

Grammaticalized verbs in Hayu

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1. INTRODUCTION¹

This paper aims to discuss the development of grammaticalized verbs (GV henceforth) of Hayu, one of the Tibeto-Burman languages that belong to the Bodic branch (Michailovsky 1988), from the viewpoint of current grammaticalization theories (e.g. Hopper 1987; Bolinger 1980; Heine et al. 1991a,b; Heine 1992, 1993; Hopper and Traugott 1993). GVs are a common characteristic of Tibeto-Burman languages (DeLancey 1991; Matisoff 1969, 1991; Smeall 1976; Lehman 1986; Park 1993, 1994). The development of GVs in Hayu is of particular interest in the study of the grammaticalization of verbs in Tibeto-Burman languages, because it provides the basis for comparison between languages like Hayu that have complex verbal morphology and complicated agreement paradigms and those that do not, for example, Burmese.²

It will be shown that as in other Tibeto-Burman languages, in Hayu GVs originated from two sources, clause chain constructions and complement clause constructions.

2. DESCRIPTIVE PRELIMINARIES

As a preliminary to a detailed discussion of GVs, the clause structure of Hayu is presented.

2.1. Simple clause structure

Hayu is an SOV language but the word order is not strict. The variable order seems possible because of the obligatory agreement marker on the verb. The agreement marker is a portemanteau that also conveys tense in addition to indexing the participant(s) involved. Hayu is an ergative language. The ergative marker is *ha*; absolutive does not have a phonetic realization. This section describes the structure of simple clauses.

In intransitive clauses, the subject is in the absolutive case and the verb agrees with the subject:

¹ I would like to thank Scott DeLancey and Tom Givón for their valuable comments and criticism on earlier versions of this paper. The data for this paper are from Michailovsky (1988).

² See Park 1993, 1994 for a detailed discussion of GVs in Burmese.

- (1) nukun le gu itha bela na phi:-ro-mi
 tomorrow also 1SG.ABS same time EMP come-1SG.NP-ASS³
 'I will come tomorrow at the same time.'
- (2) aba aŋ xwaptso met-Ø
 now my spouse die-3SG.NP
 'Right now, my wife is on the verge of dying.'

In transitive clauses, the subject is ergative and the direct object is in absolutive form. The verb agrees with both the subject and the object:⁴

- (3) ga thurŋ-no-mi gon
 1SG.ERG take-1SG→2SG.NP-ASS 2SG.ABS
 'I will take you.'
- (4) gu tsu-ha ko-surŋ-mi
 1SG.ABS thorn-ERG prick-3SG→1SG.P-ASS
 'I was pricked by a thorn.'

In ditransitive clauses, the subject is in the ergative case. The recipient indirect object precedes direct object and both of them are in absolutive form. But the verb agrees with the recipient indirect object/BEN, not with the patient direct object:

- (5) ga gon pipira mɔm-no-m
 1SG.ERG 2SG.ABS bread give.to.eat-1SG→2SG.NP-ASS
 'I give you bread.'
- (6) uxpu-ha a-ta:wo cu?wa-khata cup-to-m
 father-ERG his-son clothes-PL put.on-3SG→3SG.P-ASS
 'The father dressed his son with the clothes.'

³ Abbreviations used in examples are as follows:

ABS : absolutive	IMP : imperative
ADV : adverbial	INC : inclusive
ASS : assertive	IRR : irrealis
APPL : applicative	NEG : negation
BEN : benefactive	NP : non-past
COMP: complementizer	P : past
CLS : classifier	PL : plural
DEM : demonstrative	POSS: possessive
EMP : emphatic particle	REFL: reflexive
ERG : ergative	REL : relative clause marker
EXC : exclusive	SG : singular
HUM : human	TH : theme

⁴ The arrow in the gloss for the agreement morpheme indicates the direction of action. For example, 1SG→2SG means that 1st person singular is acting upon 2nd person singular.

- (7) ga gon tso puk-no-m
 1SG.ERG 2SG.ABS child get.up-1SG→2SG.NP-ASS
 'I get the child up for you.'

In reflexive clauses, the subject and object are coreferential and the subject is in absolutive form:

- (8) mi top-tse
 3SG.ABS hit-3SG.REFL.P/NP
 'He hit himself.'

2.2. Complex clause structure

In this section, we present a description of the clause chain construction and the finite complement clause construction.

2.2.1. Clause chain construction

Hayu has several subordinators that indicate different semantic relations of the adverbial clause to the main clause. Since Hayu is a verb final language, the adverbial clause precedes the matrix clause. The verb preceding the subordinator is non-finite and the main verb carries all the inflection. Three subordinators seem to be functionally equivalent to so-called non-final markers: they convey temporal succession; a series of clauses can be connected by them; and there is asymmetry in finiteness between medial clauses and the final clause (cf. Longacre 1985, Givón 1990). For these reasons, I will call these 'non-final markers' although they are not formally different from other subordinators, and the construction which has clauses connected by these markers the 'clause chain construction'.

In the following sections, we describe the clause chain construction with each non-final marker.

2.2.1.1. The non-final marker *ha*

The non-final marker *ha* indicates temporal succession. The verb preceding it is reduplicated.⁵ In the second sentence of (9), three non-final clauses connected by *ha* are non-finite and only the final verb *piri*⁶ is finite. Also, all the clauses share the same subject:

⁵ In the reduplication, if the verb root does not have a coda consonant, the whole root is reduplicated. But if its final consonant is /t/ or /n/, it is dropped in the reduplication. With other coda consonants, either the whole root or the root without the coda consonant is reduplicated.

