Northern Language Studies 10: 1-16（Japan Association of NoLS, 2020）

[Special Feature: Linguistic Typology and Studies of Northern Languages]

Agglutinativeness, Polysynthesis, and Syntactic Derivation in Northeastern Eurasian Languages

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Keywords: Morphology, Linguistic Typology, Sakha, Tyvan, Lexical Integrity

1. Introduction

This paper first provides a brief overview of the definitions and properties of morphological units and morphological typology.[1] The paper then examines the morphologies of Northeastern Eurasian languages, particularly Sakha and Tyvan, from the perspective of morphological typology.[2] In conclusion, the two languages are not polysynthetic even though they have rich morphology; instead they have a distinctive derivational process called syntactic derivation that is exceptional in light of the lexical integrity hypothesis. Section 2 provides an overview of the definitions and properties of morphological units: words, clitics, and affixes. Section 3 gives an overview of the definitions and properties of morphological typology: isolating, fusional/inflecting, agglutinative, and polysynthetic languages. Section 4 argues for the polysynthesis of Sakha and Tyvan by focusing on the lexical suffixes in the two Turkic languages. Section 5 illustrates examples of syntactic derivation in Sakha, Tyvan, and Japanese, and asserts that the lexical integrity hypothesis is not a cross-linguistic principle.

2. Overview of the definitions and properties of morphological units

This section provides an overview of the definitions and properties of morphological units: words, clitics, affixes, as well as inflectional affixes and derivational ones. First,

[1] This paper is a revised version of my presentation read at the 2nd Annual Meeting of Japan Association of Northern Language Studies (on Nov. 09, 2019, at University of Toyama). I am very grateful to Prof. Megumi Kurebito and two anonymous reviewers for their valuable suggestions and corrections. I am also thankful to the meeting's participants for their comments and questions. The linguistic data of Sakha and Tyvan were collected from the corpus containing online newspaper articles and through fieldwork conducted by the author. This study is financially supported by Grant-in-Aid for Scientific Research (No. 16KK0026, 17H04773, 18H03578, and 18H00665).

[2] Although there is a variety of languages from different language families in the Northeast Eurasian region, I will focus on the two Turkic languages Sakha and Tyvan, which I have studied for years.

based on the author's point of view, the basic properties of words, clitics, and affixes are illustrated as shown in Table 1.

Table 1. Basic properties of words, clitics, and affixes

	Domain	Morphological type	Independent utterance
Words	Syntax	Free morpheme (+ affix)	Possible
Clitics		Bound morpheme (+ affix)	(Basically) impossible
Affixes	Morphology	Bound morpheme	Impossible

Words may consist of a single free morpheme or a free morpheme plus an affix. In some cases, a free morpheme has an allomorph that itself is dependent and appears only as part of a word. Some free morphemes can be independent words only when accompanied by an affix, as in the case of Japanese or Korean verbs. These cases are illustrated through Japanese examples below:

(1) *hako* 'box': A free morpheme and an independent form
(2) *bako*: A free morpheme and a dependent form, an allomorph of *hako* 'box'
(3) *aruk-u*: A free morpheme *aruk* 'to walk' with the present suffix *-u*

The author regards that clitics are bound (dependent) syntactic units. Since clitics are bound, and they cannot be used in utterance alone.[3] At the same time, however, they are syntactic units. This is the reason they can be attached to a variety of linguistic forms. This view is in line with the discussions of Nevis (2000: 390): "Clitics usually act like words with respect to syntax"; or Klavans (1985: 97): "One of the differences between a clitic and an affix is that a clitic is generally less selective of its host."

Affixes always appear as a part of a word. It is not a simple task to distinguish inflectional affixes from derivational ones. Haspelmath and Sims (2010) and Arkadiev and Klamer (2019), among many others, argue about this problem in detail. Table 2 is a list of properties of inflection and derivation, adopted from Haspelmath and Sims (2010: 90).

