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Noun Incorporation and Case : Evidence from Sakha

I. Introduction

A major facet of Bittner & Hale's analysis of case assignment is that transitive verbs in nominative-accusative languages require an adjoined D in order to assign accusative case to the KP internal argument. Sakha (a.k.a. Yakut) possesses a noun-incorporation¹-like phenomenon that requires that the thematic goal receive accusative case when the direct object is incorporated. The combination of Bittner & Hale's analysis with the data from Sakha provides further evidence for a D adjoined to the verb as well as an explanation of the NI-phenomena in Sakha, leading to a potentially new way to analyze NI in general.

II. About Sakha

- Sakha (also known as Yakut) is a typically Turkic language, featuring vowel harmony, strict SOV word order with modifiers before modified, suffixing morphology, and a lack of agreement between nouns and adjectives.
- Sakha is spoken in Russia in the Sakha Republic (formerly Yakutia):

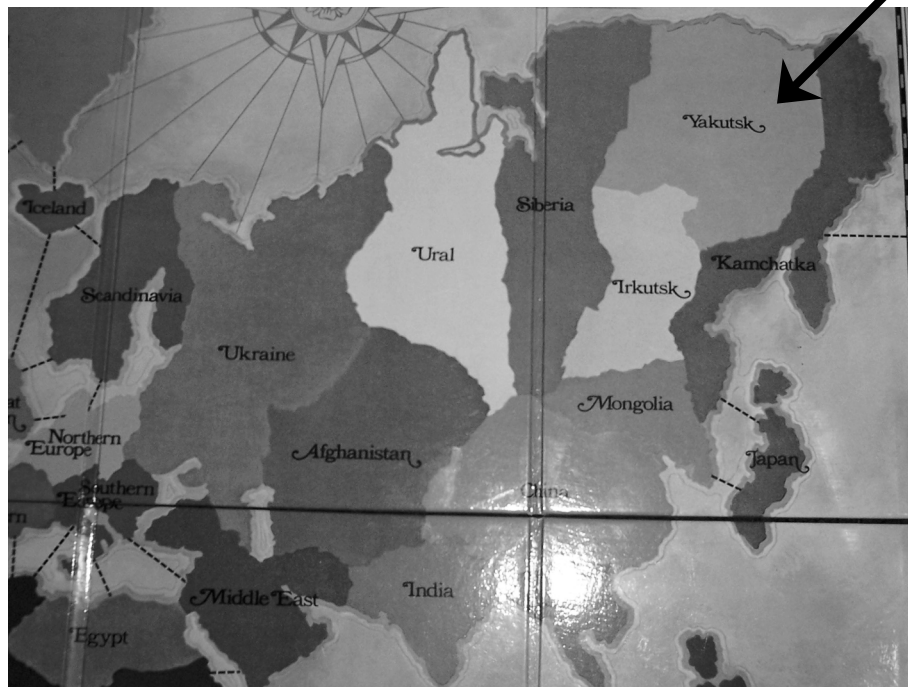


Figure 1

¹ Henceforth, NI.

All about –LAA-

- Sakha possesses a verbalizing suffix –LAA- which, I claim, acts in certain cases like an incorporating verb.
- The –LAA- suffix is found in most other Turkic languages, where it is a strictly derivational morpheme. No other Turkic languages appear to have any sort of NI.
- I represent –LAA- using archiphonemes, as it occurs in 16 different forms based on consonant assimilation and vowel harmony:

Figure 2

AFTER:	l, V	p, t, ç, s, x	r, y	m, n, ŋ
a, i, u	-laa-	-taa-	-daa-	-naa-
e, i, ü	-lee-	-tee-	-dee-	-nee-
o	-loo-	-too-	-doo-	-noo-
ö	-löö-	-töö-	-döö-	-nöö-

- The –LAA- suffix is promiscuous, attaching to:
 - **Nouns:**
 - (1) *ötüye* ‘hammer’ > *ötüye-lee-* ‘to hammer’
 - (2) *oĝo* ‘child’ > *oĝo-loo-* ‘to babysit’
 - **Numerals:**
 - (3) *ikki* ‘two’ > *ikki-lee-* ‘to do two times’
 - (4) *ikkis* ‘second’ > *ikkis-tee-* ‘to do a second time’
 - **Question Words:**
 - (5) *tuox* ‘what?’ > *tuox-taa-* ‘to do what?’
 - (6) *xanna* ‘where?’ > *xanna-laa-* ‘to go where?’
 - **Adverbs:**
 - (7) *erde* ‘early’ > *erde-lee-* ‘to do something early’
 - (8) *baçça* ‘this much’ > *baçça-laa-* ‘to do this much’
 - **Interjections:**
 - (9) *ayikka!* ‘interjection of pain’ > *ayikka-laa-* ‘to express pain’
 - (10) *hay!* ‘interjection for driving cattle’ > *hay-daa-* ‘to drive cattle’
- The resulting verbs then are conjugated like any other verb:
 - (11) *Üleĝ-iŋ töhö-löö-tüŋ?*
 Work-2s.poss how.much-LAA-2sPST
 ‘How much of your work have you done?’
 - (12) *Miexe telefon-naa-biŋ.*
 1s.DAT telephone-LAA-3s.hearsay
 ‘He supposedly called me.’