⁶ It is realized as *pti*: by a phonological process that operates at the boundary between verb root and verbal suffix.

- (9) *mii sabai-janā totop-ha tox-tome.*⁷
 DEM all-HUM beat-NF chase-3SG→3PL.P
 totop-ha totot-ha nontalik mumut-ha
 beat-NF chase-NF quietly sit-NF
 mi wol-ta xwan-xwan dza pī:-ko
 DEM decrepit-NOM full eat allow-3SG→3SG.P
 'He beat them and chased them. Having beaten them, and chased them,
 he sat quietly and made the decrepit (bird) eat his fill.'

In (10) below, which is from a narrative, eight clauses are marked with *ha*:

- (10) *kem-noŋ thoŋthoŋ-ha me dupdup-ha*
 house-to bring-NF fire light-NF
kharkunda-noŋ ti tsu?tsuk-ha me lagāi-ha
 cauldron-in water put.to.cook-NF fire set-NF
me gurudugut du?dup-ha timsit tsu?tsuk-ha
 fire crackling light-NF exactly put.to.cook-NF
ka:muŋ thi?thik-ha khilsinŋ tsinŋtsinŋ-ha
 door shut-NF bar put-NF
lei thi la?natshe-m ix-tse
 millet grind go-3D.P-ASS say-3.REFL
 'They brought it to their house, made fire, and put water in a cauldron.
 After making a crackling fire, they put water in the cauldron, shut the
 door, blocked it with a bar, and then went to grind millet.'

2.2.1.2. The non-final marker *noŋ*

The non-final marker *noŋ* also indicates temporal succession, but the verb preceding *noŋ* is not reduplicated:

- (11) *sin pa la?-noŋ ban-noŋ bilu ux-totshe-m*
 wood do go-NF forest-in tiger meet-3PD→3.P-ASS
 'They went to gather wood and met a tiger in the forest.'
- (12) *phi?-noŋ phi?-noŋ phi?-noŋ minor na doŋ-Ø*
 come-NF come-NF come-NF here EMP arrive-3SG.P
 'He came and came and came, and arrived here.'

According to Michailovsky, the clause marked by *noŋ* might not share a subject with the final clause while non-final clauses marked with *ha* share the same subject with the final clause in most cases. In the example below, the subject of *bu* 'carry' and *cuŋ* 'carry.up' is 'she', but the subject of the final verb, *su*: 'scratch' is 'tiger':

⁷ Loanwords from Nepali are italicized in the examples from now on.

- (13) *nikai wonoŋ-boŋ bu:bu-ha cuŋ-noŋ su:-ko-m*
 much high-up.to carry-NF carry.up-NF scratch-3SG→3SG.P-ASS
ix-tse bilu-ha
 say-3SG.REFL tiger-ERG
 'Since she carried him up very high, carrying him, the tiger scratched her.'

2.2.1.3. The non-final marker *nana*

The non-final marker *nana* indicates continuous or repeated action:

- (14) *mithe-noŋ ko dinekal dzok-nana syāl-ha*
 then TH daily come-NF jackal-ERG
dza:-ko-m are du-nana dza-nana
 eat-3SG.P-ASS it.is.said dig-NF eat-NF
 'Then everyday the jackal came and ate, it is said, digging (taros) and eating (them).'

2.2.2. Complementation

This section presents the complement clause construction. A finite complement clause is usually marked by a complementizer *pa/paha* and the verb carries all verbal inflections, including agreement-tense and speech act markers. But the complementizer is omissible as in (15). Verbs such as *si* 'know' and *ix* 'say' take this type of complement:

- (15) *mi xuŋbuwo no-Ø ki go:luwo no-Ø ga*
 DEM Tamang be-3SG.NP or Magar be-3SG.NP 1SG.ERG
ma si:- kok
 NEG know-1PE→3.NP
 'We do not know whether he is a Tamang or a Magar.'
- (16) *mi-ha ko mi, su:li thamji-ha ko dzamma*
 3SG-ERG TH DEM bran merchant-ERG TH all
si:-ko ine ine no-Ø-m paha
 know-3SG→3SG.P here here be-3SG-ASS COMP
 'The bran merchant, he knew where everything was.'
- (17) *aŋ kem-he la-tshik samdhini paha*
 1SG.POSS house-in go/visit-2DI.IMP parents COMP
bu:mi pixpi-ha ix-to-m
 Bhumi grandmother-ERG say-3SG→3.P-ASS
 'Grandmother Bhumi said (to them), "Let us visit my house, parents!"'

There are some verbs that take a non-finite nominalized complement marked by a nominalizer *nu*, but they are treated as GVs here and dealt with in the following section.

3. CONSTRUCTIONS WITH GV(S)

This section presents examples with GVs. Except for a few verbs, Michailovsky does not give examples where the GVs are used as lexical verbs.⁸ For that reason, I cannot show the contrast between lexical vs. grammatical uses of all the relevant verbs. The GVs of Hayu are listed in Table 1.