[3] In some languages, however, pragmatic contexts may allow clitics to appear in an independent utterance: for example, the preposition *без* 'without' in Russian *с молоком или без?* 'with milk or without?' Pragmatic contexts also enable Japanese case clitics (for example, the nominative *=ga*) and copular clitics *=da* and *=desu* to appear independently.

Table 2. A list of properties of inflection and derivation

Inflection	Derivation
(i) relevant to the syntax	not relevant to the syntax
(ii) obligatory expression of feature	not obligatory expression
(iii) unlimited applicability	possibly limited applicability
(iv) same concept as base	new concept
(v) relatively abstract meaning	relatively concrete meaning
(vi) compositional meaning	possibly non-compositional meaning
(vii) expression at word periphery	expression close to the base
(viii) less base allomorphy	more base allomorphy
(ix) no change of word-class	sometimes changes word-class
(x) cumulative expression possible	no cumulative expression
(xi) not iterable	possibly iterable

The properties shown in Table 2 are not the definition of inflection or derivation. The two morphological processes are distinguished by definition as in Nichols's (2016: 724) statement: "derivation creates new words: inflection creates word forms which respond to their syntactic context." Additionally, Aikhenvald (2007: 35) mentions that "Derivational morphology results in the creation of a new word with a new meaning."[4]

3. Overview of the definitions and properties of morphological typology

This section provides an overview of the definition of morphological typology in language. First, the basic properties of isolating, fusional/inflecting, agglutinative, and polysynthetic languages are illustrated by two criteria: semantics (lexical or grammatical concepts) and morpheme types (word or affix).

In isolating languages, both the lexical and the grammatical concepts may appear as a word (or a clitic). For example, Chinese has many word forms related to such grammatical categories as case relation, aspect, voice, mood, and negation.

In agglutinative languages, grammatical concepts appear as an affix and "one grammatical form indicating one grammatical meaning" (Helmbrecht 2004: 1247).

In fusional or inflecting languages, grammatical concepts appear as an affix, and "they employ bound morphs that indicate two or three grammatical functions in one form" Helmbrecht 2004: 1247).

There is no widely accepted definition for polysynthetic languages (see Fortescue et al. (2017: 1), Bynon (2004: 1222), and Nichols (2016: 732), among others). Here, the

[4] However, there are studies that are prudent in making a clear-cut line between inflection and derivation: Bybee (1985: 87), Spencer (1991: 9), Booij (2006), Dixon (2010a: 218), Haspelmath and Sims (2010: 102), etc.

author adopts Mattissen's (2004) idea and formulates it as follows: In polysynthetic languages, both the lexical and grammatical concepts may appear as an affix. Consequently, a word in polysynthetic languages can contain many morphemes.

> Mattissen (2004: 190): "a language is acknowledged to be polysynthetic because of (i) the existence of complex, **polymorphemic verb forms** which allow, within one word unit, for components in the form of non-root bound morphemes with rather "lexical" meaning and optionally for concatenation of lexical roots, (ii) with these components expressing several of the **following categories**: event or participant classification and quantification, setting (e.g. 'in the night'), location or direction, motion, instrument (e.g. 'by hand'), manner ('by pulling', 'quickly'), modality (including evidentiality), degree, scale ('only', 'also') and focus, chronology (e.g. 'first', 'again') as well as the usual categories, valence, voice, central participants, tense, aspect (phase), mood, and polarity." (boldface by the author)

4. Agglutinativeness and polysynthesis in Northeastern Eurasian languages

This section argues in what way and to what extent Northeastern Eurasian languages, especially the two Turkic languages Sakha and Tyvan, are polysynthetic. This section particularly focuses on the semantic categories of lexical affixes and denominal verbalizing affixes.

Bynon (2004: 1222) comments that "the question of whether or not these languages should be treated as a subtype of the agglutinative ones or should be counted as a separate type was never resolved." In Section 3, I adopt Mattissen's (2004) idea and consider that in polysynthetic languages, both the lexical and grammatical concepts may appear as an affix. Related to the criteria, there are two issues to consider.