- But...

(13) *Sargi oĝo-nu kihil, saharxay, küöx šarik-tar-daa-ta.*
 Sargi child-ACC red, yellow, blue balloon-PL-LAA-3sPST
 ‘Sargy gave the child red, yellow, and blue balloons.’

- The noun *šarik* ‘balloon’ is being modified by *kihil, saharxay, küöx* ‘red, yellow, blue’. (The modifiers do not have an adverbial ending, in which case their forms would be *kihildik, saharxaydik, küöxtük*, so we know that the only available modify-ee must be the INCORPORATED NOUN *šarik*.)
- This sort of phenomenon (i.e. modification of the incorporated noun) occurs only with *nouns* that have the –LAA- suffix added.

Vinokurova’s Breakdown

- Nadezhda Vinokurova’s breakdown of –LAA- in Figure 3 shows that in certain cases (the ‘provide with N’ and ‘go toward N’ cases) can be modified. This is key to interpreting these data as NI.

Figure 3

MEANING ²	MODIFIED N	PLURAL N	TRANSITIVE V
1.) Provide w/ N	Y	Y	Y
2.) Go toward N	Y	N	N
3.) Use N as instrument	N	N	Y
4.) Remove N	N	N	Y
5.) Make/Hunt/Gather N	N	N	N
6.) Look after N	N	N	Y
7.) Consume N	N	N	Y
8.) Imitate/Act/Work as N	N	N	Y
9.) Play N	N	N	N
10.) Weather N	N	N	N

Is it NI?

- Compare:

(14) *Sargi oĝo-lor-o kihil, saharxay, küöx šarik-tar-daa-ta.*
 Sargi child-PL-ACC red, yellow, blue balloon-PL-LAA-3sPST
 ‘Sargy gave the children red, yellow, and blue balloons.’

vs.

² Examples of all of these may be found in Vinokurova 2005.

(15) *Sargī oḡo-lor-go kihil, saharxay, küöx šarik-tar-nī bier-de.*
 Sargī child-PL-DAT red, yellow, blue balloon-PL-ACC give-3sPST
 ‘Sargy gave the children red, yellow, and blue balloons.’

(16) *Mende soḡuruu doydu-laa-ta.*
 Mende southern country-LAA-3sPST
 ‘Mende went to a southern country.’

vs.

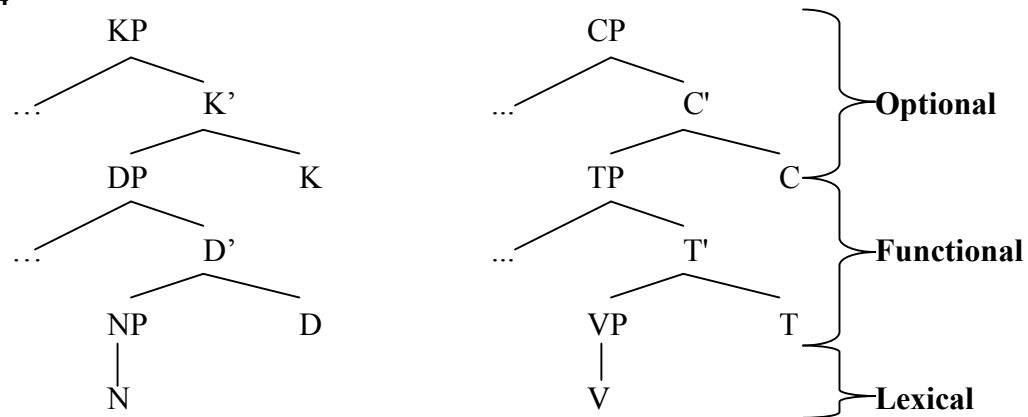
(17) *Mende soḡuruu doydu-ga bar-da.*
 Mende southern country-DAT go-3sPST
 ‘Mende went to a southern country.’