Table 1. List of GVs

	<i>lexical meaning</i>	<i>grammaticalized meaning</i>
phat	cure, be.healthy	be.able.to
on	dominate, strong	be.able.to
cut	---	finish
kin	---	try
wat	abandon	stop
dij	take.a.step	start
dzuk	---	know.how.to
darj	---	be.going.to, want
dak	like, want	need, have.to
lij	obtain, find	get.permission.to
bi ₁	claim, beg	demand
hok	---	be.convenient
pij	send	make, cause
bi ₂	---	permit
ha	give	permit
la(t)	go	purpose/distal.direction/ change.of.state/reflexive, stative
pa	do	progressive
no	be	progressive/perfect

Most of the GVs occur contiguous to the lexical verb without any marker separating them. The GV carries inflection and the lexical verb is non-finite, stripped of all the verbal inflection such as agreement and speech act markers. In most cases, the agreement marker on the GV encodes the grammatical

⁸ As for the GVs for which Michailovsky does not give the lexical meaning, I suppose there are two types:

(1) cases where the lexical meaning is the same as the grammaticalized meaning; and
(2) cases where the GV is no longer used as a lexical verb at all. I do not have any examples of the former category, so it is merely my own conjecture that such cases exist.

*relation of the lexical verb to its arguments, not that of the GV. The indexing of the arguments of the lexical verbs is rather idiosyncratic, although the semantic class of GVs in the clause gives some clues to the variation (for a detailed discussion of the agreement pattern of Hayu verbs, see Park 1990). Furthermore, the negative marker *ma* can be placed before either the GV or the lexical verb (this will be discussed separately in section 4.1.2.)*

In the following discussion, the GVs are grouped into four classes: modality GVs, manipulative GVs, deictic GV, and aspectual GVs. The labels 'modality' and 'manipulative' are from Givón's classification of complement-taking verbs (1990). According to Givón, complement-taking verbs fall into three semantic groups; modality verbs, cognition verbs and manipulative verbs. Furthermore, Givón argues that the semantic bond between two propositions, i.e., their semantic integration, is isomorphic to their syntactic integration, reflecting the iconicity principle (Givón 1990:516). Thus, manipulative verbs and modality verbs exhibit the strongest bond whereas cognition-utterance verbs exhibit the weakest bond (ibid:517). For the purpose of this paper, only modality and manipulative verbs are relevant, since no cognition verbs have developed into GVs in Hayu. Moreover, the degree of syntactic integration will be interpreted as a degree of grammaticalization since the verbs are considered from the diachronic perspective of grammaticalization theory, although from a synchronic perspective it is interpreted as a degree of syntactic bond between the main (i.e. complement-taking) verb and the complement verb. The examination of the lexical meaning of the GVs shows that most of them did not start out as complement-taking verbs. As lexical verbs, some of them are intransitive and others are transitive. For this reason, although Givón's categorization of semantic classes of verbs is adopted here, the relevant verbs are regarded as GVs, not as complement-taking verbs.

3.1. Modality GVs

The GVs with modal meaning are interesting in that the agreement pattern on the GV is very diverse and idiosyncratic. All of the four agreement patterns are attested: namely, the *intransitive*, *transitive*, *reflexive*, and *applicative* paradigms.

First of all, with one subclass of modality GVs the transitivity of the lexical verb controls the agreement pattern. The GV takes reflexive agreement when the lexical verb is intransitive and applicative agreement when the lexical verb is transitive. The GVs of 'be able to', *phat* 'be able to',⁹ *cut* 'finish', *ki* 'try', *wat* 'stop' belong to this class:

⁹ There are two GVs that convey 'ability' in Hayu: *phat* and *on*. *Phat* only occurs with intransitive lexical verbs and takes a reflexive agreement suffix, while *on* only occurs with transitive lexical verbs and takes an applicative agreement suffix.

- (18) i ga pa ò:-tuŋ-mi
 that 1SG.ERG do be.able.to-1SG→3SG.APPL.NP-ASS
 'I can do that.'
- (19) gu khok ma phax-tsuŋ¹⁰
 1SG.ABS walk neg be.able.to-1SG.REFL.NP
 'I can't walk.'
- (20) kem-he phi cux-tse
 house-in come finish-3SG.REFL.P/NP
 'He already entered the house.'
- (21) i gāū-mu tso-khata dzammai dza
 DEM village-GEN child-PL all eat
 cux-tome-m ix-tse bu:mi pixpi-ha
 finish-3SG→3PL.APPL.P-ASS say-3PL Bhumī grandma-ERG
 'The grandma genie (Bhumī) finished eating all the children of the village'
- (22) ga tshut kī:-tuŋ-mi¹¹
 1SG.ERG catch try-1SG→3SG.APPL.P-ASS
 'I tried to catch it.'
- (23) ko dza wax-to-m kānchā-ha
 earth eat stop-3SG→3SG.APPL.P-ASS younger brother-ERG
 'He stopped eating earth, the younger brother.'
- (24) gu dza mum wa-suŋ-mi¹²
 1SG.ABS eat give stop-3SG→1SG.APPL.P-ASS
 'He stopped giving me things to eat.'

The reflexive agreement pattern on these GVs is hard to explain, though we should mention that the action is in a sense directed to oneself. As for the case of the applicative agreement, it is clear that it encodes the grammatical relation of the lexical verb, not that of the GV, as is clearly shown by (21) and (24).

¹⁰ Hayu has a group of dissimilation rules that apply at the boundary of a verb root and verbal suffixes. By one of these processes, a coronal consonant coda of the root turns into /x/ before a coronal consonant.

¹¹ The final nasal of *kīn* 'try' is deleted before a homorganic obstruent at the verb root/suffix boundary, leaving the preceding vowel long and nasalized.

¹² This example is a little bit problematic because of the form of the verb *dza*. The expected form would be a nominalized form. It cannot be a sentential argument of *ha* since *ha* as a lexical verb does not take a complement. Michailovsky, in personal communication through Scott DeLancey, agrees that this is a problematic example.