The first is the treatment of clitics. As discussed in Section 2, clitics are regarded as a syntactic unit. In this respect, agglutinativeness or polysynthesis should be measured only by affixes, not including clitics. The second one is the distinction between lexical concepts and grammatical ones[5]. Let us take the English pair of comparatives *cheaper* and *more expensive* as an example. One may regard that being comparative is a grammatical concept because it is expressed by the suffix *-er* or that it is a lexical one because it is expressed as the lexical item *more*.

Actually, one can find a variety of lexical affixes in Northeastern Eurasian languages. For example, Kurebito (2017) and Kazama (2010) show plenty of examples of lexical affixes in Koryak and in the Tungusic languages, respectively. Sakha also seemingly has "lexical" affixes: for example, *-msex* in (4) is comparable to 'to like' and

[5] Kazama (2010: 78-80) also argues the difficulty in defining lexical affixes and distinguishing them from grammatical ones, referring to several studies including Sapir (1921).

-leex in (5) is to 'to have.'

Sakha

(4) *kinige-**msex**-pin*
book-like-COP.1SG
'I like books.'

(5) *kinige-**leex**-pin*
book-PROP-COP.1SG
'I have a book.'

Can Sakha be regarded as a polysynthetic language? Here, I would like to recall Mattissen's (2004) definition and the semantic categories that are diagnostically acknowledged to be polysynthetic: event or participant classification and quantification, setting, location or direction, motion, instrument, manner, modality, evidentiality, degree, scale and focus, and chronology. Typical polysynthetic languages such as Eskimo and Nuuchahnulth, surely have affixes related to such categories.

Eskimo (Miyaoka 2002: 53)

(6) *qaya-pi-li-yu-kapigg-ni-nqigte-llru-nric-ugnarq-ut*
kayak-real-make-DES-EMP-say-again-PST-NEG-INF-IND.3PL
'Maybe they did not say again they (themselves) wanted very much to make a genuine kayak.'

Nuuchahnulth (Nakayama: 2017: 614)

(7) *tak-at-'is*
go-move.downstream-on.the.beach
'go down the stream'

Sakha and Tyvan surely exhibit a word containing several suffixes. For example, a Sakha word may contain up to five suffixes.

(8) *bil-ler-be-tex-teri-tten*
know-CAUS-NEG-VN.PST-3PL-ABL
'because they did not let [us] know'

However, the number of morphemes a word can contain is not diagnostic of polysynthesis. No Sakha words, including example (8), contain suffixes of the semantic categories in Mattissen's (2004) definition. The author cannot find one in Tyvan either.

Table 3. Denominal verbalizing affixes in Northeastern Eurasian languages

	Koryak	Udehe	Sakha	Tyvan
'make'	*ta-ja-ŋ-ə-k* 'make a house'	*uŋta-ŋisi* 'make shoes'	*kïmïs-taa* 'make *kymys*'[1]	---
'give'			*xarčï-laa* 'give money'	---
'get'	*kajŋ-ə-ŋəjt-ə-k* 'hunt a bear'	*oloxi-ma* 'hunt a squirrel'	*kus-taa* 'hunt a duck'	*sug-la* 'ladle water'
'breed'			*sïmïït-taa* 'lay an egg'	*ool-da* 'give birth a child'
'use'	*timi-lʕet-ə-k* 'go with a raft'	*ǰogbo-lo* 'lance a fish'	*bïa-laa* 'tie with a rope'	*xiree-le* 'cut with a saw'
'remove'	*li-tve-k* 'put off gloves'	*kumugə-di* 'pick out lice'	*xax-taa* 'peel shells'	*kart-ta* 'peel shells'
'consume'	*caj-o-k* 'drink tea'		*čej-dee* 'drink tea'	*šay-la* 'drink tea'
Weather	*ano-juʕ-ə-k* 'become summer'		*ardax-taa* 'rain'	*ča's-ta* 'rain'
Occupation			*učuutal-laa* 'be a teacher'	*baškï-la* 'be a teacher'
'go'	*bolinica-jt-ə-k* 'go to hospital'		*žie-lee* 'go home'	*arga-la* 'go through woods'
'become'		*nii-nə* 'become a human'	*aččïk-taa* 'starve'	*bežen-ne* 'be fifty years old'

Note: ("---" means that there seems to be no such verbs, and a blank cell means that the author cannot find a suitable verb, but possibly there is)

Thus, Sakha and Tyvan are not considered to be polysynthetic with respect to the semantic categories of "lexical" affixes.

