The pattern of facts in (10) does not correspond directly to the underlying reality about which categories are intrinsic predicates according to either the standard view or Baker’s alternative view. Both need to attribute it to other factors in some way. At first it might seem that the standard theory is in a better position to do this, since it already depends on morphological stipulations as to what kind of root a given affix can attach to. Perhaps, then, the past-third-singular affix *-E* in (10) is simply one that can attach to either verb roots or adjective roots, but not to noun roots. In terms of the category-defining features of Chomsky (1970), we could say that this particular affix selects roots that are [+V]. Baker’s view does not have this flexibility, since he tries to derive properties like this from basic syntactic configurations like those in (6). In his terms, it is not surprising when A and N are a natural class opposed to V in some relevant paradigms

(as in (2) and (9)), but there is no convenient way to refer to A and V as a natural class. According to that theory, A and N should always constitute a natural class opposed to V when it comes to matters of theta-role assignment and predication.⁵ And yet the flexibility of the standard theory is also its weakness. Taking advantage of the same freedom that would allow it to account for the pattern in (10) would also allow it to account for unattested patterns like the one in (8). We seem, then, to have a false choice between a theory that is too restrictive and one that is not restrictive enough.

Vinokurova (2005) takes the pattern in (10) to be especially significant theoretically. She takes it as evidence for her position that adjectives and verbs are intrinsic predicates, and nouns are not. More specifically, she holds that nouns are zero-place, adjectives are one-place predicates, and verbs are two or more place predicates. Just as (1) and (3) are the most truthful paradigms for the standard view, and (2) and (9) are the most truthful for Baker’s view, so (10) is the most truthful for Vinokurova’s view. We thus now have a third contender to evaluate in this domain.

In this paper, we explore the new pattern in (10), to uncover its true significance for these matters. First we present more fully the range of contexts in which the verb-adjective versus noun pattern is observed in Sakha (section 2). We then show that Baker’s nonmorphological reasons for grouping A with N rather than V also hold for Sakha (section 3). Next we present a new proposal for why a copula is needed with noun predicates that has nothing to do with their intrinsic arity, but rather makes use of Richards (2006) Distinctness condition. Finally, we give a tentative extension of the Distinctness account to the simple past tense (section 5), and conclude (section 6). A narrow goal of our work is to defend Baker’s theory of categories from the empirical challenge that (10) represents. A broader goal is to extend Baker’s overall project of trying to do without stipulative features as a means of defining the differences between lexical categories, seeking instead to explain patterns in the data in terms of more fundamental considerations.

2. Verb and Adjective versus Noun in Sakha

Our first task, then, is to define the scope of the problem. We have already seen that, in the present tense, Sakha is like Turkish in that predicates of any category can be used without a copula. Agreement with the subject of predication in person and number attaches directly to the predicate, whether it is verbal (here a participle form), adjectival or nominal, as shown again in (11).

- | | | | | |
|------|----|--------|-----------------------|-----------|
| (11) | a. | En | aaq-a-qyn. | Verb |
| | | You.SG | read-AOR-2sS | |
| | | | ‘You read/will read.’ | |
| | b. | En | öjdööx-xün. | Adjective |
| | | you.SG | clever-2sS | |

⁵ For Baker, verbs and adjectives do constitute a natural class in opposition to nouns in other respects: in particular, only nouns are “referential” and hence able to enter into binding relationships of various kinds. However, that point of similarity between V and A as opposed to N is expected to have little or nothing to do with the distribution of the copula in predicative sentences.

‘You are clever.’

- c. En saaxymatcyk-kyn. Noun
you.SG chess.player-2sS
‘You are a chess player.’

In contrast, a copular/auxiliary verb is needed with nominal predicates only in the recent past ((10)), and copular verbs are needed with both nominal and adjectival predicates in the future ((9)) and the remote past.

In addition to the recent past, Vinokurova (2005) identifies two other environments where verb and adjective contrast with noun in regards to the copula. The same categorial asymmetry is seen in embedded complement clauses—the arguments of verbs like ‘know’, ‘hear’, ‘hope’, and many others. Here possessive-like agreement with the embedded subject can attach directly to the predicate of the embedded clause if the predicate is a verb (participle) or an adjective, but not if it is a noun. If the predicate is a noun, the verb ‘be’ must be included, and it bears the agreement:

- (12) a. En (xohoon) aaq-ar-yŋ bil-l-er.
You.SG poem read-AOR-2sP know-PASS-AOR.3sS
‘It is known that you read (poems).’
- b. En öjdööq-üŋ bihiexe bil-l-er.
you.SG clever-2sP we.DAT know-PASS-AOR.3sS
‘It is known to us that you are clever.’
- c. ??En saaxymatcyt-yŋ bihiexe bil-l-er.
you.SG chess.player-2sP we.DAT know-PASS-AOR.3sS
‘It is known to us that you are a chess player.’
- d. En saaxymatcyt buol-ar-yŋ bihiexe bil-l-er.
you.SG chess.player be-AOR-2sP we.DAT know-PASS-AOR.3sS
‘It is known to us that you are a chess player.’

The third environment where Vinokurova finds this pattern is relative clauses. If a subject has been extracted from a relative clause in Sakha, the clause can consist of simply a participial form of the verb, together with its complements and modifiers, all appearing before the head noun; there is no Tense node, agreement, complementizer or relative pronoun.⁶ (13b) shows that a relative clause can also consist of just a bare adjective and its complements (if any). However, (13c) shows that a relative clause

⁶ Relative clauses in which something other than the highest subject are are similar, except possessive agreement must be present on the head or the relative clause agreeing with and assigning (genitive) case to the subject of the relative clause (see Kornfilt to appear for some discussion). The distribution of the copular verb is the same in nonsubject relative clauses as in subject relative clauses. However, since AP and NP predicates usually do not have complements that can be extracted, we concentrate on subject relatives here, as the simplest kind and the kind most relevant to the category differences under study.

cannot consist of just a bare noun and its complements (if any). Rather, a participial form of ‘be’ is required.

- (13) a. Sargy-ga kömölöh-ör kyys (verbal predicate) (NV:258)
 Sargy-DAT help-AOR girl
 ‘the girl who helps Sargy’
- b. Sargy-ga interiehinej kyys (adjectival predicate) (NV:258)
 Sargy-DAT interesting girl
 ‘the girl who is interesting to Sargy’
- c. *Sargy-ga sirdjit kyys (nominal predicate) (NV:258)
 Sargy-DAT guide girl
 ‘the girl who is a guide for Sargy’
- d. Sargy-ga sirdjit buol-ar kyys (nominal predicate) (NV:258)
 Sargy-DAT guide be-AOR girl
 ‘the girl who is a guide for Sargy’

To these three contexts where Vinokurova (2005) noticed a verb-adjective versus noun contrast, we can add a fourth.⁷ As in English, some nouns in Sakha can take clausal complements, including *sonun* ‘news’, *surax* ‘rumor’, and a few others. When the predicate of the complement clause is a verbal participle, it can be expressed in one of two ways.⁸ The participial verb can be uninflected, agreement with the subject appearing on complement-taking noun ((14a)). Alternatively, the participle itself can agree with its subject (using possessive type agreement); in that case, the head noun bears an invariant third person singular possessive suffix, presumably agreeing with the participial clause as a whole ((15a)). If the predicate is an adjective, exactly the same two options are found, shown in (14b) and (15b). However, if the predicate is a noun, the analogous forms are ungrammatical ((14c), (15c)). Rather, a participial form of ‘be’ must be used in both constructions ((14d), (15d)).

- (14) a. En kel-bit suraq-yŋ (noun complement, type 1)
 you come-PTPL rumor-2sP
 ‘a rumor that you came’
- b. En djolloox suraq-yŋ
 you happy rumor-2sP
 ‘the rumor that you are happy’

⁷ Vinokurova 2005 also gives two other arguments for her view of adjectives: the distribution of impersonal subjects, and the use of the copula to create generic readings for sentences that would not otherwise have them. These arguments have a rather different character from the ones reviewed here, and we do not discuss them in this paper.

⁸ It is also possible for the complement of a noun like ‘rumor’ to be a full finite CP; see below for some discussion. In that case, the distribution of the copula depends on the tense of the clause, in exactly the same way as in matrix clauses.

- c. *Masha professor suraq-a
Masha professor rumor-3sP
'the rumor that Masha is a professor'
- d. Masha professor buol-ar suraq-a
Masha professor be-AOR rumor-3sP
'the rumor that Masha is a professor'
- (15) a. En kel-bit-iŋ suraq-a (noun complement, type 2)
you come-PTPL-2sP rumor-3sP
'a rumor that you came'
- b. en djollooq-uŋ suraq-a
you happy-2sP rumor-3sP
'the rumor that you are happy'
- c. *en ojuun-uŋ suraq-a
you shaman-2sP rumor-3sP
'the rumor that you are a shaman'
- d. en ojuun buol-ar-yŋ suraq-a
you shaman be-AOR-2sP rumor-3sP
'the rumor that you are a shaman'

In conclusion, we see that there is a cluster of somewhat disparate-looking environments in which adjectives pattern with verbs rather than with nouns when it comes to the use of a copular verb. Therefore, this is not just an isolated morphological quirk of one morpheme or one construction in Sakha, but a recurring pattern in the language.

As mentioned in section 1, Vinokurova (2005) gives this pattern a theoretical interpretation, in which it supports a rather different theory of the lexical category distinctions from that of Baker (2003). She claims that both adjectives and verbs are intrinsically predicates (at least in Sakha, although she implies that this might be universal), and nouns are the only lexical category that is not intrinsically predicative. More specifically, she defines the three categories as follows: verbs are predicates that intrinsically take two or more arguments, adjectives are predicates that take exactly one argument, and nouns are not intrinsically predicative at all. She thus draws a three-way distinction among the lexical categories purely in terms of argument structure, whereas Baker draws only a two-way distinction in terms of argument structure (verbs are intrinsically predicates; nouns and adjectives are not) and uses an orthogonal distinction (that of being a sortal, having a referential index) to draw the distinction between nouns and adjectives. And it cannot be denied that these patterns in Sakha make Vinokurova's view look very plausible for this language, perhaps for all languages.

