ASPECT MARKERS GRAMMATICALIZED FROM VERBS IN KAMAS

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Abstract

The article presents some results of research into aspectual auxiliaries of Kamas (Southern Samoyed; extinct). Code-copied from Turkic, Kamas started to use verbs with salient aspectuality to modify the aspectual meaning content of another verb or the representation of a whole state of affairs. The formal means by which this modification could take place was a converb construction, in which the modified main verb figured as the non-finite verb form (the converb). At the end of the grammaticalization process, some of the auxiliaries ended up as suffixes. Within Kamas sources from the middle of the 18th to the beginning of the 20th century, the various degrees of grammaticalization are documented. The relevant grammaticalization processes are semantic reduction, fixation and formal reduction; the first two processes can be understood as prerequisites for the third process which puts an end to the coexistence of grammaticalized and non-grammaticalized items. The main Kamas auxiliaries are listed and, according to their function, grouped into non-transformative vs. initial-, final-, and momentaneous-transformative auxiliaries.

In Kamas sources, one can observe a multi-stage grammaticalization pattern in which full verbs turned into aspectual auxiliaries as a first step, and then into aspectual suffixes. In older sources on Kamas, especially Castrén (1847), most auxiliaries still occur in their full form, cf. also Schiefner (1854). Some 65 years later, Donner (1912/1914) found a few auxiliaries that are better taken to be aspectual suffixes. The use of Kamas aspectual auxiliaries is an instance of code copying from neighbouring Turkic languages, especially Hakas; the further development of suffixalization is an internal development in Kamas.2

1 Kamas is a Southern Samoyed language that was still spoken in the early twentieth century by approximately 50 people on the northern side of the Eastern Sayan Mountains. In Abalakova, their last village, Castrén (1847) and Donner (1912/1914) collected language data. Kamas had been strongly influenced by Turkic languages for centuries but its last speakers shifted to the use of Russian.

2 The Kamas system of auxiliaries replaced an earlier system in which aspect had been marked by endings inherited from Proto-Samoyed. That system can be
In what follows, the two main steps of that grammaticalization process will be discussed, along with the major auxiliaries and aspectual suffixes, respectively.

1. First, we have to mention the syntactic device that constitutes a link between the auxiliary and the main verb it modifies. This device is known as *converb construction* involving the general Kamas converb *-LA?.* Converbs are non-finite verb forms that are in an adverbial relationship with another verb form. The term ‘converb’ can be replaced by ‘adverbial participle’, ‘gerund’, or Russian *deeprichastie*.

Converb constructions are in principle multifunctional, i.e., their exact meaning depends on context.³ In (1), there are two events of which one precedes the other:

(1) šaškan mola? ńergoli?bijo?  
magpie become.cv fly.inch.past.3pl

‘Turning into magpies, they [the ghosts] flew away.’ (‘After they had turned into magpies, the ghosts flew away.’ or ‘The ghosts turned into magpies and flew away.’)

(Joki 1944, 98: šaškan mñańergu’u’ibi; Klumpp 2002, 120)
The connection between the two events can often be interpreted as purpose (2) or cause (3):

(2) ijabo pele? kambi
    mother.acc.3sg search.cv go.away.past
    ‘He left looking for his mother.’ (‘He left in order to look for his mother.’ or ‘He left to look for his mother.’ or ‘He left and looked for his mother.’)
    (Joki 1944, 197: jäh’ p’ele kämbi; Klumpp 2002, 122)

(3) mazarogan mändola? dī ne ba?lu?bi bissitta
    smoke-hole.loc see.cv this woman stop.mom.past drink.inf.lat
    ‘Seeing [the man-eater] in the smoke-hole, the woman stopped drinking.’ (‘Because she saw the man-eater in the smoke-hole, she stopped drinking.’)
    (Joki 1944, 90: mävezrōγan mändola dī ne bāsubi ḫsitti; Klumpp 2002, 121)

As can be seen in (3), other items may intervene between the converb and the finite verb. According to the unmarked word order, the converb precedes the finite verb, but the inverse order is also possible, as in (4):

(4) män ej timmem āndala?
    I not know.pres.1sg write.cv
    ‘I cannot write.’
    (Joki 1944, 196: man eį tımčem pīndlā; Klumpp 2002, 123)

2.1. The posterior constituent of such a construction can also be an aspectual auxiliary. In that case, word order is not free: the auxiliary invariably follows the converb and no other material can intervene. This phenomenon is referred to by Lehmann (1995, 158) as ‘fixation’, a process whereby ‘syntagmatic variability’ is reduced.