(18) **Sargī oḡo-ḡo kihil, saharxay, küöx šarik-tar-nī laa-da.*
 Sargī child-DAT red, yellow, blue balloon-PL-ACC ??-3sPST
 ‘Sargy gave the child red, yellow, and blue balloons.’

- Based on the above case alternations and the ability of the noun to be modified, I interpret the -LAA- morpheme as acting in some way like an incorporating verb.
- Having established the phenomena in Sakha, I turn to Bittner and Hale’s system of case-assignment to account for these data.

III. BITTNER & HALE’S CASE ASSIGNMENT SYSTEM

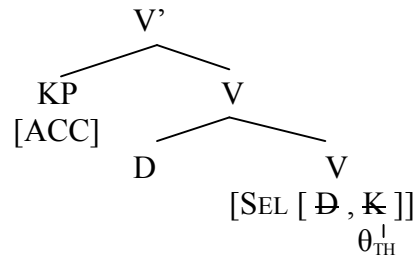
Figure 4



- Case-marking occurs only on those nominals with K-heads. Other nominals (i.e. DPs) receive no case and are interpreted as nominative/absolutive.
- In order to receive marked structural case (accusative or ergative) a *Case-competitor* must be present. A Case-competitor is a K-less nominal which is, roughly, a co-argument of a K-head.

- If an empty-headed KP is Case-bound by D or I (i.e. it locally c-commands the KP and governs a Case-competitor for it), the KP receives ergative case.
- If an empty-headed KP is Case-bound by V or P (i.e. it locally c-commands the KP and governs a Case-competitor for it), the KP receives accusative case. In order for this to occur, the below structure must be in place:

Figure 5



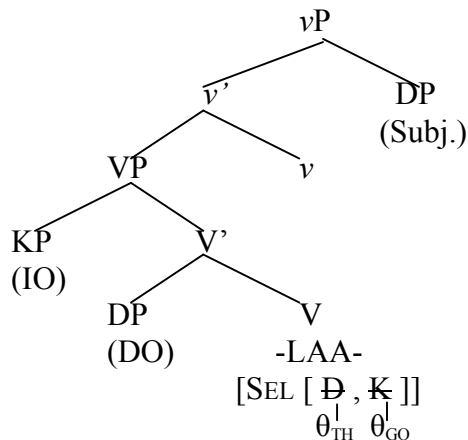
(19) [DP Telley-ler] [V[KP Mende-ni]] [V D+menerit-ta]]
 Mushroom-PL Mende-ACC D+make.hallucinate-PST3s
 ‘The mushrooms made Mende hallucinate.’

- Other cases (e.g. dative, instrumental) are assigned by language specific conventions.

What this Means for Sakha

- I argue that Sakha’s –LAA- morpheme is unusual, in that it selects for a DP, rather than a KP, to fulfill its *theme* requirement. This results in the layout shown in Figure 6.

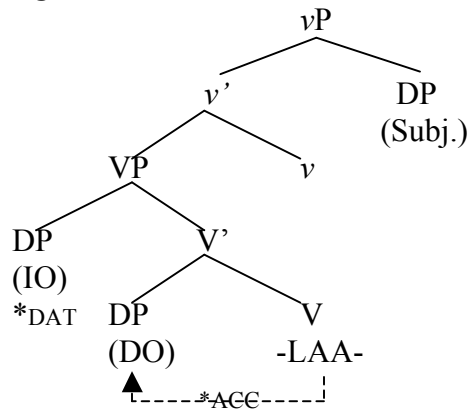
Figure 6



(20) [DP Sargi] [KP[DP oğo]-nu] [v[DP kihil, saharxay, küöx šarik-tar]-daa-ta.]
 Sargi child-ACC red, yellow, blue balloon-PL-LAA-3sPST
 ‘Sargy gave the child red, yellow, and blue balloons.’

- Traditional systems of case assignment are unable to account for the data in Sakha:

Figure 7



- Under more traditional methods of case-assignment, there is no way to prevent accusative case from being assigned to the direct object and dative case to the indirect object.

So, Where's the Noun Incorporation?

- The result of the syntax is a structure DP + -LAA-. This is clearly nothing like canonical noun incorporation.
- At this point, however, morphology and phonology take place. The morphology requires that -LAA- not stand as an independent word, so it attaches to the nearest whole word (which is always the nominal head). Phonology applies vowel harmony and consonant assimilations to create the 16 possible forms of -LAA- shown in Figure 1.
- The result of this interaction between syntax, morphology, and phonology is something that is like NI in certain respects, yet unlike it in many others. From the point of view of syntax, there is no NI occurring -- -LAA- is just an unusual verb. From the point of view of morphology, however, NI is a viable explanation.
- If I find that adverbs or other modifiers are able to intervene between the DO and verb in constructions not-using -LAA-, or if scrambling occurs, noun incorporation may be a viable option to explain the apparent word-hood of the N+LAA complex. Without such evidence, NI is not justified.