3. Noninflectional differences between verbs and adjectives

One simple solution to the issue raised by (10)-(15) above could be to say that Sakha does not have a distinct class of adjectives. What we call adjectives are really a semantically coherent subclass of verbs in Sakha—specifically, verbs that are both aspectually stative and logically monadic. This is reasonable a priori, and clearly true in some languages (e.g. Mohawk) (see also Dixon 1982 and Stassen 1997 for general typological remarks, among others). If that were true for Sakha, then the puzzle posed by the data in the previous section would disappear. Sakha would simply have the usual distinction between verbal predicates and nonverbal predicates, nonverbal predicates needing a copula (sometimes overt) and verbal predicates not needing one. The only difference would be a lexical one, as to what category certain predicates belong to. For example, we would say that the predicate ‘happy’ happens to be of category adjective in English, but of category verb in Sakha, and similarly for ‘clever’, ‘interesting’, and ‘slow’.

Plausible and uncontroversial as this view is for Mohawk and many other languages, it seems a priori unlikely in Sakha, given that there are some straightforward inflectional differences between uncontroversial verbs and putative “adjectives”. For example, all true verbs in Sakha—even stative verbs—require some sort of tense-like suffix, either a true tense marker like *-dI*, or a participle ending like *-a(r)-* ‘aorist’. Uncontroversial verbs cannot be used as bare roots, nor can they be used with only a subject agreement marker attached. This is illustrated in (16).

- (16) a. En utat-ty-ŋ. (*utak-kyn)
 you thirst-PAST-2sP thirst-2sS
 ‘You are thirsty.’ (or ‘You have become thirsty.’)
- b. En balyk söbül-üü-gün (*söbülee-qin)
 you fish like-AOR-2sS like-2sS
 ‘You like fish.’

In contrast, “adjectival” roots can stand alone, with no (overt) tense-aspect marker, having only a subject agreement marker, as in examples like *En öjdöök-xün* (you clever-2sS; see (3)). Similarly, this view would not have any easy way to account for the fact that tense suffixes like the future *-yAk* can attach to true verb roots but not to “adjectives” like ‘happy’ or ‘clever’ (see (9)). Hence, “adjectives” are not as similar to verbs in terms of inflectional tense-aspect morphology in Sakha as they are in languages that uncontroversially lack a class of adjectives distinct from the class of verbs.^{9 10}

⁹ Typically “adjectives” in languages like Mohawk can only take a proper subset of the tense-aspect morphemes that combine with other verbs. These restrictions can presumably be explained semantically: certain aspect markers are semantically incompatible with the intrinsic stativity of these predicates, much as stative predicates do not naturally appear in the progressive in English (??*Chris is thirsting*; ??*Chris is liking fish*). These semantic restrictions might explain why some tense-aspect affixes cannot go on “adjectives” in Sakha, but are unlikely to explain why no tense or aspect morpheme (other than null present) can go on them. For example, there are no obvious aspectual restrictions on the future in Sakha; it can attach perfectly well to stative verbs (*En balyk söbül-üöq-ün* ‘you fish like-FUT-2sP’).

¹⁰ The same issue arises with derivational morphology as with inflectional morphology. Many languages have a causative affix that attaches to verbs but not to other categories. In languages like Mohawk, where ‘be big’ is a verb, the same causative morpheme

The category difference between adjectives and verbs in Sakha can be confirmed by certain syntactic tests, namely by unaccusativity diagnostics. Since early crosslinguistic work by Relational Grammarians, it has been known that, in languages where “adjectives” are really stative verbs, they are more specifically unaccusative verbs. Hence, predicates like ‘be-good’ or ‘be-big’ behave syntactically like verbs such as ‘fall’ or ‘die’ or ‘break’, not with unergative verbs like ‘work’ or ‘laugh’. In contrast, languages in which adjectives are a distinct class, most canonical adjectives behave like unergative predicates. For example, we mentioned in section 1 that some verbs—specifically unaccusative verbs—allow their sole argument to be incorporated, in Mohawk ((17a)) and Wichita ((5a)). In contrast, unergative verbs do not allow this ((17b)).

- (17) a. Wa’-ka-wír-Λ’-ne’. (unaccusative verb)
FACT-NsS-baby-fall-PUNC
 ‘The baby fell.’
- b. *Wa’-t-ka-wir-ahsΛ’-’tho-’. (unergative verb)
FACT-DUP-NsS-baby-cry-PUNC
 ‘The baby cried.’

Inflectional evidence shows that the word ‘be-big’ is a stative verb in Mohawk, whereas it is a true adjective in Wichita. Thus, subject agreement, stative aspect marker, and past tense all attach directly to the root meaning ‘be big’ in Mohawk, whereas tense and agreement must attach to a copular verb distinct from the word *tac* ‘fat’ in Wichita.

- (18) a. ra-kowan-v-hne’ ne Sak. \

attaches to such words. In contrast, in languages like Chichewa, where ‘big’ is an adjective, the verbal causative morpheme does not attach to it. (See Baker 2003:sec. 2.6 for a deduction of this common pattern from the syntactic difference between verbs and adjectives. Adjectives can be causativized in some languages too, but it typically requires a different morpheme; since the thematic properties of adjectives are significantly different from those of verbs, the thematic properties of the causative morpheme must also be different in a compensating way in order to make a coherent causative.) Like Mohawk and Chichewa, Sakha has a morphological causative *-t/-tar*, which attaches productively to verbs or many kinds, including stative verbs:

- (i) Muzyka Masha-ny syla-t-ta.
 Music Masha-ACC be.tired-CAUS-PAST.3sP
 ‘The music made Masha tired.’

But it cannot attach to words like ‘happy’, suggesting that they are adjectives, not verbs:

- (ii) *Muzyka Masha-ny djolloox-tor-do.
 Music Masha-ACC happy-CAUS-PAST.3sP
 ‘The music made Masha happy.’

MsS-be.big-STAT-PAST NE Sak (Mohawk)
 ‘Sak used to be big.’

- b. tac ti-ʔi né:rhirʔa (Wichita, Rood 1976:13)
 fat T/AGR-be buffalo
 ‘The buffalo is fat.’

This goes along with the fact that *owanv* ‘be-big’ is like an unaccusative verb in Mohawk, in allowing its subject to incorporate. In contrast, *tac* ‘fat’ is a true adjective in Wichita, and it does not allow its argument to incorporate:

- (19) a. ka-nuhs-owan-v thikv. (Mohawk).
 NsS-house-be.big-STAT that
 ‘That house is big, That is a big house.’
- b. *né:rhirʔas-tac ti-ʔi. (Wichita; Rood 1976:13)
 buffalo-fat T/AGR-be
 ‘The buffalo is fat.’

See Baker 2003:ch.2 for much discussion of unaccusativity diagnostics like this one, and how they relate to the verb-adjective distinction in a variety of languages.

With this as background, then, we can see what unaccusativity diagnostics tell us about the categorial status of words like ‘clever’ and ‘happy’ in Sakha. We know of two unaccusativity diagnostics in the language that can be applied. The first is somewhat similar to noun incorporation in Mohawk. Like Turkish (Enç 1991), direct objects in Sakha can be “incorporated” into the adjacent verb. When this happens, they are not marked for number or case, they have a nonspecific indefinite interpretation, they must be strictly adjacency to the verb, and they are pronounced under the same intonational contour as the verb. An example is:

- (20) Erel kinige (*türgennik) atyylas-ta. (Vinokurova 2005:322)
 Erel book quickly buy-PAST.3sP
 ‘Erel bought a book/books (quickly).’

This sort of (pseudo) incorporation is also possible for the subjects of unaccusative verbs, although it is harder to recognize because nominative case marking in Sakha is not overtly marked morphologically. If, however, the argument of an unaccusative verb is nonspecific, adjacent to the verb, and not marked for number inside a relative clause, one can omit agreement with the argument on the head noun of the relative clause, whereas agreement on the head noun with the subject is otherwise obligatory in relative clauses where something other than the subject has been extracted. This is shown in (21).

- (21) 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’

In contrast, a similar structure is out when the verb is unergative; here agreement on the head noun with the subject of the relative clause is required, even if the subject is nonspecific, unaffixed, and adjacent to the verb:

- (22) *yt ür-er sir/ kem (OK with sir-e/ kem-e)
 dog bark-AOR place/ time place-3sP/time-3sP
 ‘a place where/a time when dogs bark’

Normally, D on the head noun is required to assign (genitive) case to the subject of the participial verb, because there is no Tense node in the relative clause to assign the subject nominative case (see Kornfilt to appear, Baker and Vinokurova 2008). This accounts for (22). But in (21) the subject has incorporated into the verb, and hence does not need to be assigned case. As in Mohawk, this sort of incorporation is possible only if the verb is unaccusative.

Now we can apply this as a test to predicates like ‘good’ and ‘happy’, to see if they are verbs. If they are verbs, they should be unaccusative verbs. If they are unaccusative verbs, then they should allow their subjects to escape the case filter by (pseudo)-incorporating, making agreement on the head noun optional. However, they cannot incorporate in this way, as shown in (23).