The second subclass of modality GVs invariably takes a reflexive or intransitive agreement suffix regardless of the transitivity of the lexical verb. The GV *diŋ* 'start' belongs to the former type; it invariably takes reflexive agreement. On the other hand, *dzuk* 'know how to' takes intransitive agreement regardless of the transitivity of the lexical verb:

- (25) "dzo:-no-m" it diŋ-tse
eat-1SG→2SG-ASS say start-3SG.REFL
'He started to say, "I will eat you".'
- (26) gon bek dzuk-Ø-mi
2SG.ABS write know-2SG.NP-ASS
'You know how to write.'
- (27) gu da:bu pa ma dzuk-ŋo-m
1SG.ABS word do NEG know-1SG.NP-ASS
'I don't know how to speak.'

Some other GVs show inconsistent patterns. For example, *dak* 'have to' sometimes takes the agreement suffix that indexes the arguments of the lexical verb, as exemplified below:¹³

- (28) gu ima na met dak-ŋo
1.SG.ABS thus EMP die have.to-1SG.NP
'I have to die like that.'
- (29) ti thik-mu cāhī gu ma mum
water equal-POSS TOP 1SG.ABS NEG give
dax-kok-mi gona
have.to-2SG→1PE.NP-ASS 2SG.ERG
'You do not need to serve us things like beer.'

In the following example, however, *dak* does not agree with the first person singular subject but takes the third person singular agreement marker (which is zero) although it still takes the speech act marker *mi*:

¹³ As a lexical verb meaning 'like, need', *dak* takes intransitive agreement:

- (1) sag daʔ-ŋo-m
spinach like-1SG.NP-ASS
'I like spinach.'
- (2) gu ti daʔ-ŋo
1.ABS water want-1SG.NP
'I am thirsty.'

- (30) *ga le teh̃ ima ha dak-Ø-mi*
 1SG.ERG also that thus give have.to-3SG.NP-ASS
 'I also have to give things like that.'

The GV *dak* can also occur followed by *ta*, a relative clause marker/nominalizer, without inflection:

- (31) *mi da:bu su-ha le ma it dak-ta*
 DEM thing person-ERG also NEG say have.to-REL/NOM
 'Nobody needs to say such a thing.'

Michailovsky considers this type of use to be a sort of impersonal construction, where the whole proposition is treated as an argument of the GV. As for (31), it might be that it is not a complete sentence, possibly a fragment of a sentence taken out from a stretch of narrative.¹⁴ Or it could be that it is a copular construction with a nominalized clause from which the copula is deleted, leaving the nominalized clause only. Although not so productive in Hayu, this phenomenon of copula deletion is not uncommon; for example, the deletion of the copula from the configuration of the copular construction with a nominalized clausal argument can be found in Japanese (from [*V-no desu*]) and in Newari, another Tibeto-Burman language (DeLancey 1989ms), as well as in the Lahu *æ* construction (Matisoff 1972, 1973). Indeed in the following example, *dak-ta* is followed by a copula:

- (32) *ima-mu jeksa ko cha jeksa boŋ bō:caŋ-po:-ji-ha*
 thus-POSS night TH six night till wing-do-NOM-ERG
bobob-ha thek dak-ta no-m ix-tse
 fly-NF cross have.to-PART be-ASS say-3S.REFL
 It is so big that it takes six nights for a bird to cross it by flying.'

Like *dak*, *hok* '(it is) appropriate' does not agree with the subject of the lexical verb and occurs with the REL/NOM marker *ta*. It is not used as a lexical verb:

- (33) *gu mima pa hok to*
 1SG.ABS thus do be.appropriate-3SG.NP EMP
 'It is O.K. that (you) treat me this way.'
- (34) *lo:tso siŋtoŋ ga maan jerj hok-ta*
 male man 1SG.ERG NEG see be.appropriate-REL/NOM
 'I should not see a man.'

¹⁴ This was suggested by Scott DeLancey.

Lastly, *daŋ* 'want' is not used as a lexical verb and it cannot take inflection. Instead, the copula *no* follows it and takes the inflection. In (35) and (36), *daŋ* looks more like a verbal particle:

- (35) gu le dza daŋ no:-ŋo
 1SG.ABS also eat want be-1SG.NP
 'I also want to eat.'

The GV *daŋ* and the copula *no* can be separated by a non-final marker *ha*:

- (36) dza daŋ-ha no:-ŋo
 eat want-NF be-1SG.NP
 'I want to eat/ I am going to eat.'

The following is an example where *daŋ* plus the lexical verb *met* is reduplicated as a single unit before *ha*:

- (37) a ta:mi maŋ phatphat-ha met-daŋ-met-daŋ-ha
 3.SG.POSS daughter NEG healthy-NF die-want-die-want-NF
 no-m
 be-3SG.P-ASS
 'Her daughter, not being healthy, was almost going to die.'

This configuration is parallel to the periphrastic perfect to be discussed in section 3.4, where the reduplicated verb form plus the non-final marker *ha* is followed by the copula *no*:

- (38) mi wol-ta toton-ha mumut-ha no-m
 DEM decrepit-NOM land-NF sit-NF be.3SG.P-ASS
 'The decrepit (bird) had landed and then sat.'