There is an interesting difference in deriving a verb from a noun stem among Koryak, Udehe, Sakha, and Tyvan (Table 3).

In Koryak and Udehe, there are several different denominal verbalizing affixes according to the meaning. For instance, Koryak employs the circumfix *ta- -ŋ* for 'make,' the suffix *-ŋəjt* for 'get,' and the suffix *-tve* for 'remove' (Kurebito 2017)[6]. Udehe also has a variety of verbalizing suffixes (Kazama 2010).

On the other hand, in Sakha and Tyvan, there is only a single verbalizing suffix

[6] According to Kurebito (2017), Koryak affixes have a subdivided meaning, rather than a broader one: 'get,' as in *-ŋel*/*-ŋal* for 'go gathering,' *-ŋta*/*-ŋəta* for 'fetch,' and *-ŋəjt* for 'hunt.'

(although they have several allomorphic forms due to the regular consonant assimilation and the vowel harmony rule). The meanings of the Sakha suffix *-laa* and the Tyvan equivalent *-la* have quite a wide range.[7]

The Sakha and Tyvan denominal verbalizing suffixes are rather "grammatical": They simply give a verbal property to a noun stem, and the verbal meaning is determined depending on the respective case.[8] Compared with them, the Koryak and Udehe denominal verbalizing suffixes are more "lexical" in that each of them has a particular lexical meaning according to the derivative verbs.

5. Syntactic derivation in Northeastern Eurasian languages and the lexical integrity hypothesis

As discussed in the previous section, Sakha and Tyvan are not considered polysynthetic according to Mattissen's (2004) definition. Instead, they have a distinctive derivational process that Ebata (2011) calls "syntactic derivation." This section illustrates the uniqueness of syntactic derivation in relation to the lexical integrity hypothesis.

Modern morphological theories propose the lexical integrity hypothesis, which posits a cross-linguistically applicable constraint that is formulated as "the syntax neither manipulates nor has access to the internal structure of words" (Principle of Lexical Integrity, Anderson 1992: 84). In other words, this hypothesis holds that syntactic rules operate only after morphological processes are completed. This is the view that morphology and syntax have their individual and independent systems in language, and it suits both traditional grammar and theoretical linguistics. In fact, identical views are found in such studies as Spencer (1991: 42), Lieber (2010: 184), Haspelmath and Sims (2010: 203), etc.

Derivation is one of the morphological processes. Therefore, from the point of view of the lexical integrity hypothesis, derivational processes cannot involve syntactic relation. However, many languages have a certain range of derivational processes that encompass syntactic relation, which are considered to be exceptions to the lexical integrity hypothesis. The Turkic languages Sakha and Tyvan also have plenty of examples of such type of derivational process that the author calls "syntactic derivation." Based on the discussion of Ebata (2018), this section provides some examples of syntactic derivation in Sakha and Tyvan, and it insists that the "mismatch" of morphology and syntax in syntactic derivation should not be regarded as exceptional.

There are well-known counter examples against the lexical integrity hypothesis,

[7] Interestingly, the Turkish cognate suffix *-la* cannot be used for the meaning 'go.' Turkic languages in the NE Eurasian area, especially Sakha, seem to have a denominal verbalizing suffix with a wider range of use.

[8] In Sakha, one denominal verb may have more than one meaning. For example, *žie-lee* 'house-VBLZ' may denote 'to go home' or 'to watch the house.'

known as the “bracketing paradox.” The bracketing paradox is problematic because, morphologically, a derivational affix is attached to the latter element; whereas, syntactically, the former element still modifies only the stem, not the entire word, of the latter element. (9) and (10) below are well-known examples of bracketing paradox, and (11) can also be regarded as a similar type.