- (23) a. oton ücügej kem-*(e)
 fruit good time-(3sP)
 ‘a time when fruit is good’
- b. oqo djolloox sir-*(e)
 child happy place-(3sP)
 ‘a place where children are happy’

So ‘adjectives’ in Sakha pattern with true adjectives in Wichita, rather than the comparable stative verbs in Mohawk. That suggests that they are adjectives in Sakha too. Note also that the subject of a nominal predicate also cannot undergo (pseudo)-incorporation, as expected under Baker’s (2003) assumptions:

- (24) a. byraas djaxtar buol-ar sir-*(e)
 doctor woman be-AOR place-(3sP)
 ‘a place where doctors become women’
- b. Oqo sallaat buol-ar sir-e/ kem-e
 child soldier be-AOR place-(3sP)/ time-(3sP)
 ‘a place/time where a child becomes a soldier’

This is comparable to nouns not incorporating into nouns in Mohawk (see (5c), Baker 2003). Thus, adjectives behave like nouns in Sakha, rather than like the semantically most comparable class of verbs. That fits with Baker's view that adjectives, like nouns, are not intrinsically predicative.¹¹

The second unaccusativity diagnostic that we know of in Sakha involves possessor raising. If the argument of an unaccusative verb stays inside VP, its possessor can move out of the possessed DP. As a result, it can be separated from the possessed noun by an adverb that modifies the verb. However, this sort of possessor raising is only possible with unaccusative verbs like 'die' or 'break' or 'become-sick', not with unergative verbs like 'bark' or 'cry'.

- (25) a. Masha aaspyt tüün yt-a öl-lö/ *ür-de
 Masha last night dog-3sP die-PAST.3sP/ bark-PAST.3sP
 'Last night Masha's dog died/*barked on her.'
- b. Masha aaspyt tüün oqo-to yaryj-da/ *ytaa-ta
 Masha last night child-3sP fall.sick-PAST.3sP/ cry-PAST.3sP
 Last night Masha's child fell sick/*cried'

We do not profess to have a fully developed analysis of this contrast, as to just what syntactic condition is violated in the bad sentences but not the good sentences. However, similar conditions on "possessor raising" are known from other languages, including Hebrew (Borer and Grodzinsky 1986, Baker 2003). We can tentatively attribute it to something like the subject condition/condition on extraction domains: one can move an NP X out of a larger NP Y only if the larger phrase Y is the complement of some lexical head. That is the case for unaccusative verbs but not for unergative ones, by hypothesis.

Now we can apply this diagnostic to putative adjectives, to see if they act like unaccusative verbs or not. In fact, possessor raising is not possible from the sole

¹¹ Cinque 1990 shows that, while most adjectives contrast with comparable verbs in behaving like unergative predicates in Italian, there is a small semantically-coherent class of adjectives that does behave like unaccusative predicates. We might expect this to be so in Sakha as well, in which case these particular adjectives would allow pseudo-incorporation. That is true: the two we know of that allow it are *naada* 'necessary' and *suox* 'nonexistent'.

- (i) Massyyna naada kem(-e)/sir(-e)
 Car need time-(3sP)/place-(3sP)
 'A time/place when a car is needed'
- Oqo suox kem(-e)/sir(-e)
 child not-exist time-(3sP)/place-(3sP)
 'A time when/place where children do not exist'

So it is not quite right to say that adjectives are always unergative predicates rather than unaccusative ones; the more accurate statement is that the dividing line between unaccusative and unergative falls in a different place for adjectives than for verbs. In Sakha, it falls where you would expect for a language in which adjectives are a distinct category from verbs (like Italian, not like Mohawk).

argument of a canonical adjective, such as ‘happy’. (26) gives particularly clear minimal pair, comparing ‘be happy’ to ‘become sick’.

- (26) a. Masha kuorak-ka aqa-ta yaryj-da
 Masha town-DAT father-3sP fall.sick-PAST.3sS
 ‘Masha’s father fell sick in town.’
- b. *Masha kuorak-ka aqa-ta djolloox.
 Masha town-DAT father-3sP happy
 ‘Masha’s father is happy in town.’

This is expected on Baker’s account, if ‘happy’ is a true adjective, hence not intrinsically predicative. That means that the subject ‘Masha’s father’ is not generated inside AP, but rather in the Spec, PredP position (see (6b)). As such, ‘Masha’s father’ is not the complement of a lexical head, and ‘Masha’ cannot raise out of it—a kind of subject condition violation (whatever principle this ultimately reduces to). We also note that possessor raising from the subject of a nominal predicate is also ruled out, as expected:

- (27) *Misha Moskva-qa aqa-ta administrator
 Misha Moscow-DAT father-3sP administrator
 ‘Misha’s father is an administrator in Moscow.’

So adjectives pattern with nouns rather than with (the relevant subclass of) verbs for this syntactic test as well. We thus have converging evidence that adjectives are a distinct category from verbs. More than that, adjectives pattern with nouns rather than with verbs in ways that Baker 2003 explained by saying that adjectives and nouns have the same intrinsic argument structures—neither is inherently a predicate. If Vinokurova (2005) were right about adjectives (but not nouns) being one-place predicates in Sakha, we would expect them to behave like unaccusative verbs, which they do not.

4. Distinctness and the distribution of copular verbs

If this is true, then we need another account of the facts that motivated Vinokurova’s proposal in the first place. We need to say why, in several environments, nominal predicates require a copular verb but adjectival ones do not. If both need help in the form of a Pred head in order to become predicates, why is this manifested overtly for nouns but not adjectives in these particular contexts?

4.1 Relative clauses

In order to get a handle on this, let us consider first the fact that nominal predicates need a copula in relative clauses, but verbal participles and adjectives do not, as shown in (13). The other contrasts could be amenable to superficial morphological solutions, of the form ‘affix X can attach to verb roots and adjective roots but not to noun roots’. One could debate how satisfying such solutions would be—whether they do anything more than stipulate the facts, whether verbs and adjectives really constitute a meaningful natural

class for morphology, and so on. But this path is at least open for consideration. What is interesting about relative clause constructions is that there is no sign of an affix attaching to the participial verb or the adjectival predicate. If there is no affix to attach, then it is at best unnatural to say that a copula is needed with the noun in order to bear the affix. So it seems that a syntactic solution to this problem is called for, rather than a morphological solution.¹² Let us consider what that solution might be for the case of relative clauses, and then see how far it naturally extends.

So what sort of syntactic condition might rule out a bare nominal predicate from functioning as a relative clause, while allowing verbal and adjectival predicates to do so? We suggest that this pattern calls to mind the Distinctness condition of Richards 2006. Richards documents an extensive and diverse range of situations in a variety of languages in which a phrase of category X cannot occur in the same domain as another expression of category X; rather the combination must be “repaired” by either deleting or inserting additional structure to avoid having two Xs in the same local domain. Richards implements his observation as a constraint on linearization. He proposes that if the syntax feeds into PF an ordering statement of the form $\langle X, X \rangle$, where one instance of X is said to have to precede a second instance of X, PF is unable to distinguish the two Xs, becomes confused, and crashes.

(28) Distinctness: If a linearization statement $\langle X, X \rangle$ is generated, the derivation crashes.

Richards makes it clear that X can stand for two instances of the same category, or for two categories that bear some of the same features; the exact details of how much similarity is tolerated vary somewhat from language to language. Since Richards adopts the currently-standard view that spell-out and hence linearization happens one phase at a time, this amounts to the condition that there cannot be two distinct expressions of category X within the same spell-out domain. Since our goal here is not to reduce the Distinctness condition to first principles, but to apply it to a new body of data, we build these assumptions into the statement of Distinctness explicitly, giving us the “working version” in (29).¹³

(29) Distinctness: A structure will be filtered out at PF if it contains two expressions, X and Y, such that X asymmetrically c-commands Y, X and Y are contained in

¹² Of course there *could* be an affix that attaches to verb and adjective but not noun, even though it is phonologically null. An abstract morphological solution of this sort cannot be entirely ruled out, but it is reasonable to use it only as an analysis of last resort.

¹³ Richards crucially assumes that the Distinctness condition only applies to functional categories, not to lexical categories. Hence, Distinctness might rule out having two Ds in the same phase, but does not rule out having two Ns in the same phase. We understand Distinctness as applying in principle to lexical categories as well as functional categories, so that one can capture contrasts like (30) and (31) (as well as many others in this paper) even in languages like Sakha which (we believe) do not have nonpossessive determiners. It may be that there are some languages in which determiners create Distinctness violations but bare nouns do not (e.g. Hebrew, in order to capture the distribution of determiners in construct state constructions on Richards’s analysis). We assume that such phenomena can be captured by adjustments of which features Z Distinctness is sensitive to in a particular language. For example, Distinctness in Hebrew might be violated when two categories in the same phase have some feature X that is borne by determiners but not nouns in Hebrew.

the same spell-out domain, and X and Y both have the same category/feature Z (Z parameterized).

Of the many instances of distinctness Richards discusses, some involve having two noun projections in the same local domain. For example, there is the well-known fact, traditionally ascribed to case theory, that a noun (simple or derived) cannot take an NP/DP as its complement in English and many other languages.

- (30) a. *the father [the bride]
b. *the destruction [the city]

These violate (29) with X=*father/destruction*, Y=*bride/city*, and Z=N (or D, or some subfeature of N). The violations are avoided by including a preposition (structurally) between the complement noun and the head noun, as in (31).

- (31) a. the father [of the bride]
b. the destruction [of the city]

Richards assumes that PPs are phases; hence, when the P *of* is included, *destruction* and *city* are no longer contained in the same phase. One is spelled out before the other, and their similarity in category does not lead to confusion and crash at PF.