However, note that (38) does not convey a perfect sense. Neither does it convey a desiderative sense. With limited data this seems hard to account for. Finally, *liŋ* is the only modality GV that occurs with the nominalizer *mu*:^{15/16}

- (39) ga ro:mi le khet-mu ma li:- kuŋ
 1SG.ERG spouse also bring.back-NOM NEG get.permission-1SG→3SG.P
 'I could not bring back my spouse either.'

¹⁵ *Mu* as a nominalizer occurs only in this type of construction. *Mu* is also used to indicate the citation form of the verb with a verb root to translate Nepali infinitive in *V-nu*, for example, *dza-mu* 'to eat'. There is another *mu*, a possessive postposition, but it is unclear whether it is related to the nominalizer.

¹⁶ The Lahu particle *ue* referred to above is also a genitive marker in addition to its nominalizing and relativizing functions, and its role in the citation form of verbs. This makes it plausible that the Hayu possessive *mu* is indeed related to the nominalizer *mu* (see preceding note). [Ed.]

To summarize, although semantically they form a class, the modality GVs do not show identical syntactic behaviors. Most of all, the agreement behavior of modality GVs is notably unsystematic, ranging from those that take different agreement markers depending on the transitivity of the lexical verb to those incapable of taking agreement at all. At this point it is hard to account for why they show such variation. At least in terms of the degree of grammaticalization it can be said that those GVs that cannot take an agreement marker are more grammaticalized than those that can. Indeed we have seen that *daŋ* behaves almost like a particle rather than a GV, and hence can be considered as one of the most grammaticalized GVs. What is clear is that although they carry agreement suffixes with them, the GVs can no longer mark their own grammatical relation. However, there is also a certain amount of inconsistency in the agreement pattern that does not look exactly like encoding the grammatical relation of the lexical verb either. Finally, although most of the modality GVs occur after a bare verb, one GV (*liŋ*) occurs with a verb marked with a nominalizer. However, this kind of inconsistency is expected in a grammar in view of the fact that grammaticalization is an on-going process on a continuum. The verbs that started to get grammaticalized earlier will show a higher degree of grammaticalization, manifested through the least amount of verbihood. In contrast, those that started later will show a lesser degree of grammaticalization manifested through the typically verbal morphosyntax which they still exhibit. For example, the behavior of *liŋ* can be accounted for by this line of argument: since its history is shorter than that of other GVs, it has not reached the point where the clausal boundary marker is dropped, and the nominalizer *mu* still lingers with it. Inconsistency in the encoding of grammatical relations and in the taking of agreement markers can also be seen as an indication of gradience in deverbihood at intermediate points on the continuum (cf. Hopper 1987).

3.2. Manipulative GVs

The GVs that convey a manipulative sense fall into two sub-groups; those that occur with the complementizer *mu* and those that do not. The GVs *piŋ* 'allow', *bi* 'permit' occur without *mu* between them and the lexical verb:

- (40) *ga gon pheri xwan-xwan dza piŋ-no-m*
 1SG.ERG you.ABS again full eat make-1SG→2SG.P-ASS
 'I made you eat your fill again.'

- (41) *ga umu tso buti mom pi:-kuŋ-mi*
 1SG.ERG mother child rice give make-1SG→3SG.P-ASS
 'I had mother give the child rice.'

- (42) dza ma bi:-ɾome gu
eat NEG allow-3PL→1SG.P 1SG.ABS
'They did not allow me to eat.'
- (43) bek bi:-to!
enter permit-2SG→3SG
'Let him enter!'
- In contrast, *bi*₂ 'demand', and *ha* 'allow' occur with *mu*:
- (44) bek-mu bi:-ko!
enter-COMP demand-2SG→3SG
'Ask him to enter!'
- (45) gu dza-mu ha:-suŋ mi-ha
1SG.ABS eat-COMP give-3SG→1SG.P 3SG-ERG
'He allowed me to eat.'

Note that all the manipulative GVs take a transitive agreement suffix which indexes the manipulator (the subject of GV) as the subject of the whole sentence acting upon the manipulee (the subject of the lexical verb). Note also that all the arguments of the lexical verb are in absolutive form, although only the subject of the lexical verb is indexed on the agreement suffix. The agreement facts and the case marking indicate that two verbs, the GV and the lexical verb, are very tightly integrated syntactically. However, the above data also show that the manipulative GVs are less grammaticalized than modality GVs in that they still have their argument structure and their argument can be indexed on the agreement suffix, unlike modality GVs. The occurrence of some manipulative GVs with the nominalizer also suggests that these verbs are less grammaticalized.

3.3. Deictic GV *la(t)*

The verb *la(t)*, which means 'go' as a lexical verb, has developed more than one grammaticalized sense. It conveys different shades of meaning depending on the type of verb preceding it.

First of all, with action verbs, it conveys 'going for a certain purpose', or 'go to do something' and it takes either a reflexive or an intransitive agreement marker:¹⁷

¹⁷ According to Michailovsky, whether the agreement form is reflexive or intransitive, there is no meaning difference. It is unclear to me why it takes reflexive agreement. According to Michailovsky, however, there is a transitive verb identical in form to *la(t)* 'go' and it means 'take (away)': *ml ax-tse*
he-ABS go.away-3SG.P.REFL
'He went away (lit. He took himself away).'

- (46) nakpu nonotso sirj pa la?-natshe-m
 two.HUM.CLS sisters wood do go-3D.REFL-ASS
 'Two sisters went to gather firewood.'

With motion verbs, it conveys distal directional sense:

- (47) lon la?natshe-m
 run go-3D.REFL.P-ASS
 'They ran away.'
- (48) bek la!
 enter go
 'Enter!' (The speaker is outside.)

