

# The development of finite verbs from nominalized structures in Northern Mao

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Northern Mao (NM), an endangered Omotic-Mao language of Ethiopia, exhibits rigid OV patterns where final verbs are the most finite structures in the language. Only NM's final verbs carry tense markers and indicate the completion of a sentence. Some final verb constructions, however, display internal structural relics, attesting to a nominalized heritage: infinitive verb stems and morphological subordinators. This paper examines infinitival and subordinate structures and explores the diachronic pathways which likely led to today's finite final verb forms.

## 1. Introduction

Northern Mao (NM), also known by the autonym *Màwés Aats'è*, is an endangered Omotic-Mao language of Ethiopia (Bender 2000) spoken by an estimated 2-3,000 speakers (M. Ahland 2012: 13). NM exhibits rigid OV patterns where final verbs are the most finite structures in the language. The final declarative and interrogative verbs are the only structures which express a morphologically marked tense distinction (future /-gà/ vs. non-future /-Ø/, on irrealis verbs), and the final verbs are the only structures which indicate the completion of a full sentence (also expressed by a speech act marker on final verbs). Some final verb constructions, however, display internal structural relics, attesting to a nominalized heritage. These relics include infinitive verb stems, the inclusion of a relativizer, and other subordinators. That nominalizations such as these can serve as sources for finite constructions is widely attested in the world's languages (Gildea 1993; Noonan 1997: 382; Givón 2009: 68; DeLancey 2011). This paper examines NM's infinitival and subordinate structures and explores the diachronic pathways which likely led to today's finite final verb forms.

The discussion begins with pertinent background information, including a typological overview (§1.1), a discussion of finiteness in NM (§1.2), the role of tone as a marker of stem finiteness (§1.3) and the nominal status of infinitive stems (§1.4). The discussion then details how subordination in NM involves nominalization through an exploration of the role of infinitive stems in complement and adverbial constructions (§2.1), relativization (§2.2), and the /-gàf/

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subordinator constructions (§2.3). Section 3 illustrates the indications of nominalization and subordination in main clause structures: the use of the infinitive stem in finite final verbs (§3.1), the role of relativization in the past progressive construction (§3.2), and the historical development of the irrealis future verb construction from an old periphrastic subordinate + final verb construction (§3.3). The discussion concludes with a summary of the evidence supporting a nominalized source for finite structures and raises questions for further research.

## 1.1. Typological overview

NM, like most Omotic languages, exhibits a rigid OV pattern across syntactic constructions. Table 1 lists the NM constituent-order patterns attested relative to Greenberg’s universals (1963).

Greenberg’s universal	Parameter	Northern Mao pattern
1	main clause	OV
3, 4	adposition	NP - postposition
2	genitive (possessor) and head noun	Genitive / Possessor - N
17	modifier and head noun	Modifier - N
24	relative clause and head noun	Relative Clause - N
22	comparatives	Standard-Marker-Quality
16	inflected auxiliaries	sentence final
9	question particles	sentence final
12	question words	sentence initial or <i>in situ</i>
27	affixes	primarily suffixes

**Table 1: Constituent order typology of Northern Mao (from M. Ahland 2012: 48)**

Examples (1-4) illustrate selected patterns from Table 1: the order of constituents in the transitive constructions (1), the order of NP and adpositional element (postposition) (2-3), and the order of relative clause and head noun (4).

- (1) *múnts’-ìf fò:f-nà ha-pí-’á*  
 woman-SBJ snake-OBJ AFF-kill-DECL  
 ‘A woman killed a snake.’
- (2) *tí-ŋ ’kjat’-èt há:l-’á*  
 1SG-GEN house-LOC sleep-DECL  
 ‘S/he slept at my house.’

- (3) *bàmbàs-fál-èt*                      *ha-tí-kí-á*  
 Bambassi-way-SOURCE AFF-1SG-come-DECL  
 ‘I came from Bambassi.’
- (4) *hez-ít*            *mùnts’-òl-ìf*            *nók-and-wé-jà*  
 hit:INF-REL woman-PL-SBJ be.good:INF-NSG-NEG-COP  
 ‘Women who hit are not good.’

## 1.2. Finiteness in Northern Mao

Finiteness in NM is scalar; it is best viewed as matter of degree where constructions can be arranged on a continuum. This view of finiteness is in accord with Givón, who defines ‘finiteness’ as “an aggregate feature of clauses” which involves properties of clauses as well as verbs (i.e. the licensing of arguments and other morphological structures such as case markers, and verbal inflectional morphology: subject marking, tense, aspect, modality, etc.) (Givón 2001: 25). In NM, as is common in other OV systems, final verbs are the most finite structures.<sup>2</sup>

First, only final irrealis verbs can express tense morphologically in NM. Irrealis verbs mark future with /-gà/ (5-6) and non-future tense with /-Ø/ (7).

- (5) *ha-tjam-gà-t-bíj-á*  
 AFF-count-FUT-1SG-NPST:AUX-DECL  
 ‘I will count.’
- (6) *tjam-á-gà-t-bíj-á*  
 count:INF-NEG-FUT-1SG-NPST:AUX-DECL  
 ‘I will not count.’
- (7) *tjam-á-tí-bíj-á*  
 count:INF-NEG-1SG-NPST:AUX-DECL  
 ‘I did not count.’

While realis verbs do not carry any morphological marker of tense they always express non-future temporality (8), which exhibits the same scope behaviors as the morphological tense distinction on irrealis verbs.

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<sup>2</sup> Contra, for instance, the less-finite, medial verbs in clause chains which do not carry tense marking or speech act/utterance-type marking, see also M. Ahland 2012: 559.

- (8) *ha-tí-tjam-á*  
 AFF-1SG-count-DECL  
 ‘I counted.’

Additionally, all final verbs take one speech-act or modality (utterance type) marker which indicates the end of the NM sentence.<sup>3</sup> While declarative utterances are illustrated in examples (5-8), the following illustrate the utterance-final marking for the hearsay (9), polar interrogative (10), content interrogative (11), imperative (12-13), and jussive utterances (14-15).

- (9) *rám-ìf ha-pò:n-gà-m-bìf-w-á*  
 Ram-SBJ AFF-go.out-FUT-3-EXIST:INF-HRSY-DECL  
 ‘Rama will leave (they say).’

- (10) *hup'-es-ìf ha-húp'-à:*  
 steal:INF-person-SBJ AFF-steal-INTR  
 ‘Did a thief steal (it)?’

- (11) *kí-ìf tí-ŋ kà:l-là mí-à:*  
 who-SBJ 1SG-GEN porridge-OBJ eat-INTR  
 ‘Who ate my porridge?’