Even closer to the cases that concern us, Richards claims that the Distinctness condition applies to nonfinite relative clauses in English and all relative clauses in Romance languages, accounting for contrasts like the following:

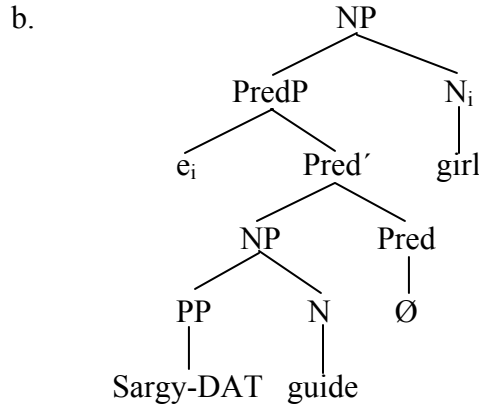
- (32) a. a person with whom to dance
b. *a person whom to admire
c. a person – to admire

The ungrammatical (32b) has an NP *whom* in Spec, CP of the infinitival clause. This relative clause is merged with the nominal *person*, such that *person* asymmetrically c-commands *whom*, and the two are of the same category (NP or DP). Finally, since *whom* is at the edge of the CP phase (the relative clause), it is not spelled out with the rest of this phase, but survives to be linearized with the higher phase. Therefore, (32b) violates the Distinctness condition, much as (30) does. In contrast, (32c) is possible because the relative operator is phonologically null; as such, it is invisible at PF, and issues of how it is ordered with respect to the head of the relative do not arise. Finally, (32a) is grammatical because the NP *whom* is contained inside a PP headed by *with*. Since PP is a phase (and *whom* is not at its edge), *whom* is part of a different spell out domain from *person* in this example, and there is no violation. Hence, the contrast between (32a) and (32b) is explained in the same way as the similar-looking contrast between (30) and (31) (see also Pesetsky and Torrego 2006 for a related way of capturing the same parallelism—an advance over classical case theory, which applied only to (30)/(31)).

Now there is a clear similarity between these cases analyzed by Richards and the examples we are trying to find an explanation for. In particular, the ungrammatical case

of a “bare” nominal predication functioning as a relative clause such as (33a) has have the structure in (33b).

- (33) a. *Sargy-ga sirdjit kyys (nominal predicate, =(13c))
 Sargy-DAT guide girl
 ‘the girl who is a guide for Sargy’



In this structure, it is clear that ‘girl’ asymmetrically c-commands ‘guide’, and has the same category features as it. The main question, then, is whether the NP predicate is in the same spell-out domain as the head of the relative clause or not.¹⁴ It is plausible to say

¹⁴ We intend to leave open exactly what might be the relationship between the head of the relative clause and the subject gap in Sakha. One possibility is a head-raising account, in which the nominal headed by ‘girl’ itself raises from the Spec, PredP position, and directly binds a trace/copy there. Another possibility is that there is an empty operator that moved from Spec, PredP to adjoin to PredP, making PredP into a predicate that merges with an NP headed by ‘girl’. Presumably how these details are developed is independent of the question of whether there is a Distinctness violation in (33b) or not.

One question that arises, however, is whether the subject of predication itself creates a distinctness violation with the nominal predicate. We claim that the answer is yes: this explains why the subject of a nominal predication cannot receive a low, existential reading (in English or Sakha), whereas the subject of (some) adjectival predications can. (see Diesing 1992). This holds true even when a noun is arguably stage level, as in (i).

- (i) a. Oonnjuu-ga oqo-lor naada-lar
 play-DAT child-PL need-3pS
 ‘(Some) children are needed in the play.’
- b. #Bu samolek-ka oqo-lor passazhir-dar
 This airplane-DAT child-PL passenger-3pS
 Not: ‘There are some children who are passengers in this plane.’
 Only OK with a generic reading: ‘In this plane children are the passengers.’

Thus, NP must raise out of the Spec, PredP position in English and Sakha, on pains of violating Distinctness. (Note that undergoing movement is another “strategy” for avoiding Distinctness violations in Richards’s work.) The open question, then, is where exactly does the subject of nominal predicate raise to,

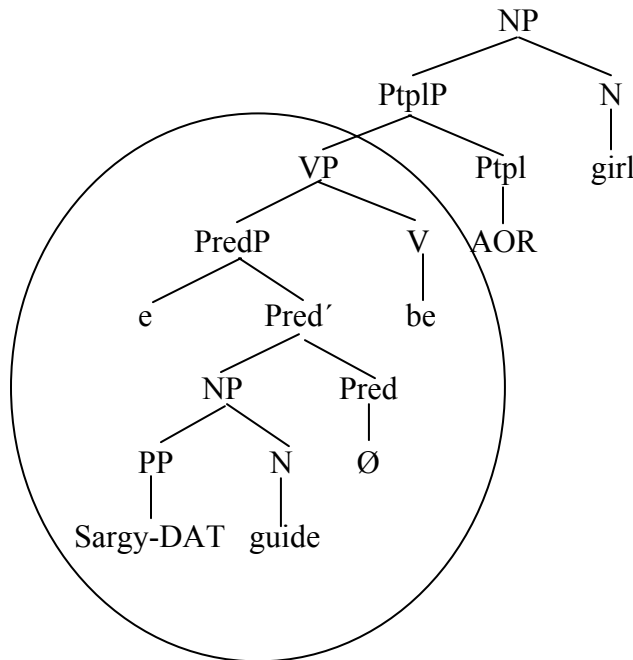
that it is: clearly there is no overt verb, or adposition, or complementizer that heads a projection that contains one and not the other. Here it is presumably important that Sakha in general has reduced, participial relative clauses, not full finite CP relative clauses (cf. Krause xx, others); such participial relative clauses are plausibly not phases. Indeed the only head other than the nouns that is certainly present here is Pred, and that is presumably not a phase head. Assuming this, then the representation in (33b) violates the Distinctness condition, and is ruled out.

Now compare this with the grammatical version of (33a), in which a participial form of the copula ‘be’ is included. Its structure will be overall rather similar to (33b), but with projections of at least two extra heads, V and the participle morpheme it bears.

- (34) a. Sargy-ga sirdjit buol-ar kyys (nominal predicate (=13d))
 Sargy-DAT guide be-AOR girl
 ‘the girl who is a guide for Sargy’

such that it is in a different phase from the NP predicate itself, even if no auxiliary is projected—perhaps some position on the left periphery, outside the spell-out domain associated with C? We leave this open.

b.



Naturally, ‘girl’ still asymmetrically c-commands ‘guide’ in this version, and they still have the same category. But it is plausible to say that there is now a phase boundary that contains ‘guide’ but not ‘girl’, such that the two are in different spell-out domains. In particular, Baker and Vinokurova (2009) argue that all VPs in Sakha are phases for purposes of case assignment. Carrying that assumption over the VP headed by ‘be’ in (34b), there will be no Distinctness violation in this structure. Just as including additional PP structure avoids a distinctness violation between two NPs in the English examples in (31) and (32), so including extra VP structure avoids one here.

Suppose that the predicate inside the relative clause is an AP rather than an NP. Then no copular verb is required. This is now expected: a structure like ‘Sargy-DAT interesting girl’ would have exactly the same structure as (33b), but the complement of Pred would be AP, not NP. This AP does not have the same category features as the head of the relative clause ‘girl’. Hence, no Distinctness violation arises here, regardless of whether the predicate and the head are in the same spell-out domain or not. No copular verb is needed as a ‘repair’, and general economy considerations imply that none will be used.

This analysis also extends immediately to the noun complement constructions illustrated in (14), in which a clausal constituent is merged with a noun like ‘rumor’ or ‘news’. Such constructions are different from relative clauses in various syntactic and semantic respects. However, they are like relative clauses in that a reduced clause (less than a CP) merges with a nominal head. When the reduced clause contains only a nominal predication, a Distinctness violation results between the nominal head and the nominal predication. If the predication is not nominal, or if the nominal predication is hidden inside a VP phase defined by a copular verb, then there is no Distinctness violation. The structures are identical to those in (33) and (34), except that they have ‘rumor’ in the place of ‘girl’, and the subject of the predicate is a distinct overt NP, not a gap that is somehow linked to the head of the nominal as a whole.

Although full CPs with a finite complementizer (*dien*) cannot function as relative clauses in Sakha, they can function as complements to nouns like ‘rumor’. Hence, (35b) is possible as an alternative to (35a) (=14a) from above).

- (35) a. En kel-bit suraq-yn (noun complement, type 1)
 you come-PTPL rumor-2sP
 ‘a rumor that you came’
- b. En kel-li-ŋ dien surax (noun complement, type 3)
 you come-PAST-2pP that rumor
 ‘a rumor that you came’

The finite CP with an overt complementizer in (35b) is a phrase in its own right. We therefore predict that if a sentence like (35b) had a nominal predicate rather than a verbal one, no auxiliary ‘be’ would be needed. The nominal predicate would be inside the spell-out domain defined by the phase head C and the head noun ‘rumor’ would not be, so there would be no Distinctness violation. That is correct: the equivalent of (35a) with a nominal predicate needs a copula, but the equivalent of (35b) does not need one.

- (36) a. ehigi professor-dar-gyt dien surax
 You.PL professor-PL-2pS that rumor
 ‘the rumor that you are professors’
- b. ehigi professor-dar *(buol-ar) surax-xyt
 You.PL professor-PL *(be-AOR) rumor-2pP
 ‘the rumor that you are professors’

Intuitively put, some relevant head must intervene between ‘rumor’ and ‘professor’ to separate the two members of the same category, but either a V (‘be’) or a C (‘that’) is equal to the task, these both being phase heads. This confirms that we are on the right track in using Richards’s Distinctness condition, in which phase boundaries are crucial.

4.2 Complement clauses

Consider next the fact that a copula is needed when a nominal predication functions as the direct argument of a verb, as shown in (37). A second paradigm is given here:

- (37) a. En (xohoon) aaq-ar-g-yn bil-e-bit.
 You.SG poem read-AOR-2sP-ACC know-AOR-1pS
 ‘We know that you read (poems).’
- b. En yraas-k-yn bil-e-bit.
 you clean-2sP-ACC know-AOR-1pS
 ‘We know that you are clean.’
- c. ??En byraas-k-yn bil-e-bit

you doctor-2sP-ACC know-AOR-1pS
 ‘We know that you are a doctor.’

- d. En byraas buol-ar-g-yn bil-e-bit
 you doctor be-AOR-2sP-ACC know-AOR-1pS
 ‘We know that you are a doctor.’