(9) *transformational grammar-ian*
atomic scient-ist [Williams (1981), Spencer (1988)]

(10) *hard work-er*
heavy drink-er [Cinque (2010), Belk (2013)]

(11) *blue eye-d*
open mind-ed

English surely has some exceptions to the lexical integrity hypothesis. However, the counter examples are limited in terms of the syntactic relation and the parts of speech of the derivatives. Thus, the English derivation against the lexical integrity hypothesis can be formulated as follows.

> Types of exceptions to the lexical integrity hypothesis in English: The syntactic relation between the two elements is restricted to modification and the parts of speech of the derivatives are restricted to nouns or adjectives.

Ebata (2011) illustrates rich examples of syntactic derivation in Sakha, including nominalization and verbalization involving a syntactic relation. One of the examples of nominalization is (12). Literally, this example means ‘read a book-er’ — that is, an actor noun is derived from a verb phrase, but the verb stem still governs the accusative case. In other words, the base of deverbal derivation can also retain one of the verbal properties: government. No similar derivation is allowed in English.

(12) ***kinige-ni*** ***aaʁ****-aaччï*
book-ACC read-ACTOR
‘book reader’ (literally, ‘read a book-er’)

In (13), a verb is derived from a noun phrase containing modification. English also allows derivation that includes modification, as in (9)-(11), but the parts of speech of the derivatives must not be a verb. This example is also interesting in that the verbalizing suffix *-daa*, which is an allomorph of the suffix *-laa* given in the previous section, is attached after the plural suffix. This is also the distinctive property of syntactic derivation. The base of denominal derivation can also retain nominal properties: number,

in this case.

(13) *аʁа* *оʁо-lor-u* ***uhun*** ***kïmńïï-lar****-daa-ta*
father child-PL-ACC long whip-PL-VBLZ-PST:3SG
'The father gave the children long whips.' [Vinokurova (2005: 382)]

There are two other types of the Sakha syntactic derivation. One is the case of the wh-question. A noun phrase modified by an interrogative word can be the input of the syntactic derivation. At this time, the interrogative word still retains the wh-question function, and the derivative *xas оʁо-lo-n* 'to get how many children' keeps the function of an interrogative word.

(14) ***xas*** ***оʁо-lo-m-mut-u-n*** *ïjït-ïaxxa*
how.many child-VBLZ-REFL-VN.PST-3SG-ACC ask-IMP.1PL
'Let us ask how many children she got.'

The other is the case of total negation. Sakha total negation is the combination of an interrogative word, plus a clitic *=da* and the negation suffix. In (15), total negation is the input of the syntactic derivation. In derivation from a negative verb, although the negative suffix is morphologically a part of the derivational base, it still has a syntactic power to form complete negation, along with the preceding interrogative word.[9]

(15) ***xahan =da*** ***küörej-bet-tii*** *timir-en*
when =CLT rise.up-NEG:VN.PRS-SIM sink-CVB
'It is sinking as if it never rises up and ...'

All these derivational processes above are exceptional to the lexical integrity hypothesis. Thus, the Sakha derivation against the lexical integrity hypothesis can be formulated as follows.

> Types of exceptions to the lexical integrity hypothesis in Sakha: The syntactic relation between the two elements is not only modification but also government, wh-question, and total negation, and the parts of speech of the derivatives are both nouns and verbs.

Syntactic derivation is also produced in Tyvan. (16) is an example of denominal

[9] Although Tyvan also allows derivation from a negative verb, the negation suffix only conveys a negative meaning and cannot compose a total negation phrase, see Ebata (2015).

derivation creating a nominal stem.[10] In this example, like (13) of Sakha, the proprietive suffix *-lïg* is attached after the plural suffix.

(16) ***xöy*** ***urug-lar-lïg*** *iye*
many child-PL-PROP mother
'a mother having many children'

Tyvan also allows denominal verbal derivation that encompasses modification.