- (12) *ki:m-na tjám-í*  
 money-OBJ count:INF-2SG:IMP  
 ‘Count the money!’

- (13) *ìf dù:l-ná pì-wá*  
 DEF hyena-OBJ kill:INF-2DU:IMP  
 ‘You two kill the hyena!’

- (14) *ki:m-na tjám-t-í-nè*  
 money-OBJ count:INF-JUSS-3-NPST:AUX  
 ‘Let him/her count the money.’

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<sup>3</sup> For NM’s complete set of utterance markers, see M. Ahland 2012: 469.

- (15) *tó:ló hán-jé:ts'-tà*  
 now 1DU-run-JUSS  
 ‘Let us two run now.’

### 1.3. Tone and stem precategoricality

Tone plays an important role in NM as a marker not only of lexical contrast but also of stem type as either finite or non-finite.<sup>4</sup> In fact, the most basic building blocks for words in NM appear to be toneless roots (M. Ahland 2012: 184). These toneless roots (marked with  $\sqrt{\quad}$ , in Table 2) can be grouped into three categories based on the stem types which are identifiable by tonal melody (Ahland 2014a): 1) roots which are used to form only noun stems; 2) roots which are used to form both finite and non-finite (infinitive/nominal) verb stems (Table 2); and 3) roots which are used to form distinct noun stem, finite verb stem and infinitive verb stems (Table 3).

There are seven nominal stem melodies for the vast majority of nominal forms (which are bi-syllabic): H, M, L, HL, MH, ML, LH. These melodies serve as the primary marker of nominal status of a stem and are used for prototypical nouns as well as infinitive verb stems. Most finite verb stems, on the other hand, exhibit either a H, M, or L melody. The only exceptions to these three finite verb melodies involve the less-common verb stems which are more than a single syllable; in all cases, though, the finite verb melody is distinct from the nominal stem melodies.

Table 2 lists a sampling of roots which can serve as finite and infinitive verb stems. Many roots belong to this category. Clearly, some of the infinitive verb stems in Table 2 can be used as nouns in addition to their use as infinitives (see illustrative examples below Table 2).

	Root	Finite verb stem		Infinitive verb stem		
			Tone class	Used as infinitive verb	Used as noun	Tone class
1	$\sqrt{kjat'}$	kját' build.house	H	kjat'-è build.house:INF-TV	kjat'-è house-TV	ML
2	$\sqrt{kjal}$	kjàl lay.egg	L	kjàl-è lay.egg:INF-TV	kjàl-è egg-TV	HL <sub>2</sub>
3	$\sqrt{go:m}$	gó:m think/plan	H	go:m-è think/plan:INF-TV	go:m-è thought/plan/idea-TV	ML
4	$\sqrt{int'}$	int' see	M	ínt'-é see:INF-TV	ínt'-é sight-TV	H <sub>1</sub>

**Table 2: Selected roots which form finite and infinitive verb stems**

In (16), the root  $\sqrt{kjat'}$  is tonally marked as an infinitive verb stem (used as a noun with object case marking);<sup>5</sup> it is also tonally marked as a finite final verb at the end of the utterance.

<sup>4</sup> Tone is represented with an acute accent diacritic [á] for H, a grave accent diacritic [à] for L; the M tone is unmarked [a]. NM exhibits underlying tone classes where H and HL tonal melodies subdivide based on their behavior in different environments. These classes are represented with subscript numerals throughout (see also M. Ahland 2012: 146).

<sup>5</sup> Terminal vowels are not found in many syntactic environments, including when case markers are present (cf. M.

- (16) *kjat'-nà ha-tí-kját'-á*  
 house-OBJ AFF-1SG-build.house-DECL  
 'I built a house.'

Example (17) illustrates the full nominal status of the noun 'house'. It can be possessed, marked with the PL number suffix, and take case.

- (17) *ham kjat'-wol-if ha-bíj'-and-á*  
 1PL house-PL-SBJ AFF-EXIST-NSG-DECL  
 'There are our houses.'

Example (18) illustrates this same root used as an infinitive stem (marked tonally the same as the noun stem, but with a verbal purpose-subordinator suffix).

- (18) *kjat'-gàf ha-tí-wó:l-á*  
 build.house:INF-PURP AFF-1SG-want-DECL  
 'I want to build a house.'

The root  $\sqrt{kjal}$  'egg' behaves similarly: (19) has three instances of this root. The first instance is marked as an infinitive verb form and is used as a noun with object case marking; the second instance of the same root is used as a finite purpose (subordinate) verb stem; the third instance is a finite final verb.

- (19) *wa:k-if kjál-nà kjàl-gàf hí-in*  
 chicken-SBJ egg:INF-OBJ lay.egg-PURP go-SS:NF  
*ha-kjàl-á*  
 AFF-lay.egg-DECL  
 'A chicken went to lay an egg and (then) laid (an egg).'

Perhaps most interesting of all are those roots which can be used to form three distinct stem types: finite verb stems, infinitive verb stems, and noun stems--each marked with a different tonal melody (Table 3).

	Root	Finite verb stem		Infinitive verb stem		Noun stem	
			Tone class		Tone class		Tone class
1	√to:k	tó:k head.carry	H	tò:k-è head.carry:INF-TV	L	to:k-è head-TV	ML
2	√p'if	p'if give.birth	H	p'if-é give.birth:INF-TV	MH	p'if-e child-TV	M
3	√but'	bùt' be.afraid	L	bùt'-é fear:INF-TV	LH	bùt'-è shame/fear-TV	HL <sub>2</sub>
4	√git	git cover	L	gít-è cover:INF-TV	HL <sub>2</sub>	git-é mask/cover-TV	LH

**Table 3: Selected roots which form finite, infinitive, and noun stems**

The examples below illustrate the use of the √to:k root as a noun stem (20 and 21), infinitive verb stem (22) and finite verb stem (21 and 23).

- (20) *if' to:k-ìf' ha-man'k'-á*  
3SG head-SBJ AFF-hurt-DECL  
'Her/his head hurts.' (e.g. a headache)
- (21) *to:k-èt ha-tó:k-á*  
head-LOC AFF-head.carry-DECL  
'S/he carried it on (her/his) head.'
- (22) *tò:k-gàf ha-tí-wó:l-á*  
head.carry:INF-PURP AFF-1SG-want-DECL  
'I want to carry it (by head).'
- (23) *k'ò:p-ná tó:k-gàf ha-tí-wó:l-á*  
basket-OBJ head.carry-PURP AFF-1SG-want-DECL  
'I want to carry a basket (by head).'