At first glance, it seems like the Distinctness story is unlikely to generalize to explain the deviance of (37c). Here a nominal predication is merged together with a verb, rather than with a noun. Since verbs and nouns are clearly different categories, it seems like Distinctness could not apply to (37c), and some other factor must force the use of the copula here.

However, there are excellent reasons to say that the examples in (37) have a bit more structure than meets the eye. The participial phrases in (37) have somewhat different properties from the participial phrases found in relative clauses. In particular, the participle must show agreement with the subject of the participial clause, whereas participles in relative clauses cannot show any agreement at all. Moreover, the agreement in (37) is possessive-type agreement, like the agreement that nouns have with their possessors. That suggests that the clause in (37a) is “nominalized” in some sense. Indeed, there is plenty of additional evidence that this is the case. For example, note that the clause in (37a) is (and must be) marked for accusative case, just as an NP object of a verb must be in Sakha. When the complement of this type of verb is a pure CP, headed by the (verbal) complementizer *dien*, no such accusative case marking appears.¹⁵ Thus, one finds contrasts like the following:

- (38) a. Sardaana beqehee [bügün Aisen kel-er dien] ihit-te.
 Sardaana yesterday today Aisen come-AOR that hear-PAST.3sP
 ‘Sardaana heard yesterday that Aisen is coming today’
- b. Min [ehigi бүгүн kyaj-byk-kyt-yn] ihit-ti-m.
 I you today win-PAST-2pP-ACC hear-PAST-1sP
 ‘I hear that you won today.’ (more lit. ‘I hear of your winning today.’)

This shows that participial complements are “more nominal” than CPs, in that they must be case-marked like NPs. Another consideration that confirms this is that participial clauses are like NPs in that they trigger dative case on another NP in the same VP, in for example, a causative construction, whereas *dien* clauses do not (see Baker and Vinokurova 2009 for details on dative case assignment in Sakha).

- (39) a. Sargy Keskil-i [Aisen kel-ie dien] eren-ner-de.
 Sargy Keskil-ACC Aisen come-FUT.3sP that hope-CAUS-PAST.3sP
 ‘Sargy promised (made hope) Keskil that Aisen will come.’ (NV:xx)

¹⁵ We say that *dien* is a verbal complementizer, because it is historically a nonfinite form of the verb *die* ‘to say’, as is the case in many non-Indo-European languages. See Vinokurova 2005, to appear for some discussion.

- b. Sargy Keskil-ge/*Keskil-i [Aisen kel-er-in] eren-ner-de.
 Sargy Keskil-DAT/*-ACC Aisen come-AOR-3sP.ACC hope-CAUS-3sP
 ‘Sargy promised (made hope) Keskil that Aisen would come.’

Participial clauses also have exactly the same external distribution as NPs/DPs do in Sakha, whereas CPs headed by *dien* do not. For example, a participial clause can function as a syntactic subject, whereas a CP cannot:

- (40) a. [Ucuutal oqo-nu kyrbaa-byt-a] bihigi-ni sohup-put-a.
 teacher child-ACC beat-PTPL-3sP we-ACC surprise-PTPL-3sP
 ‘That the teacher beat the child surprised us.’
- b. *[Saaska Baaska-ny üöx-te dien] bihigi-ni sohup-put-a
 Saaska Baaska-ACC scold-PAST.3sS that we-ACC surprise-PTPL-3sP
 ‘That Saaska scolded Baaska surprised us.’

Similarly, participial clauses can be objects of postpositions like *kytta* ‘with’ and *dyl* ‘until’ in Sakha, whereas CPs headed by *dien* cannot. Theoretical considerations also suggest that some kind of nominalization is at work in (37). According to Baker (2003), a category must be “nominal” in at least the sense of having a referential index in order to receive a thematic role from a verb—hence the ubiquity of NP/DP arguments, as opposed to the rarity of AP or VP arguments. In contrast, relative clauses are adjuncts that do not receive theta roles, so it is expected that they would not be nominalized, but would remain as verbal as possible (cf. the Noun Licensing Condition of Baker 2003).

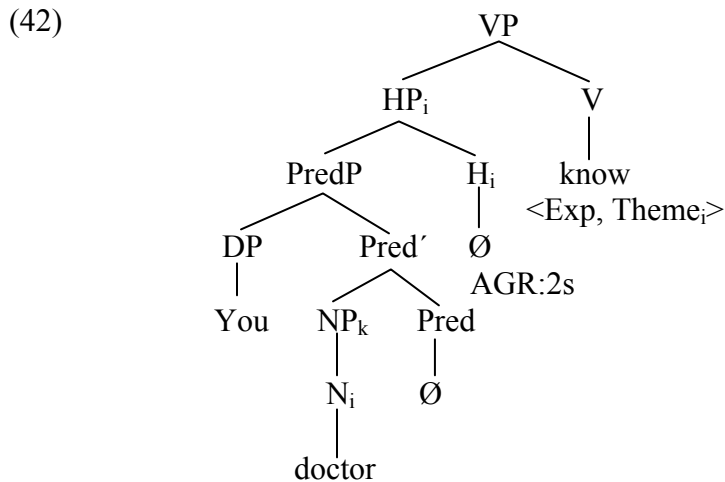
We could conceivably say that the Participle morpheme itself is optionally nominal. However, the data suggest that there is nothing intrinsically nominal about participles, nor do they in themselves have the capacity to agree. The use of participles in relative clauses is one indication of this; the use of participles with auxiliaries in complex tense constructions is another: here too they do not bear agreement, and they must not be intrinsically nominal (because there is no theta-role for them to receive in this context).

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

Let us say, then, that participle heads in Sakha are never probes for agreement, and are never nominal. Their projections can, however, be used as the complement of an abstract

head that is both nominal and bears agreement features, in particular possessive style agreement. Let us call this abstract head H.¹⁶

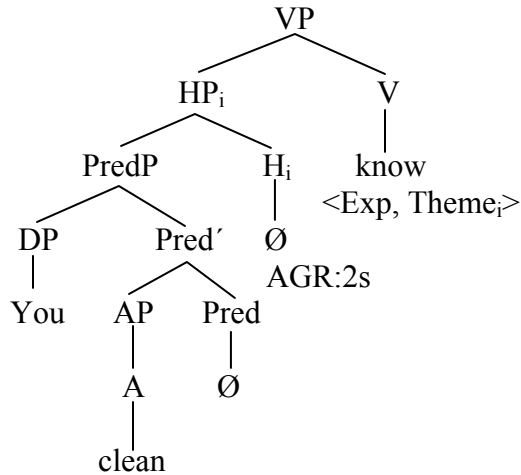
These considerations generalize immediately from the PtpIP projections that constitute a reduced clause built out of a verbal predicate to the PredP projections that constitute a reduced clause built out of an adjectival or nominal predicate. These projections also need to be embedded in an HP in order to get a thematic role from the selecting verb. Given this, the structure of the matrix VP in (37c) is:



Now H, though probably not exactly a noun itself, certainly has many features in common with it, given that HP has a referential index like NP, shares the gross distribution of NP, and acts like NP for purposes of case theory. H can thus trigger a Distinctness violation if it is in the same spell-out domain as an NP predicate. Indeed, H asymmetrically c-commands the NP in (42), there is no known or suspected phase boundary between them, and H and NP share crucial features. Therefore (37c)/(42) is ruled out by Distinctness. In contrast, (37b) is possible because the AP predicate does not share features with H. The representation would be (43).

¹⁶ It is tempting to equate this H head with the head D(eterminer). However, the case that H assigns to the subject of the participial clause under agreement is nominative, whereas D assigns genitive. There are also some subtle, second order differences between gerunds formed by suffixing *-YY* to the verb as compared to participles formed by adding *-AR* (AOR) and *-BYT* (PTPL); the gerunds are even more “nominal” (cf. John Ross’s NP squish). So we tentatively say that gerunds derived by *-YY* combine with true D, and participles combine with H, which has many features in common with D but is not quite identical to it. We hope to return to the subtle degrees of nominalization in Sakha in future work.

(43)

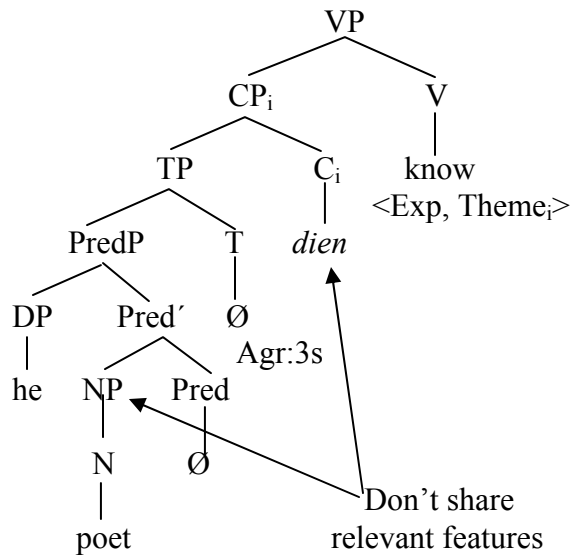


(37d) is possible because the NP predicate is contained in a VP headed by 'be', which is (we assume) a distinct phase. On the one hand, H cannot be left out in (37c), because PredP by itself has no referential index, hence it cannot get a theta-role from the verb. On the other hand, if H is included, it creates a Distinctness violation given its proximity to the nominal predicate with which it shares features.

It is also worth noting that *dien* (although a referential index bearer) is less nominal than H, as shown by the Case theory differences and distributional differences in (38)-(40) (see also note 12). Hence it is not surprising that this C, unlike H, does not force the use of 'be' with a nominal predicate even when it c-commands that predicate:

- (44) Kini xohoonnjut dien bil-l-er. (NV:255)
He poet(3sS) that know-PASS-AOR.3sS
'It is known that he is a poet.'

b.