(17) ***süt-tüg*** ***šay-la***
milk-PROP tea-VBLZ
'to drink tea with milk'

(18) *ača-m* ***aldan*** ***xar-la-an***
father-POSS.1SG 60 year-VBLZ-PST
'My father became 60 years old.'

However, unlike Sakha, there is no syntactic relation other than modification in the Tyvan syntactic derivation. Thus, the Tyvan derivation against the lexical integrity hypothesis can be formulated as follows.

> Types of exceptions to the lexical integrity hypothesis in Tyvan: The syntactic relation between the two elements is limited to modification, and the parts of speech of the derivatives are both nouns and verbs.

Counter examples against the lexical integrity hypothesis are also found in Japanese. Kageyama (1993) and Kageyama (2016) show various examples of Japanese compounding and derivation that deviate from the lexical integrity hypothesis. The examples below, taken from Kageyama (1993: 326–331), are some cases of derivation.

(19) *daikigyoo =no* *syatyoo-**kyuu***
large.company =GEN president-class
' 'president of a large company'-class'

[10] In Sakha and Tyvan, nouns and adjectives show almost identical morphosyntactic characteristics and are quite difficult to distinguish. Therefore, this paper simply calls both nouns and adjectives "nouns" in Sakha and Tyvan.

(20) *arubaito =o* *si-**nagara***
part-time.job =ACC do-while
'while doing a part-time job'

(21) *haneda =o* *ririku-**go***
Haneda =ACC take.off-after
'after taking off the Haneda airport'

The present author of this paper largely divides the Japanese independent words into two classes: nominals that do not inflect and verbals that do inflect.[11] The derivatives of (19)-(21) are all nominals. In (19), the derivational process encompasses modification and in (20) and (21), government.

Japanese also allows verbal derivation involving government. In (22), the passive suffix is attached to a verb phrase containing a governed accusative NP. Similar derivational processes are also possible by the negative *-na-i*, the volitive *-ta-i*, the speculative *-soo-na*, habitual *-gaci-na*, and so on.

(22) *mizu =o* *kake-**rare**-ta*
water =ACC pour-PASS-PST
'be squirted with water'

(23) *namae =o* *kaka-**na**-i*
name =ACC write-NEG-PRS
'not to write the name'

(24) *hito =o* *korosi-**soo**-na*
person =ACC kill-seem-ADN
'seeming to kill a person'

Thus, the Japanese derivation against the lexical integrity hypothesis can be formulated as follows.

> Types of exceptions to the lexical integrity hypothesis in Japanese: The syntactic relation between the two elements is both modification and government, and the parts of speech of the derivatives are both nominals and verbals.

[11] The division into nominals and verbals, rather than into smaller classes in the traditional grammar of Japanese, is also found in Kato (2008).

Thus far, we have examined exceptions to the lexical integrity hypothesis in English, Sakha, Tyvan, and Japanese. The counter examples reveal that they cannot be said to be exceptional. Rather, all four languages allow for some extent of exceptions to the lexical integrity hypothesis. Particularly, noun derivation involving modification is the type that all four languages have. The author does not consider the lexical integrity hypothesis as a cross-linguistically universal constraint. Rather, we must suppose that derivational processes can encompass syntactic relation to some extent. However, the possible range of syntactic derivation is language specific. The possible types of exceptions for the lexical integrity hypothesis are summarized in Table 4.

Table 4. Types of exceptions to the lexical integrity hypothesis

	syntactic relation	parts of speech
English	modification	nouns, adjectives
Sakha	modification, government, wh-question, total negation	nouns, verbs
Tyvan	modification	nouns, verbs
Japanese	modification, government	nominals, verbals

Syntactic derivation is puzzling if we simply assume that in language, first words are created in morphology and then aligned in syntax. However, in languages with syntactic derivation, at least partially, morphology can override syntax, and morphological process can be applied after syntactic rules function.