## 1.4. The nominal status of infinitive stems

Infinitive stems in NM can function as nouns (as illustrated in exs. 15 and 16, above). In addition infinitive stems are more noun-like than verb-like in terms of word-structure and constructional distribution. Prototypical nouns in NM exhibit a number of structural and distributional features which can serve as tools for identifying and determining degrees of nominalization of less prototypical nouns, such as infinitive stems.

The discussion begins with word-structure. First, two-syllable nouns, which are by far the most common shape attested in the NM lexicon, exhibit one of seven surface tone melodies: H, M, L, HL, MH, ML, or LH (Ahland 2009: 23). Second, all nominals (including pronouns,

demonstratives, and the definite article) end in a terminal vowel /-e/ when in citation form and at the ends of utterances or main clauses (M. Ahland 2012: 194 and 313). This same vowel is seen on infinitive stems in citation form in Tables 3 and 4. Third, prototypical nouns can take number marking (/ -kuw/ DU and /-(w)ol/ PL). While the semantics of some infinitive stems does not allow for countability, other infinitive stems can be marked for number without any additional change from infinitive stem to noun (as in 16, above). Finally, prototypical nouns exhibit a tonal change when syntactically modified. The modified head takes on a lexically-specified construct form/state melody (either M, ML, or L, depending on the citation melody of the noun) (M. Ahland 2012: 146). Table 4 lists the tonal pattern changes from citation to construct melody for two-syllable nouns.<sup>6</sup>

<i>Citation melody</i>	<i>Construct form melody</i>
H <sub>1</sub>	>M
M, L, HL <sub>1</sub> , MH, ML	> ML
H <sub>2</sub> , HL <sub>2</sub> , LH	> L

**Table 4: Citation vs. construction form melodies of nouns**

Examples (24-25) illustrate that both noun stems and infinitive stems exhibit the citation vs. construct melody behavior. In these examples, roots from Table 3 (rows 1 and 3) are used to form noun and infinitive stems. In each instance the citation melody (of the noun and infinitive stems in Table 3) is replaced with a lexically-specified construct melody.

- |   |   |
|---|---|
| <p>(24) N stem from ML &gt; ML<br/> <i>nà to:k-è</i><br/>           PROX head-TV<br/>           ‘this head’</p>                   | <p>INF stem from L &gt; ML<br/> <i>íʃ tò:k-è</i><br/>           3SG head.carry:INF-TV<br/>           ‘his/her carrying (by head)’</p> |
| <p>(25) N from HL<sub>2</sub> &gt; L<br/> <i>nà bùt'-è</i><br/>           PROX shame/fear-TV<br/>           ‘this shame/fear’</p> | <p>INF stem from LH &gt; L<br/> <i>íʃ bùt'-è</i><br/>           3SG shame/fear:INF-TV<br/>           ‘his/her fearing’</p>            |

NM’s infinitive forms are also similar to nouns in terms of distribution. The examples below illustrate three common noun modification constructions: associative (26), genitive (27), and possessive (28).

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<sup>6</sup> Nouns with H citation melodies divide into two classes: those with a M construct melody and those with a L construct melody. Similarly, nouns with HL citation melodies divide into two classes: one with a ML and one with a L construct melody.



(26) *kús-kás-è*  
hand-hoe-TV  
'hand-hoe'

(27) *es-ìŋ kas-è*  
person-GEN hoe-TV  
'person's hoe'

(28) *es kas-è*  
person hoe-TV  
'person's hoe'

Infinitive stems, as well, can occur in the position most frequently associated with nouns in these modification constructions, including associative (with case marking (29) and with number marking (30)), possessive (31) and genitive (32); in examples (29) and (31-32) these infinitive stems carry case markers, and in (30) the infinitive stem is marked for dual number—further underscoring the nominal status of the stem.

(29) *k'o:m-kán-ìf ha-hék'-á*  
be.old:INF-dog-SBJ AFF-die-DECL  
'The old dog died.'

(30) *tí-ŋ wá:r-kuw-ìf k'o:m-kuw-e*  
1SG-GEN clothing-DU-SBJ be.old:INF-DU-TV  
'My two pieces of clothing are old ones.'

(31) *ìf-ìŋ ak-ìf ha-k'úm-ek'-á*  
3SG-GEN eat:INF-SBJ AFF-forbid-PASS-DECL  
'Her/his eating was forbidden.' (i.e. as during a fast)

(32) *ham k'o:m-ìf ha-hék'-á*  
1PL be.old:INF-SBJ AFF-die-DECL  
'Our old (one) died.'

## 2. Subordination as nominalization

Subordination in NM very frequently involves nominalization processes, and this nominalization is important for understanding the development of finite main clause syntax. For the purposes of this paper, nominalization is a derivational process whereby an element takes on

properties associated with the nominal category in a language. Since at least some NM roots are pre-categorical, the term ‘nominalization’ is also used for the formation of a nominal stem via the assignment of a nominal tone melody and the terminal vowel. Subordination, as it is used here, involves the embedding of a clause (minimally a verb) within another phrase or clause. Subordinate clauses may be as simple as an infinitive verb stem, a headless relative clause or complex elements which exhibit their own internal tense and aspect, subject, case and other morphological marking. Before examining relics of historical nominalization and subordination in main clause syntax, it is first important to examine properties of nominalized/subordinate clauses synchronically.

## 2.1. Infinitive stems in complement and adverbial constructions

The infinitive stem is the simplest deverbal nominalization structure in Northern Mao; infinitive stems are commonly used for action and participant nominalization (M. Ahland 2012: 222). Examples (33-35) illustrate simple subject complements with infinitive stems.

- (33) *ki-ijf*                    *ha-nok-á*  
 come:INF-SBJ    AFF-be.good-DECL  
 ‘Coming is good.’ (I’m glad you’re coming.)

- (34) *ká:nd-óʃk-ak-ijf*        *ha-k’úm-<sup>↓</sup>ek’-á*  
 pig-meat-eat:INF-SBJ    AFF-forbid-PASS-DECL  
 ‘Eating pork is forbidden.’

- (35) *tí-ŋ*                    *kjamb-ijf*        *ha-nok-á*  
 1SG-GEN    hunt:INF-SBJ    AFF-be.good-DECL  
 ‘My hunting is good.’

Examples (36-37) illustrate object complements, formed from the finite stem (36) and the infinitive stem (37).

- (36) *bàmbàs-ʃál-nà*                    *jé:ts’-nà*    *ha-tí-inint’-<sup>↓</sup>á*  
 Bambassi-way- OBJ<sup>7</sup>    run-OBJ    AFF-1SG-try-DECL  
 ‘I tried running to Bambassi.’