With intransitive verbs, *la* conveys change of state:

- (49) ima wol a-surj
 thus emaciated go-1SG.P
 'I became emaciated like this.'
- (50) a thum dzik lax-tse
 3SG.POSS heart break go-3SG.REFL.P
 'His heart broke.'

With transitive verbs, *la* detransitivizes the preceding verb and conveys the sense of reflexive or stative:

- (51) thop la-surj-mi
 bump go-1SG.P-ASS
 'I bumped my head.'
- (52) ma jej la-Ø mima jeksa
 NEG see go-3SG.NP thus night
 'That is not visible like this at night.'
- (53) kolu-ha ma ret on la
 one-ADV NEG lift.up be.able.to go.3SG.NP
 'It cannot be lifted by one person.'

It seems that the reflexive agreement on the GV *la(l)* is related to the reflexive use of this transitive verb.

This detransitivizing function of the GV *la(t)* seems very peculiar to Hayu in that it is not attested in other Tibeto-Burman languages (cf. DeLancey 1980). It is also interesting that in contrast to *la(t)* 'go', another deictic verb *phi(t)* 'come' has not developed any grammaticalized use at all.

3.4. Complex aspectual constructions

This section considers two constructions that show the grammaticalized use of two verbs, the copula *no* and the lexical verb *pa* 'do'. Unlike the GVs we have looked at so far, these verbs require the non-final marker to be present between them and the lexical verb, which configuration is structurally parallel to the clause chain construction discussed in 2.2.1. These constructions convey different aspectual senses depending on the type of non-final marker.

3.4.1. Perfect

The copula *no* 'be' preceded by a reduplicated verb plus *ha* conveys perfect:

- (54) *mi wol-ta toton-ha mumut-ha no-Ø-m*
 DEM emaciated-NOM land-NF sit-NF be.3SG.P-ASS
 'The decrepit one (bird) had landed and then sat.'
- (55) *bhedā cucut-ha no-Ø-m ix-tse a ta:mi*
 goat watch-NF be-3SG.P-ASS say-3SG.REFL.P 3.POSS girl
 'Her daughter had been watching goats.'

Michailovsky (1988:149) suggests that this construction might be a calque of the Nepali perfect or pluperfect. According to Michailovsky, the phrase *mumut-ha no* is parallel to Nepali *base-ko theyo* 'had sat', where *basnu* is 'sit', and *theyo* is a suppletive past form of *cha* 'be'. However, he also mentions that it is not exactly identical to the Nepali perfect because Nepali *ko* is more similar to the Hayu nominalizer/participializer *ta* than to the non-final marker *ha*.

3.4.2. Progressive and continuative

No or *pa* preceded by a verb marked with *nana* conveys progressive or continuative sense. With the data at hand, it is unclear whether there is any restriction on the distribution of these two verbs:

- (56) *mi nonotso ...khok-nana no-Ø*
 DEM sisters walk-NF be-3P.NP
 'The sisters are walking.'

- (57) mi syāl ko nomothep dzok-nana dza-nana
 DEM jackal TOP night arrive- NF eat-NF

expi dak-nana ra:pi-mu lo
 excrement defecate-NF taro-POSS leaf

lot-nana pa:-ko-m are
 plant-NF do-3SG.P-ASS it.is.said

'The jackal continued to come every night, eat, defecate and plant the leaves of taro.'

4. EVIDENCE OF GRAMMATICALIZATION

This section considers syntactic and semantic criteria for grammaticalization. In general grammaticalization is defined as a process by which lexical morphemes develop into grammatical morphemes (e.g. Kuryłowicz 1965, Heine et al. 1991a, DeLancey 1991). Also, grammaticalization is typically accompanied by reanalysis, which is understood as changes of constituent structure without any change in surface configuration (Langacker 1977, Heine et al. 1991a, DeLancey 1991). Based on these theoretical claims and the syntactic behaviors of the GVs in the synchronic data, I propose that the GVs of Hayu have originated from the reanalysis of the clause chain construction and complement clause construction that were already present in Hayu. Then what would constitute denominators of GVs in synchronic grammar provides morphosyntactic evidence that a sentence with a GV is no longer a bi-clausal but a uni-clausal structure. As with other aspects in grammar, there would be a cluster of features that indicate a tight clausal integration (cf. Givón 1992). This also implies that the morphosyntactic behaviors of GVs would not be homogeneous but rather gradient (cf. Bolinger 1980, Heine forthcoming). The implication is borne out in the data. For example, we have seen that the agreement behavior of modality GVs was almost messy; there are some GVs that still occur with a complementizer. But these odds and ends are inevitable parts of grammar if we consider the ever-changing nature of language (Hopper 1987).

4.1. Syntactic criteria

As syntactic criteria for grammaticalization, we point to the features that indicate loss of verbhood, i.e., evidence of decategorialization.

4.1.1. Reduction of inflection

We have seen from the data that in most cases, the GV carries the inflection that indicates grammatical relations and other information of the lexical verb, while the lexical verb itself is without any morphological trapping,

signalling a tight syntactic bond between the lexical verb and the GV. Furthermore, the agreement marker on the GV in most cases indexes the grammatical relation of the lexical verb, not that of the GV, indicating the loss of one of verbal properties of the GV.