In course of this discussion, we have focused on clausal complements of V, but the same factors apply to any head that assigns a theta-role to a clausal complement. Hence, ‘be’ is also necessary when an NP functions as the clausal complement of an adjective, like *naada* ‘need’:

- (45) a. *Miexe) en balyksyt-yŋ naada.
 (me.DAT) you fisherman-2sP necessary
 ‘It is necessary (for me) that you be a fisherman.’
- b. (Miexe) en balyksyt buol-ar-uŋ naada.
 (me.DAT) you fisherman be-AOR-2sP necessary
 ‘It is necessary (for me) that you be a fisherman.’

Again, the main predicate ‘necessary’ and the embedded predicate ‘fisherman’ are of different categories, so one might not expect Distinctness to force there to be a copula here. But the clause is an argument of the adjective, so H is needed to “nominalize” the embedded clause, and the presence of the noun ‘fisherman’ and H in the same domain does invoke distinctness considerations.

Also, not surprisingly, distinctness applies to the clausal complement of N. We saw that there are two forms that a participial clause can take when in construction with a noun like ‘rumor’ (see (14) and (15)). We interpret the difference as follows: a clause can be adjoined to ‘rumor’ (like the gapless relative clauses attested in, for example, Japanese) or it can be a true argument of ‘rumor’. If it is adjoined to ‘rumor’, there is no need for H, but Distinctness applies between ‘rumor’ and the nominal predicate, forcing a copula, as already discussed in section 4.1.¹⁷ This gives the paradigm in (14). Alternatively, if the clause is a true complement of ‘rumor’, then an HP projection is needed; Distinctness holds between H and the predicate, again forcing a copula. This gives the paradigm in (15). Thus, in either structure, a copula is necessary.

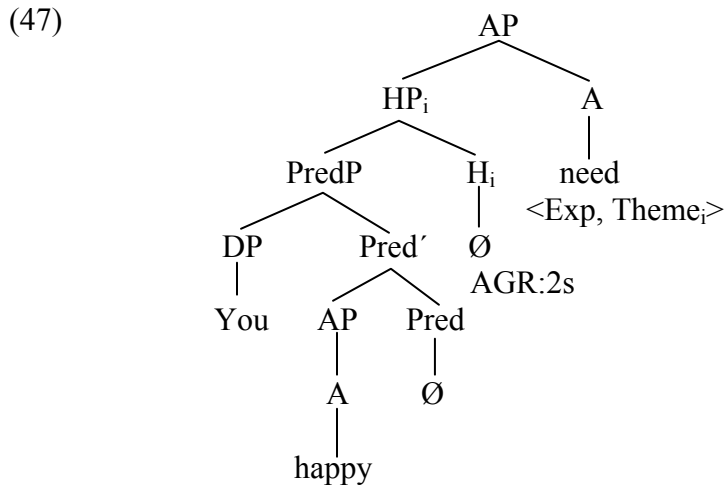
Our proposal in terms of Distinctness does make one new prediction, however. This concerns the use of copular verbs with AP predicates. We have seen that AP predicates do not need to have copulas when the clause-like construction formed from them is the complement of a verb ((37b)), nor when it is the complement of a noun like ‘rumor’ ((15b)). However, we predict that a copula would be necessary in the very special circumstance that a clause containing an adjectival predicate functions as the complement of an adjective. This prediction is strikingly correct, as shown by the contrast in (36).

- (46) a. * (miexe) en öjdööq-üŋ/djollooq-uŋ naada
 (me.DAT) you clever-2sP/happy-2sP necessary
 ‘It is necessary (for me) that you be happy/clever.’

¹⁷ We also expect a distinctness interaction between H and ‘rumor’. Apparently there is one, and it is resolved by genitive case assignment to HP from D and/or by movement of HP to spec, DP. As a result, there is possessive agreement on ‘rumor’ when it takes a participial clause complement, although not when it takes a CP complement headed by *dien*, as seen by comparing (15a) and (35b). Exactly how the possessive DP layer avoids distinctness issues we may leave open here, only noting that it does also in a simple case of a possessive DP like *Masha aqa-*(ta)* ‘Masha father-3sP’ as well.

- b. (miexe) en öjdööx/djolloox buol-ar-yη naada
 (me.DAT) you clever/happy be-AOR-2sP necessary
 ‘It is necessary (for me) that you are happy/clever.’

The relevant substructure for (46a) would be as in (47).



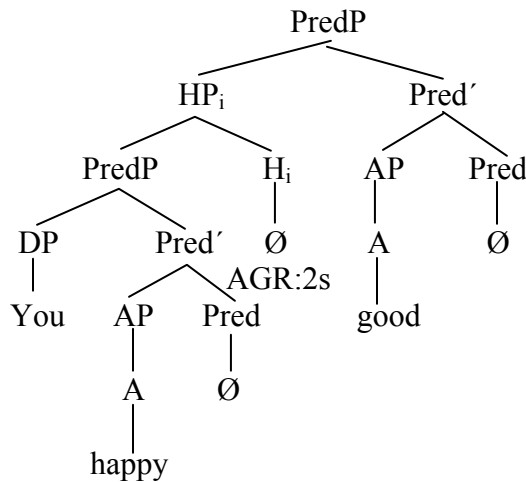
Here, ‘need’ and ‘happy’ share the category adjective, ‘need’ asymmetrically c-commands ‘happy’, and no phase contains the one but not the other (assuming that H is not a phase head). Hence, there is a need for a VP projection dominating PredP in order to form a grammatical structure.

Note that it is crucial to this prediction that the matrix adjective be one of the relatively rare sort that takes an internal argument (a ‘Cinque-adjective’, cf. note 9). If HP functioned as an external argument of the adjective, it would be generated as the specifier of a PredP, where the matrix adjective is the complement of Pred. Then neither adjective would asymmetrically c-command the other, and no distinctness violation is needed. And, in fact, there is no need for a copular verb in (48), which contrasts minimally with (46a).

- (48) En djollooq-uη ücügej.
 You happy-2sP good
 ‘It is good that you are happy.’

The relevant substructure for (48) would be roughly as (49).

(49)



The two adjectives induce a Distinctness violation in (47), but not in (49), as desired. We know of no other reason to suspect this three-way contrast, that a copula is needed in (46), but not in (48) or (37b). We take this to be strong confirmation for our hypothesis that the Distinctness condition is a primary factor in determining distribution of the copula with nonverbal predicates in Sakha.

4.3 Comparison with Turkish

We mentioned above that Sakha and Turkish have both similarities and differences when it comes to the distribution of the copula in nonverbal predications. In both languages, there is no obvious copula in present tense predications, whereas there is a copula with nouns and adjectives but not verbs in the future and other marked tenses. As far as we know, however, Turkish lacks a paradigm in which adjectival predicates pattern with verbs in not needing a copula, whereas nominal predicates do have one. In particular, adjectives are like nouns in needing an overt copula in Turkish in both relative clauses and in clausal complements, as shown in (50) and (51).

- (50) a. pencere-yi kir-an taş (Underhill 1976:277)
window-ACC break-SUBJ.PTPL stone
'the stone that broke the window'
- b. pek sıcak ol-ma-yan su
very hot be-NEG-SUBJ.PTPL water
'the water, which is not very hot'
- c. üniversite-de hoca ol-an o kadın
university-LOC teacher be-SUBJ.PTPL that woman
'that woman, who is a teacher at the university'

- (51) a. Ben Ahmed-in öl-düğ-ün-ü duy-du-m. (Kornfilt 1997:50)

I Ahmet-GEN die-NOML-3sP-ACC hear-PAST-1sS
 ‘I heard that Ahmet died.’

- b. Orhan’-in deli ol-duğ-un-a karar ver-dik
 Orhan’-GEN crazy be-NOML-3sP-DAT for? decide-xxx
 ‘We decided that Orhan was crazy.’ (Underhill 1976:309)

(See also Underhill 1976:309 for examples with subordinating morpheme *-mA*.)

All things being equal, we would expect Distinctness considerations to apply in Turkish in the same way as in Sakha, with perhaps some variation in exactly which categorial features trigger a Distinctness violation when they are shared. But all things are not equal. Unlike Sakha, Turkish has embedding morphemes that must be used when one clause is embedded in another; these include ‘subject participle’ *-yAn*, ‘verbal noun’ *-mA*, and ‘nominalizer’ *-dIG*. Terminology is confusing, since these are called ‘participle’ endings and ‘nominalizers’ in both languages. But they are quite different. These Turkish morphemes are used only on the verbs of embedded clauses, whereas the ‘participle’ morphemes in Sakha are all used on matrix verbs, as markers within the tense-mood-aspect system. Suppose, then, that we follow Kornfilt (to appear) and identify these markers of subordination in Turkish as members of category C (or perhaps as confluents of C with other kinds of clausal heads). As C heads, we expect them to be phase heads, and the CPs projected from them contain the embedded predicate but not the matrix item. Therefore, no Distinctness violation arises. Given this difference in how subordination is marked, we do not expect to see a difference between nominal predicates and adjectival predicates after all.

Even more than this, these C-like heads are affixes in Turkish, and as such their affixation requirements also come into play. More specifically, we claim that they are true affixes rather than clitics. As such, their affixation needs are disrupted by a null Pred head, such that they can attach only to verbal stems, just as many tense markers do in both Sakha and Turkish (as recognized by Underhill 1976). It follows that a verbal copula (*ol-*) is needed to bear these C-like heads with both nominal and adjectival predicates in Turkish. This requirement hides any narrower affect that the Distinctness condition might have. One crucial factor in the special distribution of the copula in Sakha, then, is the fact that it has no distinctive markers of subordination (other than the independent complementizer *dien*); hence there is nothing to conceal Distinctness violations.