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<sup>7</sup> Movement predications appear to be a subset of transitive constructions in NM, and semantic Goals are marked with the /-na/ OBJ case marker (cf. Ahland 2012: 335-9).

- (37) *jè:ts' -nà ha-tí-ts'é:l-á*  
 run:INF-OBJ AFF-1SG-finish-DECL  
 'I finished running.'

A finite verb stem in a complement construction can take an object (36, 38, and 39). It may be that constructions like (36), (38), and (39) are nominalizations of a verb phrase (M. Ahland 2012: 625).

- (38) *[pàl-là kjàmb]-ìf ha-nok-á*  
 antelope-OBJ hunt-SBJ AFF-be.good-DECL  
 'Hunting antelopes is good.'

- (39) *[bàmbàs-fál-nà jé:ts']-nà ha-tí-wó:l-á*  
 Bambassi-way-OBJ run-OBJ AFF-1SG-want-DECL  
 'I want to run to Bambassi.'

In NM, the choice of infinitive vs. finite verb stem in subordinate structures correlates with several finiteness-related features: infinitive stems are used only with subordinate verbs which are not overtly marked for subject (i.e. which share the same subject as their matrix verb). Finite stems, on the other hand, may be used on same-subject subordinate structures, but they more frequently appear on subordinate verbs which carry overt subject markers or which include some internal structure (e.g. an object NP, oblique, or adverbial.) in the subordinate clause (cf. M. Ahland 2012: 612 and 630).

## 2.2. Relativization

Relativization is a nominalization process in NM (M. Ahland 2012: 225). Relativized verbs are marked with the suffix /-(i)t/. The simplest and most highly nominal relative clause is headless—i.e. it does not modify a head noun; this form is subject-less. It can carry case in relevant syntactic environments (40-41) and can be marked for number (41). Example (42) illustrates the non-relativized finite matrix verb 'come.'

- (40) *ki-t-ìf ofk-nà ha-ak-á*  
 come:INF-REL-SBJ meat-OBJ AFF-eat.meat-DECL  
 'The one who came ate meat.'

- (41) *ki-t-wol-ìf ofk-nà ha-ak-and-á*  
 come-INF-PL-SBJ meat-OBJ AFF-eat.meat-NSG-DECL  
 'The ones who came ate meat.'

- (42) *íʃ-kol-té ha-kí-wand-á*  
 3-PL-SBJ AFF-come-NSG-DECL  
 ‘They came.’

Relativization makes use of both infinitive and finite verb stems, depending on the degree of finiteness of the nominalized verb phrase. If the relativized verb includes an overt subject prefix or if the relativization includes more than just the verb (such as including an object NP or some other element in the VP, i.e. the relativization of a clause), the finite verb stem is required (43-44).

- (43) *[íʃ m̀nts’-ìʃ ki:m-na hí-tà]-t es-ìʃ*  
 DEF woman-SBJ money-OBJ 3SG-give-REL person-SBJ  
*ha-kí-á*  
 AFF-come-DECL  
 ‘The person to whom to the woman gave money came.’

- (44) *[kà:l-là mí]-t es-ìʃ ha-kí-á*  
 porridge-OBJ eat-REL person-SBJ AFF-come-DECL  
 ‘The person who ate the porridge came.’

Relativization is clearly a nominalizing process, shown by the fact that the resulting forms can serve as arguments, take case, and can be marked for number. They can also be marked with the terminal vowel found on all nominals in citation form and utterance final positions (45).

- (45) *íʃ m̀nts’-ìʃ kwats’-ít-è*  
 DEF woman-SBJ be.tall:INF-REL-TV  
 ‘The woman is tall.’

### 2.3. The /-gàʃ/ subordinator

The term subordination is here intended to encompass all embedded clauses, whether relative, complement, or adverbial. Like relativization, some other forms of subordination show properties of nominalization. One subordinate clause marker /-gàʃ/ indicates highly nominalized complements (46-48) and purpose adverbials (49).<sup>8</sup>

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<sup>8</sup> The object case marker appears to be optional in all instances except when objects appear in non-canonical positions (e.g. before the subject) (M. Ahland 2012: 327).

- (46) *mì-gàf-nà*      *ha-tí-nó:k-l-á*  
eat:INF-COMP-OBJ AFF-1SG-begin-DECL  
‘I began to eat.’
- (47) *mì-gàf-nà*      *ha-tí-ts'é:l-á*  
eat:INF-COMP-OBJ AFF-1SG-finish-DECL  
‘I finished eating.’
- (48) *mì-gàf-nà*      *ha-tí-wó:l-á*  
eat:INF-COMP-OBJ AFF-1SG-want-DECL  
‘I want to eat.’
- (49) *mì-gàf*      *tí-kí-ti-á*  
eat:INF-PURP 1SG-come-PF-DECL  
‘I have come in order to eat.’

If there is a different subject (relative to the matrix clause) on the subordinate verb or if the subordinate clause also contains object NPs or adverbials, the finite verb stem must be used. Even in these instances, there is no tense or aspect marking on the subordinate verb (50-51).

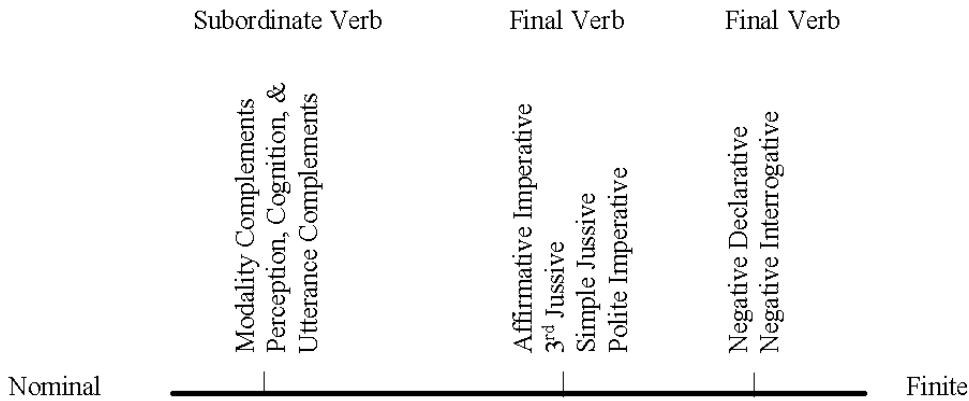
- (50) *kà:l-là*      *hí-mí-gàf-nà*      *ha-tí-wó:l-á*  
porridge-OBJ 3SG-eat-COMP-OBJ AFF-1SG-want-DECL  
‘I want her/him to eat porridge.’
- (51) *hí-mí-gàf*      *tí-kí-ti-á*  
3SG-eat -PURP 1SG-come-PF-DECL  
‘I have come in order for him to eat.’