A frequently occurring auxiliary is iʔbs whose main-verb meaning is ‘lie’. The function of that auxiliary is marking imperfective aspect. In the next example (5), coming from Castrén’s material, the auxiliary picks one of the two possible meanings of the verb nu (perfective ‘stop’ and imperfective ‘stand’).

A purpose or cause reading of this construction, as in (2) and (3), would be highly curious: ‘I stand in order to lie’, ‘I stand because I lie’. Its temporal reading, as in (1), would be possible (‘I stand, then I lie’) but Castrén’s gloss ‘cʒro̞’ does not suggest this. We can conclude that the verb ‘lie’ does not occur here in its original meaning but as an auxiliary (see 2.2. for details on its function). At this stage of grammaticalization,
(5) nula? i?bam
stop/stand.cv lie\(^5\).aor.1sg
'I am standing.' (Literally: 'I lie standing.')(Castrén 1847, 115: nula 'i'bym; Klumpp 2002, (45a))
it is impossible to decide whether the posterior constituent of the converb construction is an auxiliary or a full verb except on the basis of semantic criteria. This is because formally the two verb forms are not distinct, see (6) where the posterior constituent of the converb construction, i?b\(\hat{o}\) 'lie' is a full verb:

(6) tăn kăd\(\hat{o}\) mola? i?b\(\hat{o}\)
you how become.cv lie.aor.2sg
'Why are you lying here?'
(Joki 1944, 99: tăn kăd\(\hat{o}\) m\(\hat{o}\)la' ˘ ı'` p\(\hat{o}\); Klumpp 2002, 68)

It is a widely known phenomenon in grammaticalization research that grammaticalized and non-grammaticalized forms, respectively the old and the new use, survive side by side. This phenomenon is called **split** by Heine–Reh (1984, 57), and **divergence** by Hopper–Traugott (1993, 116–20).\(^6\)

### 2.2. The function of the auxiliary ‘lie’ in (5) is to select the imperfective meaning (‘stand’) of the verb nu ‘stop/stand’.

It has a similar function in (7) where it is in construction with the verb tu?b\(\hat{o}\) ‘row’. That biaspectual stem has two meanings: semelfactive ‘perform one stroke’ and iterative ‘perform several/many strokes’. The auxiliary selects the imperfective (iterative) meaning:

5 **SMALL CAPITALS** in glosses indicate that the verb occurs here as an auxiliary, rather than in its full meaning.

6 Unfortunately, the Kamas sources do not give relevant information concerning stress. Still, it seems to be fair to assume that the auxiliary construction had a different stress pattern. At least in Turkic languages, such difference can be found (cf., e.g., Demir 1993, 74).
In short, the function of the auxiliary ‘lie’ is to mark an event as an unbounded situation. The meaning of the verb ‘lie’, on the other hand, can be described as “a body is positioned on a base such that a larger part of the former touches the latter and it is likely that no change of that position will occur for a while”. Of these meaning components, “no change” is important for imperfective aspect. The verb ‘lie’ can transfer that inherent aspectual property onto the whole event described in the converb construction. Another component of its meaning, “a larger part of the body touches the base” is unimportant, indeed disturbing. In order for the verb ‘lie’ to turn into an aspectual auxiliary, it is not only required for it to contain the relevant meaning component but also for its non-appropriate meaning components to fade. This can be called semantic reduction. The grammaticalized auxiliary will not be called “semantically reduced verb” but rather “semantically reducible verb” here, given that it may retain some other meaning components unreduced. Schöning (1984) speaks of “full verb meaning transfer” with respect to Tatar auxiliaries; cf. (8) where the meaning ‘lie’ is not incompatible with the meaning ‘sleep’ of the main verb, yet Castrén’s gloss shows that the verb ‘lie’ occurs here in its auxiliary role:

(8) kunolla? i?bom
sleep.cv lie.aor.1sg
‘I am sleeping’ (Literally: ‘I lie sleeping.’)
(Castrén 1847, 186: kunolla’i’bym; Klumpp 2002, (44a))

2.3. In addition to i?bə ‘lie’, the items anmə ‘sit’, nu ‘stand’, kandə ‘go’ and min ‘go’ also occur as imperfective auxiliaries, marking durative, fre-