4.1.2. *Loss of grammatical relation*

We have seen that the agreement markers on the modality GVs were very unsystematic. Some GVs take different agreement suffixes depending on the transitivity of the lexical verb; some others cannot take agreement, which is marked instead on a copula following the GV. Among the former group of GVs, the applicative agreement marker on the GV encodes the grammatical relation of the lexical verb, reflecting the fact that GVs have lost one of their verbal traits, namely, the ability to mark their grammatical relations via an agreement suffix. In other words, the relationship between the lexical verb and the GV is not that of a complement clause to a higher complement-taking verb where the complement clause is the argument of the complement-taking verb.¹⁸ Recall that some complement-taking verbs such as 'know' index the complement clause as its object (section 2.2.2.1.). We have also seen that some modality GVs cannot even take an agreement suffix at all.

However, the manipulative GVs are less grammaticalized than modality GVs as far as the ability to index their argument through agreement is concerned, since they can still have their grammatical relations encoded.

4.1.3. *The behavior of negation*

Hayu has two negative markers whose use is mutually exclusive: *ma* occurs with a finite verb, and *maan* with non-finite verbs. The alternation of these two negative markers is well exemplified below:

- (58) a ro:tso-ha **ma** wax-to. **maan** wat-nonj
 3POSS spouse-ERG NEG let.go-3SG→3SG.P NEG let.go-after

a thum *sā:rai* **ma** jox-tse-mi.
 3POSS heart very NEG satisfied-3SG-ASS.

maan jox-tilin ...
 NEG satisfied-because ...

'His spouse did not let her go. After he did not let her go, she was very unhappy. Since she was not happy...'

In the clause chain construction the scope of negation is only over the clause with a negative marker, while other clauses are not negated; i.e. the

¹⁸ This distinguishes lexical-verb-plus-GV from the finite complement clause construction.

clauses in the clause chain construction cannot be negated separately. For example, in (59) only the second clause is negated, and in (60) only the non-final clause *phat* is under the scope of negation:¹⁹

- (59) u wathe mumut-ha soksa-ha hut
 there yonder remain-NF hunger-INST speak

ma phaphat-ha mux-tse-m ix-tse
 NEG be.able.to-NF remain-3SG.P.REFL say-3.REFL.

'He was staying way over there on the other side, incapable of speaking because of hunger, he remained (there).'

- (60) a ta:mi maan phaphat-ha met-dan-met-dan-ha no-m
 3POSS daughter NEG healthy-NF die-want-die-want-NF be-3SG.P-ASS
 'Her daughter, not being healthy, was almost going to die.'

In contrast, in the construction with GVs, the GV or the lexical verb cannot be separately negated. However, the placement of the negative marker is flexible; the negative marker can occur either before the lexical verb or before the GV. But there is a restriction on the type of negative marker. Only the negative *ma* which is typical of finite clauses may occur in this type of construction:

- (61) *rājā*-nor pat-nor pat-nor *ek-bite*-ha le
 king-with beat-NF beat-NF one-dwarf-ERG also

ma thop ð:-to
 NEG knock.down be.able.to-3SG→3SG.P

- *tei* *rājā*-ha le thop ma ð:-to
 DEM king-ERG also knock.down NEG be.able.to-3SG→3SG.P

'In the combat with the king, neither could the dwarf knock down the king nor could the king knock down the dwarf.'

Furthermore, even when the nominalizer is present, the negative marker can be placed before the lexical verb without yielding any meaning difference. In (62), the morpheme *lin*, although it still carries the nominalizer as an old syntactic relic, has already been shifted to a GV semantically:²⁰

¹⁹ I am not sure why the negative marker in (59) is *ma* instead of *maan* which we would expect since the clause is non-finite. It may be due to the presence of the GV *phat*.

²⁰ Along the same line, the ergative subject can be considered as a reflex of old syntax. Since the agreement form for second person intransitive and transitive (2→3) is identical (zero for singular and *-ne* for plural) we cannot tell whether the agreement on the verb is transitive or intransitive. We do not have a full paradigm to compare but Michailovsky glosses it as intransitive.

- (62) gon-ha lat-mu ma liŋ-Ø-mi
 2SG-ERG go-COMP NEG obtain-2SG.NP-ASS
 'You will not be able to go.' (You will not get permission to go.)

- (63) ma lat-mu liŋ-ne-m
 NEG go-COMP obtain-2PL.NP-ASS
 'You (PL) will not be able to go.'

Especially when there is more than one GV, *ma* is placed before the lexical verb, with its scope extending both to the lexical verb and the GVs:

- (64) kolu-ha ma ret on la
 one-ADV NEG lift.up be.able.to go.3SG.NP
 'It cannot be lifted by one person.'

The behavior of negation with respect to constructions with GVs suggests that these constructions are no longer bi-clausal, since neither the lexical verb nor the GV is separately negatable. It is undeniable that semantically they are not separately negatable. But the fact that the negative marker can be moved to the front of the lexical verb indicates a syntactic bond, i.e., tight integration, between the lexical verb and the GV. In other words, GVs are losing their ability to carry the negative marker.

4.1.4. Absence of clausal boundary marker

We have seen that except for a few GVs, most of the GVs are not separated by any kind of clausal boundary markers such as a non-final marker or a nominalizer, but come right next to the lexical verb, thus showing the strong syntactic bond between them.

As for *liŋ*, *bi₂* and *ha* which require the nominalizer *mu* to be present, I claim that the presence of the nominalizer merely indicates that these verbs have not yet reached the endpoint of the grammaticalization process which would ultimately result in its absence. This was further supported by the behavior of negation (see section 4.1.2).