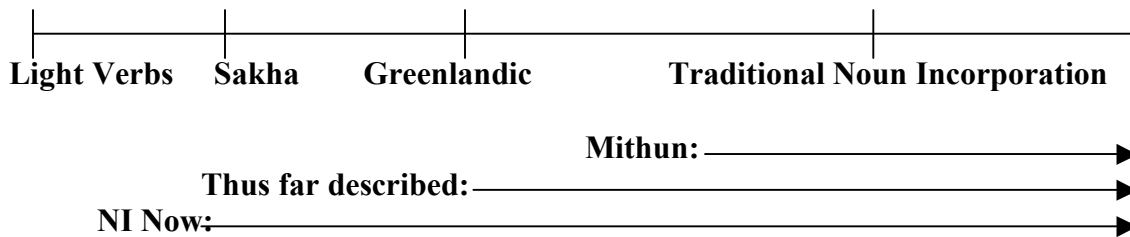
Conclusions

- Sakha possesses a form of NI, unlike that which is found in any other Turkic language. Compare (21) to the same form in Uzbek:

- (21) Sakha: *Sargi oġo-nu kihil, saharxay, küöx šarik-tar-daa-ta.*
 Sargi child-ACC red, yellow, blue balloon-PL-LAA-3sPST
 ‘Sargy gave the children red, yellow, and blue balloons.’
- (22) Uzbek: **Sargi o’gil-i qizil, sariq, ko’k šarik-lar-la-di.*
 Sargi child-ACC red, yellow, blue balloon-PL-LAA-3sPST
 ‘Sargy gave the children red, yellow, and blue balloons.’

- There is a broad range of NI-type phenomena, as shown in the scale below:

Figure 8



- Further analysis may account for other NI-like phenomena, such as light verbs, which behave similarly:
- (23) Uzbek: *Alido’st men-i qo’ng’iroq qil-di.*
 Alidost me-ACC phone.rign LV-PST3s
 ‘Alidost called me.’
- (24) Turkish: *Bu merkez kredi kart-ı kabul ed-er.*
 This store credit card-ACC acceptance LV-AOR.3s
 ‘This store accepts credit cards.’

(Note that these light verbs select for Ns only – no external modification may occur.)

By analyzing data from Sakha and implementing Bittner and Hale’s system of case assignment, we have shown that Sakha possesses a form of NI unlike that of any other Turkic language, and that Bittner and Hale’s system is required to account for it. The case alternations in Sakha, along with the possibility of modification of the incorporated noun provide evidence that there is, indeed, a D adjoined to the verb.

Selected References

- Baker, Mark C. Incorporation: A Theory of Grammatical Function Changing. Chicago: UC Press, 1988
- Bittner, Maria, and Ken Hale. "The Structural Determination of Case and Agreement." Linguistic Inquiry 27 (1996): 1-95.
- Ethnologue: Languages of the World. Ed. Raymond G. Gordon. 15th Ed. SIL International. 2005 <<http://www.ethnologue.com>>.
- Kirişçioğlu, M. Fatih. Saha (Yakut) Türkçesi Grameri. 2nd ed. Atatürk Kültür, Dil ve Tarih Yüksek Kurumu 594. Ankara: Türk Dil Kurumu, 1999.
- Kroeber, Alfred L. "Noun Incorporation in American Languages." in XVI Internationaler Amerikanisten-Kongress. Ed. F. Heger. Vienna: Hartleben (1909): 569-576.
- ... "Incorporation as a Linguistic Process." American Anthropologist 13 (1911): 577-584.
- Mithun, Marianne. "The Evolution of Noun Incorporation." Language 60 (1984): 847-895.
- ... "On the Nature of Noun Incorporation." Language 62 (1986): 32-38.
- Öztürk, Balkız. Case, Referentiality and Phrase Structure. Linguistik Aktuell/Linguistics Today 77. Philadelphia: John Benjamins, 2005.
- Sadock, Jerrold M. "Noun Incorporation in Greenlandic: A Case of Syntactic Word Formation." Language 56 (1980): 300-319.
- ... "Some Notes on Noun Incorporation." Language 62 (1986): 19-31.
- Vinokurova, Nadezha. Lexical Categories and Argument Structure: A Case Study with Reference to Sakha. Diss. Universiteit Utrecht, 2005. Utrecht.