There is another morphological process that apparently shows a preference over syntactic relation. Turkish and Tyvan exhibit so-called "suspended affixation," in which a single morpheme can scope over the whole of a coordinate construction.[12]

Turkish [Kabak (2007: 335)]

(25) *ev* *ve* *dükkan-**lar-da***
house and shop-PL-LOC
'in houses and shops'

Tyvan

(26) *šugum* *balaaš* *kïdïraaž-**ïŋ*** *sumka-ga* *četčele-p* *al*
ruler eraser notebook-POSS.2SG bag-DAT fulfill-CVB AUX:IMP.2SG
'Put your ruler, eraser, and notebook into your bag!'

[12] Interestingly, three Turkic languages show differences in the possibility of suspended affixation. In Turkish, both nominal and verbal coordinate constructions can be marked by a single morpheme. In Tyvan, suspended affixation is possible only in the case of nominal constructions. In Sakha, suspended affixation is entirely impossible.

Conversely, “a transitive verb always requires an accusative NP,” or “the gender of an adjective must agree with that of the noun” are the typical cases in which syntax overrides morphology. If we assume that syntax always overrides morphology, syntactic derivation and suspended affixation should be regarded as exceptions. However, the author insists that the scope of dominance by morphology and syntax is language specific, and consequently, the applicable range of syntactic derivation is also different from language to language.

6. Conclusion

This paper first provided a brief overview of the definitions and properties of morphological units and morphological typology. The paper then considered whether the two Northeastern Eurasian languages Sakha and Tyvan are polysynthetic. Sakha and Tyvan surely have polymorphemic words and some lexical affixes, but they are not of the semantic categories that are regarded as typical in Matissen’s (2004) criteria. The denominal verbalizing suffixes of Sakha and Tyvan are rather grammatical in that they simply give a verbal property to a noun stem. This nature is clearly understood when compared to the denominal verbalizing suffixes of Koryak and Udehe because each of them has a particular lexical meaning.

Sakha and Tyvan, as well as Japanese, show richness in derivation, particularly in syntactic derivation, that are exceptional against the lexical integrity hypothesis. The lexical integrity hypothesis should not be considered a cross-linguistically universal constraint. Rather, we must suppose that derivational processes can encompass syntactic relation to some extent, and the possible range of syntactic derivation is language specific. In languages, at least partially, morphology may override syntax, and morphological process can be applied after syntactic rules function. Suspended affixation is another case in which morphology overrides syntax.

Abbreviations

ACC: accusative, ACTOR: actor nominalization, ADN: adnominal form, AUX: auxiliary verb, COP: copula, CVB: converb, DAT: dative, DIR: directive, GEN: genitive, HON: honorific, IMP: imperative, LOC: locative, NEG: negation, PL: plural, POSS: possessive, PROP: proprietive, PRS: present, PST: past, REFL: reflexive, SG: singular, SIM: similative, VBLZ: verbalizing, VN: verbal noun

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Summary

This paper first provides a brief overview of the definitions and properties of morphological units and morphological typology. The paper then considers whether the two Northeastern Eurasian languages, particularly the two Turkic languages Sakha and Tyvan, are polysynthetic. Sakha and Tyvan surely have polymorphemic words and some lexical affixes. However, the number of morphemes a word can contain is not diagnostic of polysynthesis. Lexical affixes in these languages are not of the semantic categories that are regarded as typical in Matissen's (2004) criteria. The denominal verbalizing suffixes of Sakha and Tyvan are rather grammatical in that they simply give a verbal property to a noun stem. Sakha and Tyvan, as well as Japanese, show richness in derivation, particularly in a distinctive derivational process that the author calls "syntactic derivation." In the syntactic derivation in these languages, the derivational processes can encompass syntactic relations, such as modification, government, wh-question, and total negation. In this respect, the lexical integrity hypothesis should not be considered a cross-linguistically universal constraint. Rather, we must suppose that derivational processes can encompass syntactic relation to some extent, and the possible range of syntactic derivation is language specific. The author insists that in languages, at least partially, morphology may override syntax, and morphological process can be applied after syntactic rules function. Suspended affixation is another case in which morphology overrides syntax.

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