5. The distribution of auxiliary in the past tense

There is one additional place in Sakha where we observe copular verbs being used with predicate nouns but not verbs or predicate adjectives. This is in the simple (recent) past tense, as shown in (10), repeated and expanded in (52). This tense can be signaled in one of two ways. It can be expressed in a ‘full’ form, by having the lexical predicate—a verb in participle form, an adjective, or a noun—followed by the dummy auxiliary *e-*, plus past tense marker *-dI* (an affix that can attach directly to bare verb stems), plus an agreement marker. Alternatively, this tense can be signaled by a ‘short form’, in which the auxiliary root and tense marker are omitted, and the agreement marker attaches

directly to the lexical predicate. This short form is possible with verbal and adjectival predicates, but not with nominal ones:

- (52) a. Baaska ülelii-r e-t-e *OR* Baaska ülelii-r-e.
 Baaska work-AOR AUX-PAST-3sP Baaska work-AOR-3sP
 ‘Baaska was working.’
- b. Baaska bytaan e-t-e *OR* Baaska bytaan-a.
 Baaska slow AUX-PAST-3sP Baaska slow-3sP
 ‘Baaska was slow.’
- c. Baaska byraas e-t-e *BUT not* #Baaska byraah-a.
 Baaska doctor AUX-PAST-3sP Baaska doctor-3sP
 ‘Baaska was a doctor.’ (OK only as ‘Baaska’s doctor’)

Let us consider then what would be involved in attributing this pattern also to the Distinctness condition, even though there is no obvious nominal element other than the predicate. More specifically, we entertain the possibility that this could be a Distinctness violation triggered by the proximity to the nominal predicate of a time-denoting pronominal element—a *ZP* (zeit phrase), as in the theory of Stowell (1996). We confess, however, that we have no definitive evidence for such an approach, so we also leave open the possibility that this particular paradigm is a simple morphological effect of blocking.

As a first step toward building up an analysis in terms of Distinctness, we can ask what actually signals the past tense in the short forms of (52a) and (52b). While it is common for auxiliary roots to disappear in shortened synthetic forms, it is somewhat surprising that the tense marker is also absent in the short forms, leaving only an agreement marker. The question arises, then, as to what differentiates past tense from present tense in these forms. The answer is the type of agreement marker: in the present tense, the predicate bears agreement from what Vinokurova (2005) calls the predicative agreement paradigm, whereas in the past tense it bears an agreement morpheme drawn from what Vinokurova calls the possessive agreement paradigm. A minimal pair is:

- (53) a. Min bil-e-bin. (NV:236)
 I know-AOR-1sS
 ‘I know’
- b. Min bil-er-im. (NV:226)
 I know-AOR-1sP
 ‘I used to know.’

As its name suggests, the kind of agreement that is used in the past tense is also characteristic of nouns that agree with their possessors. Thus it is also seen in (54):

- (54) Min kinige-ler-im (NV:154)
 I book-PL-1sP
 ‘my book’

But this should not be taken as meaning that (53b) is nominalized in any sense. “Possessive agreement” is also prominent in the verbal system of Sakha. For example, it is used also in future tense:

- (55) Min aaq-yaq-ym (cf. NV:221)
 I read-FUT-1sP
 ‘I will read.’

Indeed, possessive agreement is used more widely in the verbal system than predicative agreement is. It is used everywhere but in the simplest tense—present—and as the outermost form in certain complex tenses (past resultative—similar to a present perfect in English—and past episodic); in all other tenses, the “possessive” agreement is used (future, immediate past, remote past, past imperfect, pluperfect, and pluperfect episodic) (Vinokurova 2005:238). The question, then, is what can be made of the fact that the same agreement morphemes are used in a part of the nominal system and in a part of the verbal system.

Exploring the possible parallelism further, it might be relevant that a small part of the so-called predicative paradigm is also used on nouns. In particular, third person singular \emptyset and third person plural *-lar* also appear on nouns; in this context, they mark that the noun is (third person) singular or plural. So we have the following additional parallel between noun inflection and predicative verb inflection:

- (56) a. kinige-(\emptyset) book-SG(3rd) ‘(the) book’
 b. kinige-ler book-PL(3rd) ‘(the) books’
 c. bil-er-(\emptyset) know-AOR-(3sS) ‘He knows’
 d. bil-el-ler know-AOR-3pS ‘They know’

We capture the generalization if *-lar* is a realization of agreement in (third person and number on an otherwise empty D head with its NP complement.¹⁸ In other words, third person plural features acquired by agreement are spelled out as *-lar* on both D agreeing with its NP complement and T agreeing with its NP/DP subject. Similarly, third person singular features acquired by agreement are spelled out as \emptyset on both D and T.

What then would possessive agreement be, from this perspective? We can think of it as the morphological realization of a D that agrees twice, once with its NP complement, and once with its specifier. (See Baker 2008:xx, among others, on the possibility of a single head agreement with more than one NP.) The complement of D is always third person,¹⁹ so agreement with this NP will only be realized as *-lar* or \emptyset , but its specifier (the possessor) can have any combination of person and number features, and these can be picked up by agreement. For example, the form *-(t)E* from the “possessive”

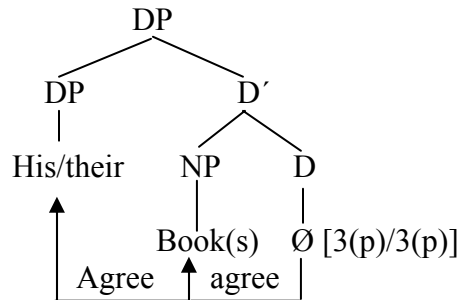
¹⁸ Plural marking is D-like in Sakha in another respect: it is incompatible with pseudo-noun incorporation, unlike in Hindi and Hungarian, where plural marked nominals can be (pseudo)-incorporated. The difference might follow if the plural morpheme(s) in Hindi and Hungarian are number markers on N, whereas it is a kind of agreement on D in Sakha. The observed difference then would follow from this difference in the grammatical status of the plural marker, plus the known fact that D blocks pseudo-incorporation in all languages.

¹⁹Unless perhaps one analyzes local pronouns into component parts...something we do not attempt here.

paradigm would be analyzed an affix that shows agreement with two distinct third person singular NPs (the complement of D and the specifier of D), whereas *-lErE* (also from the possessive paradigm) is an affix that shows agreement with two third person NPs, at least one of which is plural:

- (57) a. kinige-te; kinige-ler-e
 book-3+3(+SG) book-PL-3+3
 ‘his/her book’ ‘their book’ or ‘his books’ or ‘their books’

b.



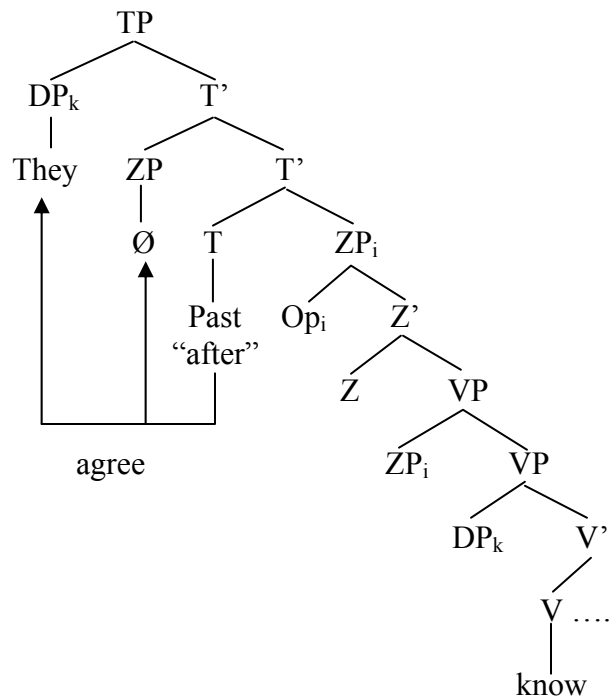
The next question, as we work our way back to the immediate past tense paradigm, is can we extend this “double agreement” view to the use of *-Ø* and *-lar* versus *-(t)E* and *-lEr-E* on verbs, as seen in partial paradigm in (58)?

- (58) a. bil-er-(Ø) know-AOR-3s ‘he knows’
 b. bil-el-ler know-AOR-3p ‘they know’
 c. bil-er-e know-AOR-(3s).3s ‘he used to know’
 d. bil-el-lere Know-AOR-(3s).3p ‘they used to know’

The answer would be yes, if we could say that past tense and future tense verbs agree with a second NP-like element, something that is not there in the present tense. What could that be? The answer, we suggest, is a ZP, in the sense of Stowell (1996).

Building on earlier work by Zagana, Stowell takes the view that tenses are semantically predicates that take two time-denoting expressions as their arguments. The internal argument of a T head is a time-denoting expression is constructed from VP: it refers to the time at which the event denoted by VP takes place. The external argument of a Tense head is a null pronoun-like entity, which Stowell calls ZP (for ‘zeit phrase’). In simple matrix clauses (or, more generally, in the absence of an overriding control relationship), this null ZP, having no descriptive content of any kind, can only refer to the time when the sentence is uttered. On Stowell’s assumptions, then, a past tense sentence like (58d) has the syntactic structure in (59).