### 3. Indications of nominalization and subordination in main clause syntax

The discussion thus far has focused on necessary preliminaries including evidence of synchronic subordination as nominalization; at this point, the focus now turns to the primary issue: evidence of historical nominalization in main clause development. As noted in the introduction, some final verb constructions in NM exhibit structures which attest to a history of nominalization: infinitive verb stems, old relativizers, and subordinators show their footprints in today’s finite structures. The NM data demonstrate yet another instance of how nominalizations or infinitive structures/less finite structures can be reanalyzed and become associated with finite functions (cf. Givón 2009; DeLancey 2011).

### 3.1. The use of the infinitive stem in synchronic finite final verbs

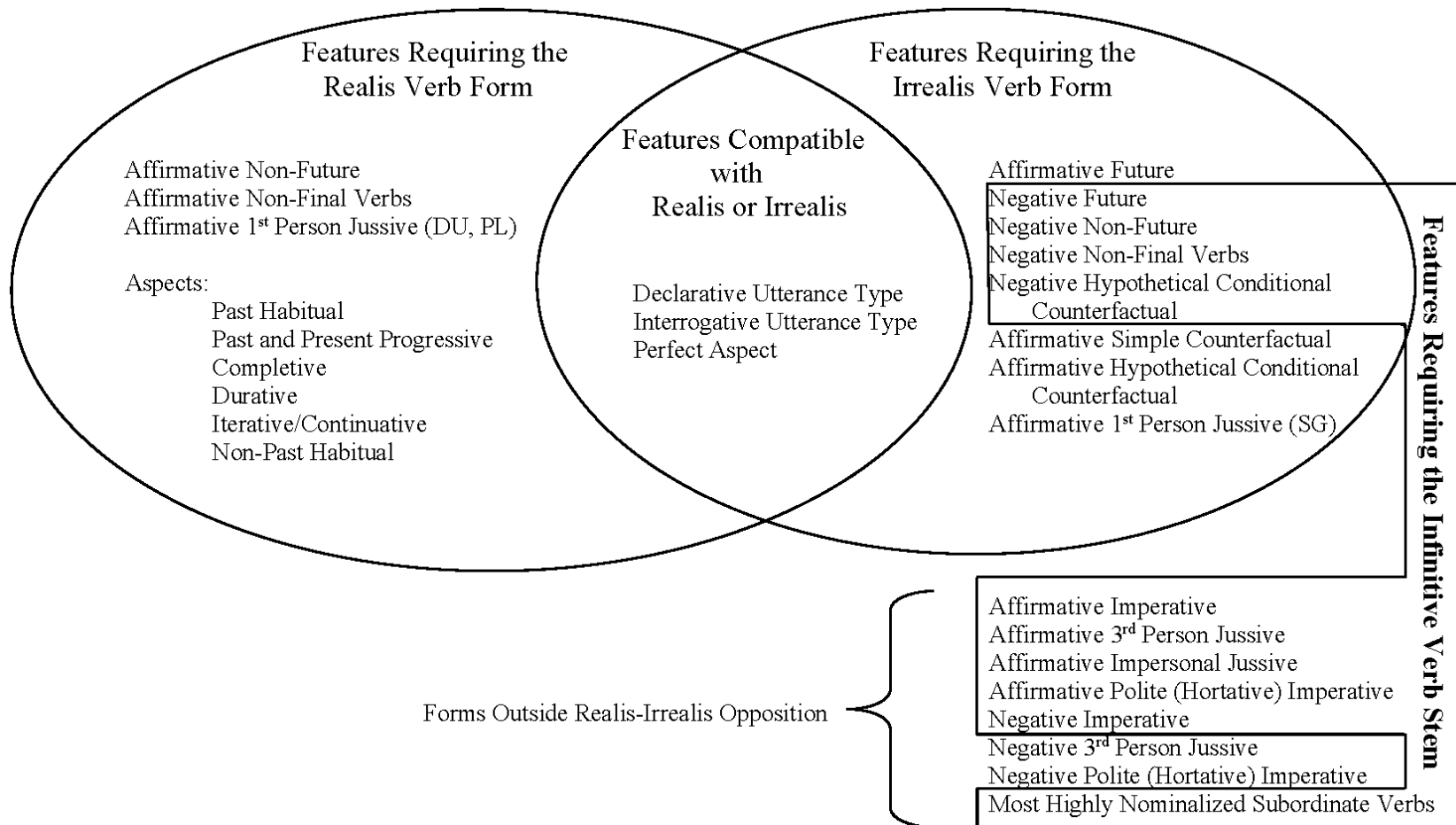
As represented in Figure 1, infinitive stems are used in various types of verbal constructions, ranging from the more nominalized subordinate complements, to final verbs that do not take tense marking (e.g. imperatives/jussives), to negative declarative and interrogative final verbs, which, apart from their required infinitive stems, appear to be otherwise fully finite.



**Figure 1: A nominal-finite continuum of infinitive verb stem usage**

In declarative and interrogative final verbs, infinitive stems are only found in negatives (which always involve the irrealis verbal construction) (see Figure 2, reproduced from M. Ahland 2012: 366).<sup>9</sup> Affirmative realis (non-future) and irrealis (future) verbs require finite stems. Many affirmative imperative and jussive forms require infinitive verb stems, indicated by the boxed section (Figure 2). The reason for this likely involves differing grammaticalization pathways. There must be a reason why the infinitive stem requirement is only associated with negative constructions that utilize the irrealis verb (regardless of morphological tense marking), with certain imperative and jussive constructions, and with most highly nominalized subordinate verbs. This distribution attests to a nominalized history for these negative, imperative, and jussive constructions.

<sup>9</sup> The realis and irrealis verb constructions are formed with different item-arrangements in terms of morphology—see §3.3, below. The left-most ellipse lists features which are associated only with the realis verb form, while the right-most ellipse lists features associated with the irrealis verb form. The shared center lists those features which are compatible with both realis and irrealis verb forms. Additional verb constructions which do not involved the realis nor the irrealis verb form are listed at the bottom of Figure 2.



**Figure 2: The distribution of infinitive verb stems and the intersection with the realis-irrealis opposition**

Before turning to the use of the infinitive verb stems in finite final verbs, the use of the finite verb stem is briefly illustrated in the data below: affirmative declarative non-future (realis) (52), declarative future (irrealis) (53), interrogative non-future (54) and interrogative future (55) (both irrealis).