7 Another example involving the verb sa?mə ‘fall’ expressing momentaneous aspect is as follows. In the first sentence, the original meaning has completely faded away, whereas in the second, it may have been retained:
(i) tı nükke korola? sa?mabi
‘This woman got angry [“fell angry”]’ (Joki 1944, 197; Klumpp 2002, (534))
(ii) nuna lábola? sa?mabi
‘A rocky wall collapsed [“fell collapsing”]’ (Joki 1944, 85; Klumpp 2002, (535))

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quentative, iterative, or habituative aspect readings (aktionsarten). The function of perfective auxiliaries, on the other hand, is to indicate that the event involves a definite change of situation. This can be entering a situation (ingressive and inchoative aktionsarten), leaving a situation (egressive and resultative aktionsarten), or crossing both borders at once (momentaneous aktionsart). These three subgroups will be called, following Johanson (1971) and Schöning (1984), initial-transformative, final-transformative, and momentaneous-transformative, respectively, whereas the imperfective group will be referred to as non-transformative.

Let us mention two examples of the perfective group. The first is the opposite of the imperfective (5) above. Here, the auxiliary kan- whose full verb meaning is ‘go away’, selects the perfective meaning ‘stop’ of the biaspectual verb nu- ‘stop/stand’.

(9) inet nula? kambi
horse.3sg stop/stand.cv GO.AWAY.past
‘His horse stopped.’ (Literally: ‘His horse went stopping.’)
(Joki 1944, 92, inet nusambi; Klumpp 2002, (440a))

Apart from kan-, final-transformative auxiliaries also include šo- ‘arrive’, kun- ‘lead away’ and ba?bdo- ‘throw away’; initial-transformative auxiliaries are u?bdo- ‘stand up’ and kajo- ‘stay’. The use of the momentaneous-transformative auxiliary sa?mo- ‘fall’ can be exemplified as in (10):

(10) Ket’t’un gùd’or […] u?la? sa?mobi
Ket’t’un gùd’or stand.up.cv FALL.past
‘K.g. jumped up.’ (Literally: ‘K.g. fell standing up.’)
(Joki 1944, 95: két ‘sün-gud’ur […] u’la sa’mobi; Klumpp 2002, (532))

3.1. The grammaticalization of some Kamas auxiliaries stopped at the stage at which there is no formal difference between the original main verb and the auxiliary. Other verbs, like ‘lie’, went through further development whereby they changed not only in their meaning but also in their form. In the case of ‘lie’, the result of formal reduction is the following ((11a) = (5)):
In all three examples, the same derivation is seen, with an important difference. The first example has four syllables and comes from Castrén’s material collected in 1847. The second and third examples, however, were recorded by Donner in 1914, and consist of only three syllables. Hence, formal reduction resulted in the diminution of syllable count, a process that initiates what Heine and Reh (1984, 21) refer to as erosion: “bisyllabic > monosyllabic > simple consonant/vowel > germination > tonal/stress rule”. Lehmann (1995, 126) calls this type of grammaticalization “phonological attrition”, the relevant parameter being “integrity”. Bybee et al.’s (1994, 19) hypothesis says that “semantic reduction is paralleled by phonetic reduction” (emphasis mine, G.K.). In the case of Kamas auxiliaries, as we saw, there are semantically reduced verbs that are formally non-reduced. The converse situation does not arise. Therefore, it is better to say that semantic reduction is a prerequisite for formal reduction.

### 3.2. Which items undergo formal reduction?

It is not the whole auxiliary that changes: only its stem does. But the change does not merely concern the stem of the auxiliary—it also affects the ending of the converb before it.

\begin{align*}
(12) \text{nu+la?#} & \rightarrow \text{nu+la?bo+m} \\
\text{stand+cv} & \rightarrow \text{stand+lie+1sg} \\
\text{Lex}_a + \text{Gram}_a & > \text{Lex}_b + \text{Gram}_b \\
\end{align*}

More exactly, it is not only the verb ‘lie’ that is grammaticalized: it is the verb ‘lie’ and the ending of the converb that are grammatical-
ized together. Bybee et al.’s (1994, 4–5) definition of grammaticalization reads like this: “…grammaticalization theory begins with the observation that grammatical morphemes develop gradually out of lexical morphemes or combinations of lexical morphemes with lexical or grammatical morphemes” (emphasis added, K.G.).