(59)

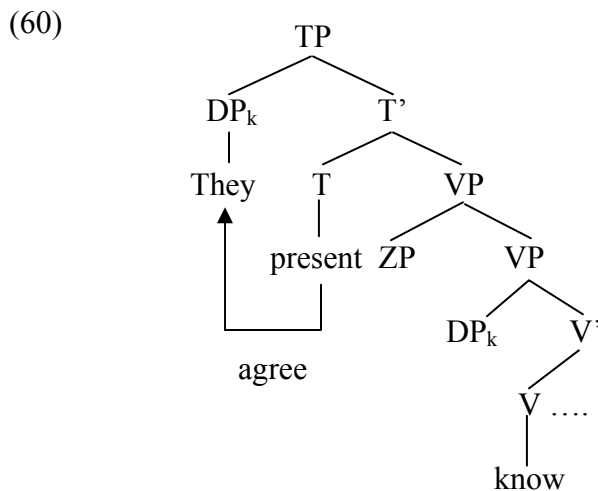


Stowell takes the past tense morpheme to mean ‘after’, and its two semantic arguments are the null ZP and (something that contains) the VP. (Stowell technically assumes that VP is embedded in another ZP phrase, thereby creating a time-denoting relative clause, much as VP embedded in a DP phrase might constitute a thing-denoting relative clause, but these details are not crucial here.) Since the null ZP must refer to the time of the utterance, the sentence as a whole means “Now is after the time when they knew that...”—an appropriate rendition of what ‘They used to know that...’ actually means. The subject ‘they’ is not a semantic argument of Tense; it is an argument of the verb (or *v*), and so is generated originally inside VP/*v*P. It raises into the (outer) specifier of Tense because of an EPP feature on T, just as in the baseline theory; the only difference is that Tense has two specifiers on Stowell’s account, not just one.

Now the structure in (59) has an interesting consequence for agreement. We can now say that T in Sakha is like D in Sakha: it agrees twice, once with each of its two specifiers. More specifically, T agrees first with its innermost specifier, ZP, and second with its outer specifier, NP/DP, in much the same way that D agrees first with its NP complement, and second with its NP/DP specifier in (57). The first of these agreements is even more impoverished on T than it is on D: ZP is always third person singular (there is only one time now, and it is neither the speaker nor the addressee of the sentence). As a result, the first agreement is always phonologically null in Sakha. However, we can detect that it happened because it affects the form of the agreement with the subject. That is now the second agreement rather than the first agreement, so it shows up as a form from the possessive paradigm. This account easily generalizes to the fact that “possessive” agreement is used with the subject also in the future tense and the remote

past tense. These have exactly the same structure as (59) on Stowell’s view; all that changes is the lexical meaning of the Tense node: the future marker means “before” instead of “after”; the remote past marker means something like “long after”. Since the phrasal configuration is the same, and agreement is defined over the phrasal configuration, the kind of agreement that is used is predictably the same in all of these tenses.

Why then should there be a different kind of agreement in present tense only? Here we depart somewhat from Stowell. Stowell assumes (tentatively) that present tense also has the structure in (59), but present tense means “simultaneous with”. With that change, the meaning would be “Now is simultaneous with the time that they knew that...”. But since simultaneity is a kind of identity, it is a trivial relation, and there is a more direct way to say this: one could get the same effect simply by saying “They knew that ... now.” Suppose, then, that present tense is technically meaningless in Sakha; it appears in a structure for purely formal reasons (as the bearer of agreement and an EPP feature). It thus has no ZP arguments, and just combines with a VP, as in the following structure:



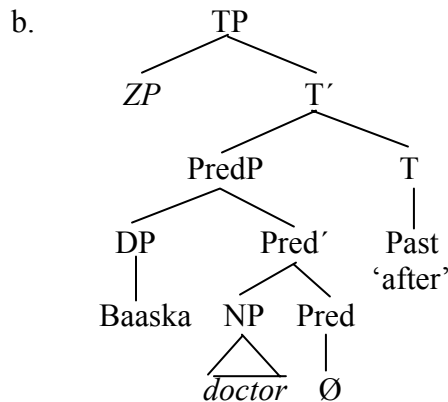
Here there is no extra ZP argument, and we did not bother making VP into a time-denoting expression. Giving no substantive interpretation to ‘present’, the sentence means simply “They know that ... at time t, referred to by ZP”. Since ZP has no descriptive content, in the absence of some control relationship, it can only denote ‘now’, the time of the utterance. (60) thus means ‘they know that ... now’. In essence, a present tense meaning can be constructed out of a proper subpart of Stowell’s structure, without assigning any distinctive meaning to the present tense morpheme, simply because of the interpretation that unbound null ZP gets anyway. Suppose, then, that present Tense (at least in Sakha) is a degenerate instance of tense in this way.

This has the desired consequence for agreement. In this particular situation, T has only a single specifier, the raised subject, but no additional ZP argument. Hence it agrees only once, with its subject. The result is “predicative agreement”—the same kind of agreement found on a D that has a complement but no specifier.

The key correlation that we capture in this proposal is that tenses with a more complex semantic structure (past and future tenses, as opposed to present) also use a more complex agreement form—the sort of agreement found in relatively complex possessed NPs rather than simple unpossessed NPs. By developing our view in this way, including ZPs in nontrivial tenses only, we can say that this parallelism is syntactically significant, not a morphological accident of Sakha.

The upshot of this, then, is the proposal that there is a ZP pronoun denoting a time in past tense clauses but not in present tense clauses. Moreover, it is clear that this ZP must have features in common with NP/DP. Not only is it a pronoun-like expression that can refer to an individual (a time), as in Stowell’s conception, but it is like an NP in that it participates to some extent in agreement relationships. Now given that it has features in common with NP, it can cause a Distinctness violation when it c-commands a predicate nominal within the same spell-out domain. This could explain the badness of the short form of (52c), repeated here as (61a), the structure of which would be as in (61b).²⁰

- (61) a. #Baaska byraah-a.
 Baaska doctor-3sP
 Not as: ‘Baaska was a doctor.’ (OK as ‘Baaska’s doctor’)



In contrast, the auxiliary *e-* in the long form of (52c) (*Baaska byraas e-t-e*, ‘Baaska doctor AUX-PAST-3sP’) counts as a phase head, separating the predicate nominal from the ZP. Hence, this long form does not run afoul of the Distinctness condition.²¹ This then is a way of extending our account to the distribution of auxiliaries in the past tense, which coheres with other grammatical properties of Sakha.

²⁰ We leave entirely open here just how a time-denoting expressing is constructed out of PredP, the internal argument of T in (61b). It is possible that this will require some extra structure, like the ZP layer in Stowell’s structure in (59). That should not matter for our purposes, as long as none of the additional heads (e.g., Z) is a phase head.

²¹ See note 11 on some thoughts about Distinctness interactions between the subject and the nominal predicate. We also need to be sure that ZP doesn’t have an unwanted Distinctness interaction with the NP arguments of a verb. Direct objects that stay in VP will be in a different phase. Direct objects that scramble out of NP are embedded in a KP (“case phrase”) anyway (perhaps to avoid a Distinctness violation with the subject); that will also repair/avoid a distinctness violation with ZP. The only remaining question, then, is Distinctness between ZP and the subject....

Of course, this analysis is considerably more speculative than the ones offered in section 4. In addition to Distinctness, it makes crucial use of a less-familiar syntactic category (ZP) in a somewhat novel way. It also reads much significance into an apparent parallelism between the use of agreement morphemes on possessive NPs and the same agreement markers on past tense verbs. It is possible that we are overinterpreting this morphology, and the parallelism is a diachronic “accident”, without the syntactic significance we have suggested. Thus, we also leave open a fall-back proposal. Perhaps the short form in (61a) is not used because of a form of morphological blocking: possessive-type agreement appearing on a noun has another obvious meaning—it can express true possession—and speakers reserve the form for this, preventing an interpretation of such forms as past tense predications. We are not sure this blocking account would really be any simpler to work out in detail than our more abstract proposal,²² but we leave it open as a more conservative and morphologically-oriented alternative.

If this alternative proves to be the better choice, it means that there is not a single cause for using auxiliaries with predicate nominals in Sakha: in some cases the cause is syntactic (the Distinctness condition); in others it is morphological (blocking within the inflectional paradigm of nominals). That view would be a bit less elegant, but it would not take away from our major points. In particular, a nonmorphological explanation would still be called for for the data in section 4, because in the examples discussed there a copula is used even when there is no affix to be borne (especially in relative clauses). The solution should also be nonsemantic, because the distribution of copular verbs does not correlate perfectly with the distinction between inherently predicative and nonpredicative categories (section 3). Rather, the syntactic Distinctness condition does the job.

6. Conclusion

In this paper, we have investigated a number of environments in which adjectival predicates do not need a copular verb but nominal predicates do in the Sakha language. We have shown that one need not accept Vinokurova’s (2005) argument that these environments show that adjectives have different argument structures from nouns, ones that include a subject argument. Rather, the patterns in question can be nicely explained by Richards’s (2006) Distinctness condition. This implies that nominal predicates will need a copula specifically when they merge with some other nominal head, whether overt (the heads of relative clauses, nouns like ‘rumor’) or covert (the null nominal head H

²² As an example of the difficulties a blocking analysis would face, we mention that it is common to use the affix *-lar* on referential nouns (as a plural marker), but this does not block *-lar* being used as a subject agreement on predicative nouns, as for example, in (i).

- (i) Bu uolat-tar biir xamaanda-lar.
 This boy-PL one team-(3)PL
 ‘These boys are a team.’

Similarly, the agreement morpheme *-(t)A* is not impossible as a possessive marker on Adjectives, even though it can be predicate in (xx). It sometimes looks easy to say one form blocks another, but far from easy to say in a principled way why sometimes there is blocking and sometimes not.

involved in clausal complementation). This Distinctness analysis extends even to the distribution of the copula in the immediate past tense, if we accept the presence of Stowellian ZPs which refer to the utterance time as an important feature of the structure of a clause in all tenses other than the simple present tense. There is, then, no compelling reason in this data to say that adjectives and nouns differ in intrinsic predicativeness; on the contrary, two unaccusativity diagnostics (pseudo-noun incorporation and possessor raising) support the idea that adjectives and nouns are actually the same in this regard, as predicted by Baker's (2003) theory of the lexical categories. We conclude that the complex and unusual distribution of the copula in Sakha does not show that Baker's theory of lexical categories is not applicable to Sakha, but rather that Richards's theory of Distinctness is. An even broader implication of this study is that Baker's project of deducing differences among the lexical categories from a single core difference plus independent principles can be extended to this new range of data.

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