4.2. Semantic criteria

We here consider semantic aspects of the grammaticalization of verbs, namely, the semantic shift of verbs, and the single event interpretation of the structure with GV(s).

4.2.1. Semantic shift

One of the crucial aspects of grammaticalization is semantic shift; a morpheme assuming a grammaticalized meaning instead of conveying its full lexical sense.

We have seen that in the configuration of a VV sequence where the first verb is a main lexical verb and the second verb a GV, the GV no longer

contributes its original lexical sense. Instead the GV conveys its shifted grammaticalized sense. In contrast, we have seen that each verb conveys its own lexical sense in the clause chain construction and in the complement clause construction.

4.2.2. *The one event-one clause interpretation*

Although there is a certain amount of danger implied in equating a clause to an event, I will assume (following DeLancey 1991) that one clause denotes one event. In Hayu, this hypothesis is validated by the behavior of negation.

In section 4.1.3., we saw that although the clauses in the clause chain construction are separately negatable, the GV in the construction with GV(s) is not. This contrast shows that the clause chain construction is a multi-clausal structure that denotes more than a single event whereas the construction with GV(s) is a mono-clausal structure that denotes a single event.

5. CONJECTURE ON THE DEVELOPMENT OF GVS

In section 4, I suggested that the GVs of Hayu are the result of the syntactic and semantic reanalyses of two constructions, the clause chain and complement clause constructions. In this section, I consider the path of development of GVs.

5.1. *Clause chain construction as a source structure*

If the source structure were a clause chain construction, what would have happened is that the non-final clause would have been reanalyzed as a main lexical verb and the final clause would have become a GV. Then at least two different routes could be hypothesized, since Hayu has more than one non-final marker.

First of all let us consider the clause chain construction with the non-final marker *ha* as a source structure. If we recall that the verb preceding the non-final marker *ha* was reduplicated, in the process of simplification of the original bi-clausal structure to the present mono-clausal structure of lexical verb plus GV, an intermediate stage needs to be posited where the reduplicated verb form is reduced to a bare root form first, prior to the loss of the non-final marker. (65) below summarizes the path of development of a GV from the clause chain construction with the non-final marker *ha*:

- (65) [[VV-*ha*] [V-[TNS]_{INFL}]] →
 [[V-*ha*] [V-[TNS]_{INFL}]] →
 [V-[AUX-TNS]_{INFL}]

This path of development is indirectly attested in synchronic grammar in the examples with the GV *daŋ*. Although *daŋ* itself has almost turned into a

particle in that it no longer can carry inflection, *darj*, in its combination with *no* 'copula', shows the possible intermediate stages along the path from the clause chain construction with the non-final marker *ha* to the present structure of a main lexical verb plus a GV. We have seen at least three variations in the way *darj* and *no* can be used, as illustrated in (66):²¹ a) one with a reduplicated lexical verb and *darj* followed by *ha* and *no*; b) another with a simplified single form of a lexical verb plus *darj* followed by *ha*; c) finally with simple juxtaposition of lexical verb, *darj* and *no* without *ha*:

(66) a. **V₁ darj V₁ darj-ha no-INFL**
met-darj-met-darj-ha no-m

b. **V₁ darj-ha no-INFL**
dza darj-ha no:-ŋo

c. **V₁ darj no-INFL**
dza darj no:-ŋo

A second possibility is the clause chain construction with the non-final marker *nana* or *noŋ* as a source structure. If this were the starting point, then the drop of the non-final marker alone would have been enough to bring about the present structure of verb plus GV (AUX) configuration. (67) below summarizes what this change would have been:

(67) [(V-*nana* / *noŋ*) [V-[TNS]_{INFL}]] →
 [V V-[TNS]_{INFL}] →
 [V-[AUX-TNS]_{INFL}]

Although more data are necessary to prove the exact source of each GV, presumably it can be assumed that the GVs which are intransitive in their lexical use have originated from the clause chain construction. However, it is hard to say definitely exactly from which kind of clause chain construction they might have originated. To confirm this more data are required.

5.2. The nominalized clause construction as a source structure

We have seen that three GVs, *liŋ*, *bi₂* and *ha*, occur with the nominalizer *mu*. Considering their lexical meaning, it is clear that they did not start out as complement-taking verbs, but as simple transitive verbs. The lexical meaning of *liŋ* is 'obtain' and that of *ha* is 'give'. The lexical meaning of *bi₂* is not given. Then the plausible scenario would be that these verbs took nominalized clausal complements as their argument and the existence of this construction precipitated the grammaticalization of these verbs, similar to the

²¹ See also section 3.1, above.

grammaticalization of the English verb *get*.²² Then presumably, the process of reanalysis would have brought about a mono-clausal structure from a bi-clausal construction with a nominalized clausal complement, turning the former nominalized verb into a main lexical verb, and the former matrix verb into a GV, respectively. Then we can posit the following path of development:

- (68) [[V-*mu*]_{NP} V-[TNS]_{I_{NFL}}] →
 [V V-[TNS]_{I_{NFL}}] →
 [V-[AUX-TNS]_{I_{NFL}}]

6. CONCLUSION

We have discussed the GVs of Hayu. One of the major questions raised in the introduction was whether there is any significant difference in the rise of GVs between languages with complex verbal morphology and those without it (e.g., Burmese or Lahu). The interesting result we have found is that the paths of development of the Hayu GVs are not much different from those of other languages which do not have complex verbal morphology, although details such as inventory, the range of semantic shift, syntactic behaviors, etc. may be different.

²² This scenario was suggested by DeLancey (p.c.).

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