3.3. Of course, there are some morphosyntactic consequences of this change: one is the loss of word status by the auxiliary. In a converb construction, syntactically, the auxiliary is the main verb, whereas semantically the non-finite verb is the main verb. After formal reduction, the original auxiliary ceases to be a separate word; rather, its stem merges with the converb ending into a new, complex suffix. The change does not extend to other morphological information like tense, person, or number. That information continues to be represented after the segment that used to be the stem of the auxiliary. But the new carrier of that information is now the original non-finite main verb that has turned into a finite verb with the suffix(es) of the former auxiliary, thus becoming a main verb syntactically, too. The rest of the converb ending does not signal word boundary any more but becomes the initial portion of a new, complex suffix. Since all auxiliaries were grammaticalized on the basis of the general LA? - converb, formal reduction has yielded a new, L-initial class of aspectual suffixes. These new aspect markers occupy the position of the inherited valence suffix and the tense/mood suffix in the word, as shown by (13):

(13) dî sıkt-ö-lâm-bi  (< sîktö? kambi)  
   he strangle.intr.aspect.past  (< strangle.intr.cv go.away.past)  
   ‘He hanged himself.’  
   (Joki 1944, 58b: dî sîktolâmbi; Klumpp 2002, 286)

The result of the increase in “coalescence” or “boundedness” (Lehmann 1995, 148), i.e., the suffixalization of the former auxiliary, can be clearly seen from the change of vowel harmony pattern, see (14) where back-harmonic amna ‘sit’ turned front-harmonic as an auxiliary:

(14) dî sı?bdöbi gîjɛn bû bejîlenné  (< bejle? amna)  
   he wake.up.past where.loc river cross.imperf.aor  (< cross.cv sit.aor)  
   ‘He woke up where they cross the river.’  
   (Joki 1944, 98: dî sıwbdöbi gîjɛn bû bejîlnæ; Klumpp 2002, (33))
The loss of word status has not only phonological but also syntactic criteria; see (15) where the original intransitive verb *amn- 'sits' is grammaticalized to the extent that it may receive an object-conjugation marker that would have been ungrammatical earlier:

(15) pan tabonda ularzaŋdə t’abolamn̄ot (< t’abola? *amn-+t)
    tree.gen trunk.loc.3sg sheep.pl.3sg keep.imperf.aor.3sg.def
    (< keep.cv sit.aor.3sg.def)
    ‘She is [sitting and] keeping her sheep at the trunk of the tree.’
    (Joki 1944, 95: p’an tābɔnda, uλārzaŋdə t’abolamn̄ed; Klumpp 2002, (20))


   (16) (a) phālæbaábdewiām ‘I put it down’
   (b) mæŋ kuyxaṿ biðom ‘I killed it’
       (Donner, cf. Klumpp 2002, (370d))
   (c) sublaábdewiam ‘I scooped it’
       (Castrén, cf. Klumpp 2002, (349))
   (d) d’āy̕ án kūnna biiy̕ om ‘I caught sight of the river’
       (Donner, cf. Klumpp 2002, (377c))

Table 1 below summarises the results of formal and semantic reduction of twelve Kamas verbs. In the fifth column, formally reduced formations can be seen. Here (if not earlier) we have to do with a formally and functionally homogeneous paradigm, due to “paradigmaticization” (Lehmann 1995, 135).

5. It becomes clear from the table that the degree of grammaticalization among Kamas auxiliaries is not uniform. In my view, it is unlikely that this has purely phonological reasons: if, for instance, the *k of kan-
**Table 1**
Semantic and formal reduction of Kamas aspectual auxiliaries