(52) *ha-tí-héz-á*

AFF-1SG-hit-DECL

‘I hit (it).’

(53) *ha-héz-gà-t-bíj-á*

AFF-hit-FUT-1SG-NPST:AUX-DECL

‘I will hit (it).’

(54) *tí-héz-à:* / *ha-tí-héz-â:*

1SG-hit-INTR

AFF-1SG-hit-INTR

‘Did I hit (it)?’

‘Did I hit (it)?’

(expecting an affirmative response)

(55) *héz-gà-t-bíj-â:*

hit-FUT-1SG-NPST:AUX-INTR

‘Will I hit (it)?’

### 3.1.1. The negative construction

Unlike the affirmative declarative and interrogative examples in (52-55), examples (56-60) illustrate the corresponding negative constructions (non-future and future) which require the use of the infinitive verb stem.

(56) *hez-á-tí-bíj-á*

hit:INF-NEG-1SG-NPST:AUX-DECL

‘I did not hit (it).’



- (57) *hez-á-gà-tí-bíf-á*  
 hit:INF-NEG-FUT-1SG-NPST:AUX-DECL  
 ‘I will not hit (it).’
- (58) *hez-á-hì-bíf-à:*  
 hit:INF-NEG-2SG-NPST:AUX-INTR  
 ‘Did you not hit (it)?’
- (59) *hez-á-gà-t-bíf-à:*  
 hit:INF-NEG-FUT-1SG-NPST:AUX-INTR  
 ‘Will I not hit (it)?’

Apart from the requirement of the infinitive verb stem, the negative final verbs appear to be fully finite today (e.g. exhibiting a tense distinction and utterance type/speech act marking).

The organization of the internal morphology of the negative verb in (56-59), suggests that it developed from a periphrastic structure like (60). The bifurcation of negatives into future and non-future constructions appears to be a later development and is discussed in §3.3, following the discussion of the affirmative future’s development.

Hypothesized source for negatives				
Subordinate structure		Final verb		
(60)	[INF stem] + -á SUB	SBJ-Existential verb-DECL		
	<i>hez</i> -á	<i>tí-</i>	<i>bíf</i>	-á
	hit:INF      -NEG	1SG-	EXIST	-DECL
	‘I did not hit (it).’ (< I was not hitting.) (from ex. 56)			

The negative verb then appears to have begun as a nominalized complement (an infinitive with a subordinating morpheme that was later reanalyzed as a negative) followed by a fully finite final existential verb with subject prefixes.<sup>10</sup> This periphrastic structure presumably then collapsed into the single verbal word observed today

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<sup>10</sup> The use of lexical verbs with infinitive stems in auxiliary-headed constructions is quite common cross-linguistically (Anderson 2006: 56).

(see §3.3).

### 3.1.2. Imperative and jussive utterances

As noted in Figure 2, infinitive stems are also required in certain imperative and jussive constructions. Unlike the other constructions we have seen, however, the infinitive stems in (61-63) are used in affirmative constructions.

(61) *hez-í*

hit:INF-2SG:IMP

‘Hit (it)!’

(62) *há-hez-í*

IMPR-hit:INF-2SG:IMP

‘Hit (it)!’ (polite)

(63) *há-hez-t-í-nè*

IMPR-hit:INF-JUSS-3-NPST:AUX

‘Let it hit (it).’

Infinitive and jussive forms do not carry tense or aspect marking in Northern Mao—which all other final verb forms do carry. That said, however, infinitive forms do all carry subject markers which also serve to indicate the utterance type. These verbs, like all other final verbs, indicate the end of a sentence, unless a coordinating conjunction is employed.

With respect to the jussive construction in (63), the /ne/ form in the impersonal jussive (63) is a recognizable copula in Northern Mao (64) (M. Ahland 2012: 463).

(64) *wè:ŋk’ nè*

be.open:INF be.NPST

‘It is open.’

The /há-/ impersonal prefix in the impersonal jussive construction in (63) as well as on the polite imperative in (62) may derive from an old demonstrative which gave rise to a 3<sup>rd</sup> person marker in other Mao

languages (Bender 2000: 206 and M. Ahland 2012: 245-6; Ahland 2015);<sup>11</sup> the /-t/ JUSS is likely derived from or related to the /-(i)t/ relativizer (reanalyzed as a jussive construction marker). The hypothesized source construction in (65) illustrates the demonstrative + relativized infinitive stem (nominal) as a predicate, which is then followed by a copula.

	Hypothesized source for jussive construction		
	Modified Headless Relative (nominal)		Final verb
(65)	DEM [[INF] + -(i)t REL]		SBJ-Copula
	<i>há hez -t</i>		<i>í- nè</i>
	DEM hit:INF -REL		3- COP
	‘It is that which hit / It is that hitting.’ > ‘Let it hit (it).’		
	(similar to ex. 63)		

The jussive source in (65) is represented as having been a headless relative clause (i.e. a nominal). The fact that the relativized stem is in the infinitive form suggests that the demonstrative would very likely not have been an argument of the relative clause. Perhaps the /há/ demonstrative was a modifier of the relativized predicate.

The imperative construction exhibits the only final verb in the language which uses an infinitive stem where there is no other recognizable verb stem.<sup>12</sup> It is not clear if an older verbal stem atrophied and disappeared or if this represents a different grammaticalization pathway.

The imperative construction (66) is unique in NM in that both the affirmative and negative polarities require the infinitive verb stem.

(66)	<i>hez-áf-í</i>
	hit:INF-NEG-2SG:IMP
	‘Do not hit (it)!’

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<sup>11</sup> Reflexes can be found throughout the Mao subgroup and the form is still used in Seezo /hán/ (Girma Mengistu 2015); a reflex is also found in Hozo /ʔá/ 3SG masculine (Getachew Kassa 2014).

<sup>12</sup> In the impersonal jussive, for example, the /nè/ form itself appears to derive from a copula verb.

### 3.2. Relativization and the past progressive construction

The progressive constructions involve a periphrastic construction where a lexical verb is followed by an auxiliary verb. In the past progressive, the lexical verb obligatorily carries the /-(i)t/ relativizer (67-68).

- (67) *hí-kí-èt            ha-tí-mí-t            bitè*  
 3SG-come-TI:NF AFF-1SG-eat-REL PST:AUX  
 ‘I was eating when s/he came.’

- (68) *ha-jé:ts’-ìt    bitè*  
 AFF-run-REL PST:AUX  
 ‘S/he was running.’

In fact, in the past progressive there are two cases of historical relativization. The past copula form /bitè/ is itself a relativization of the existential verb /biʃ/ (cf. M. Ahland 2012: 318; 461-2 and the highlighted form in (69)): /biʃ -t/ > /bi-t/ EXIST-REL. In (69)’s matrix clause, the cleft with present meaning requires no copula (i.e. a zero copula), while in (70), the past copula is used (in this instance, the form /bitè/ is not a functional auxiliary).

- (69) *[[nà-àt    **bi-t**]<sub>RC</sub>            ʃak’-è]<sub>NP</sub>    Ø*  
 here-LOC EXIST:INF-REL goat-TV    be.PRES  
*[tí-pí-t-ìʃ-é]*  
 1SG-kill-REL-SBJ-TV  
 ‘It is the goat that was here that I killed.’

- (70) *[[nà-àt bi-t]<sub>RC</sub> sak']<sub>NP</sub> bitè* (<bi-t-è)  
 here-LOC EXIST:INF-REL goat be.PST  
*[tí-pí-t-ìf-é]*  
 1SG-kill-REL-SBJ-TV  
 ‘It was the goat that was here that I killed.’

The past copula form is a frozen form like all other Northern Mao copulas today (M. Ahland 2012: 465).

Interestingly, the non-past progressive construction appears to have developed via a slightly different pathway: 1) there is no hint of relativization and 2) the auxiliary is the non-relativized existential (71).

- (71) *to:lo ha-tí-mí bif-á*  
 now AFF-1SG-eat NPST:AUX-DECL  
 ‘I am eating now.’

In sum, while the non-past progressive shows no overt morphological indication of nominalization in its history, the past progressive construction does and may have developed from a nominal + nominal predication (relativization + relativization), as in (72):

- Hypothesized source for past progressive  
 Relative clause                      Relative clause  
 (72) [SBJ-finite] + -(i)t REL      [EXIST INF] + -(i)t REL + TV  
*ha- tí- mí -t bit-è*  
 AFF- 1SG- eat -REL EXIST:INF-REL-TV  
 ‘I was eating.’

Alternatively, it could be that the /bitè/ auxiliary was already grammaticalized as a past copular form--it is difficult to know whether the form was still functioning as a relative clause at the time the past progressive developed. Either way, the lexical verb was clearly expressed, as it is today, within a preceding (nominalized) relative

clause.<sup>13</sup>

### 3.3. The irrealis future verb construction

Northern Mao’s final future (irrealis) verb also developed from a nominal subordinate clause. The lexical verb was marked with a subordinator and was followed by a final existential verb (an AUX-headed construction, see Anderson 2006: 39ff). The subordinator was then reanalyzed as a future tense suffix. The entire periphrastic construction collapsed phonologically, resulting in a complex final verb with contained internal relics of subordinator and related subject marking. (see Ahland 2014b for details).

Table 4 and example (73) illustrate the structure of the realis verbal word.

Inflectional prefixes		Finite stem	Derivational suffixes		Inflectional suffixes				
(Affirmative)	Subject prefix		(Valence decrease)	(Applicative)	(Perfect)	(Non-singular)	(Past habitual)	(Hearsay)	Utterance type

**Table 4: Realis verb item-arrangement (from Ahland 2014b: 3)**

- (73) *kwalla ha-tí-jéts’-á*  
 yesterday AFF-1SG-run-DECL  
 ‘I ran yesterday.’

Table 5 and example (74) illustrate the structure of the irrealis verbal word.

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<sup>13</sup> As noted in §2.2, the use of subject marking on relativized verbs requires the use of the finite stem even though the clause is still nominalized via the relativizer.

Inflectional prefix	Finite stem	Derivational suffixes		Inflectional suffixes						
(Affirmative)		(Valence decrease)	(Applicative)	(Perfect)	(Non-singular)	Future suffix	Subject suffix	Auxiliary	(Hearsay)	Utterance type

**Table 5: Irrealis future affirmative item-arrangement (from Ahland 2014b: 4)**

Example (74) illustrates the irrealis verbal word.

- (74) *háts'á*      *ha-jé:ts'-gà-t-bíj-á*  
tomorrow    AFF-run-FUT-1SG-NPST:AUX-DECL  
'I will run tomorrow.'

The primary differences between the realis and the irrealis verbal words involve the position of subject markers (prefixes on realis verbs and suffixes on irrealis verbs) as well as the presence of an auxiliary verb on the irrealis verbal word.

In order to understand the history of the irrealis verb, it's important to note that today's future tense suffix /-gà/ is similar to a purposive subordinate marker /-gàj/ found on purpose adverbials (75) as well as on some complements (76) (cf. §2.3 above).

- (75) [*kà:l-là*      *míj-gàj*      *tí-kí-ti-á*  
porridge-OBJ eat-PURP    1SG-come-PF-DECL  
'I have come to eat porridge.'

- (76) *mì-gàj-nà*      *ha-tí-ts'é:l-á*  
eat:INF-COMP-OBJ    AFF-1SG-finish-DECL  
'I finished eating.'

It has been argued that purpose clauses are “intrinsically future-oriented” (Schmidtke-Bode 2009: 43). In fact, purpose clauses

and their matrix verbs are an attested source of future constructions across many of the world's languages (2009: 181). These complex constructions undergo grammaticalization such that the matrix verb becomes an auxiliary.<sup>14</sup> This is what appears to have taken place in NM's irrealis future verb construction.

Before discussing the reconstructed source construction for NM's irrealis future verb, it should be noted that the future tense suffix /-gà/ appears to have been /-gàm/ at an earlier stage in its development. Internal irregularities found in the future relative clause preserve what appears to be an older [m] /-gàm/ (77) (cf. Ahland 2014b: 10).

(77) *ha-tí-kí-gàm-b-t*

AFF-1SG-FUT-NPST:AUX-REL

'that I will come'

This old [m] is a significant part of the development of the irrealis future verb: the [m] has impacted the subject marking paradigm by intruding into 3<sup>rd</sup> person and 2SG marking in all constructions where today's future tense marker is found (see shaded cells of Table 6).

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<sup>14</sup> Bybee et al. (1994: 263-75) note how purpose clauses and concepts such as 'intention' and 'desire' are "compatible or harmonic" with the grammaticalization of future tense.