<table>
<thead>
<tr>
<th>ASPECT READING</th>
<th>AUXILIARY SUBCLASS</th>
<th>SEMANTICALLY REDUCIBLE AUXILIARIES</th>
<th>FORMAL REDUCTION</th>
<th>DERIVATION &gt; CONJUGATION</th>
</tr>
</thead>
</table>
| IMPERFECTIVE   | Durative, frequenta-tive, iterative and habitive aktionsarten | Non-transformative stative auxiliaries | \textit{amn}ν- ‘sit’ \textit{iʔba}ν- ‘lie’ \textit{nu}- ‘stand’ | > -\textit{LAmn}ν- > -\textit{LA}ʔba- \_
|                |                    | Non-transformative dynamic auxiliaries | \textit{kanda}ν- ‘go’ \textit{mīn}- ‘go’ | > -\textit{LAnda}ν- \_
| PERFECTIVE     | Inchoative and ingressive aktionsarten | Initial-transformative auxiliaries | \textit{uʔbd}aν- ‘stand up’ \textit{kojo-} ‘stay’ | > -\textit{LU}(bd)aν- \_
|                | Resultative and egressive aktionsarten | Final-transformative auxiliaries | \textit{kan}ν- ‘go away’ \textit{so}- ‘arrive’ \textit{kun}- ‘lead away’ \textit{baʔbd}aν- ‘throw away’ | > -\textit{LAN}- \_
|                | Momentaneous aktionsart | Momentaneous-transformative auxiliaries | \textit{saʔm}aν- ‘collapse’ | \_

can disappear, why that of \textit{kun-} cannot? Or, if \textit{b-} can be dropped from \textit{baʔbd}aν, why is it that \textit{m-} cannot be dropped from \textit{mīn}? Hence, the question arises whether we have to do with a unitary derivation of aspects at all, or whether there is a correlation between the two stages of grammaticalization and the two functions. In his well-known definition, Kuryłowicz (1965/1975, 52) points out that “grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g., from a derivative formant to an inflexional one” (emphasis added, G.K.). The more highly grammaticalized aspectual auxiliary ‘lie’ occurs very frequently in Kamas texts. Interestingly, it never occurs in
the past tense, only in unsuffixed aorist. The Hakas (Turkic) verb for ‘lie’, čat-, has been grammaticalized to present tense, -(p)čA (e.g., Anderson 1998, 25; Johanson 1995, 93). From this, it might be concluded that the suffix -LA?bə- in Castrén’s and Donner’s sources already corresponded to the present, past, and future markers, and belonged to the paradigm of each verb, e.g., in the case of nu- ‘stop/stand’:

(17) Present: nu-ga-m  
Imperfective present: nu-la?bə-m  
Future: nu-la-m  
Past: nu-bja-m

If -LA?bə- is indeed a kind of present tense marker, we would expect it to exist in negative forms, as well, given that Hakas present tense also has a negative version (see e.g., Anderson 1998, 45; Baskakov–Borgoyakov 1975, 202). However, in Kamas sources, -LA?bə- is not found in negative forms. This may be due to mere chance, but it is also possible that -LA?bə- is still a marked aspectual form that has no negative counterpart because the aspectual modification concerned is only relevant if the event actually takes place (Klumpp 2001, 124). I think the grammaticalization of -LA?bə- for present tense was under way when the extinction of Kamas in the first half of the twentieth century put an end to that change.

6. Certain conclusions can be drawn from the grammaticalization of Kamas auxiliaries, even if these are not entirely new insights within grammaticalization research: in order for a lexical item to assume grammatical function, an appropriate meaning component is required (2.2). Its disturbing meaning components may fade away, but its original meaning may also survive (2.2). The semantic reduction of the item undergoing grammaticalization and the fixation of its position within the syntagm (2.1) are prerequisites for formal reduction (3.1). Formal re-

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9 It is true that it may also occur in the present or future tenses. In these cases, its function is inchoative-transformative (Klumpp 2002, 202), e.g.,

dī bazo? sūna pā?la?balje
he again fire-lat sink.inch.tf.pres
‘He sinks into the fire again [and stays in it].’
(Donner 8:IX, d‘ bāzū šuñu po‘lābli; Klumpp 2002 (108))

10 -(p) is the original converb ending that only survived postvocally.

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duction puts an end to the coexistence of grammaticalized and non-
grammaticalized item. The deletion of the formal means of gramma-
ticalization (3.2) restores the balance between syntax and semantics (3.3).
Formal reduction does not take place in a unitary manner (4) and fur-
ther grammaticalization can remove certain items from the paradigm of
grammaticalized items (5).

To finish with, let us say a few words about the frequency of Ka-
mas aspectual auxiliary constructions. This can be illustrated by Don-
ner’s Tale 8 (Joki 1944, 94–9) in which 120 finite verbal predicates are
found of which 41, or 34%, are aspectual converb constructions (Klumpp
2002, 330). This suggests that aspectual auxiliaries cannot be taken to
represent a marginal phenomenon; rather, they must have played a cen-
tral role in the Kamas verbal system.

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