Free pronouns	Realis prefixes	Irrealis non-future (NEG) suffixes	Irrealis future (AFF and NEG) suffixes
1SG tí-jé	tí-	-tí	-t´
1DU han-é	han´-	-n´	-n´
1PL hamb èl-è	ham`-	-m`	-m`
2SG hì-jè	hì-	-hì	-èm
2DU háw-é	háv-	-w´	-´ (H Tone)
2PL hàwèl -è	hàw-	-w`	-` (L Tone)
3SG íj-è	Ø-	-Ø-	-m`
3DU íj- kuw- e	Ø- /- and/	-Ø- /-and/	-m` /-and/
3PL íj- kol-è	Ø- /- and/	-Ø- /-and/	-m` /-and/

**Table 6: Free pronouns and subject marking on final verbs (Ahland 2014b: 7)**

The distribution of the intrusive [m] relative to subject marking is discussed following the introduction of the reconstructed source construction.

Given that complex constructions of the type purpose clause + matrix verb are an attested source of future tense constructions and given that NM's irrealis future verb construction preserves an old subordinator positioned before an old subject-marked existential (>auxiliary) verb), it appears that irrealis (and future temporality) was expressed through a periphrastic construction like the reconstruction in (78) (adapted from Ahland 2014b: 11).<sup>15</sup>

<sup>15</sup>

It is assumed that since affirmative future irrealis verbs exhibit only finite verb stems today, the /-gám/ form must have attached only to the finite form. Today, however, both finite and infinitive stems can be observed with the /-gà/ subordinator, depending on the degree of finiteness of the subordinate clause (cf. M. Ahland 2012: 629).

- Hypothesized source for future irrealis  
 Subordinate structure      Final verb  
 (78) *kí-gàm*                       $\emptyset$ -*bíʃ-á*  
 come-SUB/PURP                      3SG-EXIST-DECL  
 Literal reconstructed meaning: ‘S/he is in order to come.’  
 (reconstructed effective force: ‘S/he intends to come.’)

The old purpose subordinator /-gàm /was reanalyzed as a future tense marker. Its final [m] was lost before all initial consonants (except for [h], which didn’t trigger a deletion of [m]) on the following subject marker (probably as the entire phrase collapsed into a verb) (79- 80). The motivation for such a loss could have been consonant cluster simplification. Certainly three consonant sequences of this sort in NM are not attested.

- (79) *ha-kí-gà-t-bíʃ-á*  
 AFF-come-FUT-1SG-NPST:AUX-DECL  
 ‘I will come.’

- (80) *ha-kí-gà-n-bíʃ-á*  
 AFF-come-FUT-1DU-NPST:AUX-DECL  
 ‘We (dual) will come.’

In the instances where the [m] was not lost due to consonant cluster simplification, it became associated with subject person marking (81- 82).

- (81) *ha-kí-gà-m-bíʃ-á*  
 AFF-come-FUT-3-NPST:AUX-DECL  
 ‘S/he will come.’

- (82) *ha-kí-g-əm-bíʃ-á*  
 AFF-come-FUT-2SG-NPST:AUX-DECL  
 ‘You (singular) will come.’

These facts suggest that the nominal history of the irrealis

future verb impacted not only the verbal construction itself but also the subject marking paradigm.<sup>16</sup> And this impact includes the subject markers found on the negative future verb, which also shows the same intrusive [m] interference as the affirmative future (Table 6; and M. Ahland 2012: 385, for complete illustrative examples).

After the reanalysis of the /-gàm/ form (from subordinator > FUT suffix) and the formation of the new subject markers, the future tense marker, along with the new subject marking patterns, was analogically extended to the negative periphrastic construction, resulting in two distinct forms: a negative future and negative non-future. One may assume that if the analysis of the /-á/ negative marker having been derived from a subordinator is accurate, there would have been no need for another subordinator such as /-gàm/ (before its reanalysis) on the lexical infinitive form in the negative source construction (see ex. 60). This supports the extension taking place after reanalysis. Also, the morphological differences between the negative future and non-future verb forms suggest that the collapse of the non-future form from a periphrastic construction to a single verbal word occurred after the future/non-future distinction developed. While the negative future matches the affirmative future in subject marking and auxiliary patterns (compare 82 with 83), the negative non-future construction exhibits irregularities: an unreduced 1SG marker (84), an unexpected downstep on the declarative suffix (84-85), and an altogether different negative suffix and copular auxiliary for 3rd person forms (86) (see M. Ahland 2012: 384-5 for complete details).

- (83) *ki-á-g-əm-biʃ-á*  
 come:INF-NEG-FUT-2SG-NPST:AUX-DECL  
 ‘You (singular) will not come.’

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<sup>16</sup> This new, altered subject marking paradigm (with the intrusive [m] from the old subordinator) was even extended into new verbal constructions. Today’s purpose / complement subordinator /-gàʃ/ perhaps lost the old [m] in a similar manner: as a result of phonotactically-motivated simplification before the initial consonant of a following relational noun / postposition /-ʃal/ ‘way,’ of which only the [ʃ] remains (cf. Ahland 2014b: 14).

- (84) *ki-á-tí-bíj-á*  
 come:INF-FUT-1SG-NPST:AUX-DECL  
 ‘I didn’t come.’
- (85) *ki-á-hì-bíj-á*  
 come:INF-FUT-2SG-NPST:AUX-DECL  
 ‘You (singular) didn’t come.’
- (86) *ki-wé-jà*  
 come: INF-NEG-COP  
 ‘S/he did not come.’

## 4. Final considerations

The NM data provide additional support to the typological and historical claim that fully-finite constructions can derive from nominalized structures (Gildea 1993; Heine 1993; Anderson 2006 & 2011; DeLancey 2011). In fact, coherent explanation of NM’s synchronic, finite final verb structures cannot be achieved without positing a nominal history for the negative declarative and interrogative constructions, imperatives, jussives, past progressives, and irrealis future tense constructions. Apart from such a historical analysis, various irregularities (which are themselves historical footprints) would escape explanation: why is it that some constructions should require infinitive verb stems? Why should forms that clearly resemble subordinators (purpose markers and relativizers) appear internal to verbal word-forms, and why should there be fused copulas and existentials in forms that now function as finite final verbs?

Givón has noted that languages which place complements (including clauses) immediately adjacent to verbs, such as NM’s cross-constructural OV pattern, co-lexicalization and clause-union can result (Givón 2009: 74); this is the pattern that is seen repeatedly in the NM developments above. That said, within the languages of Ethiopia, historically nominal sources for finite structures are by no means limited to the OV pattern. Both VO and OV languages provide clear evidence of old nominalizations embedded in what are today finite structures. In Gumuz (Nilo-Saharan), which exhibits a

predominantly VO pattern, the future tense construction derives from a nominalized purpose construction, with the old /mà-/ nominalizer still present in the new finite construction (C. Ahland 2012: 444). Such nominal sources are commonly found in Amharic (Ethiopian-Semitic) as well, where finite perfect verb forms carry nominal possessive suffixes, positioned before an existential (> auxiliary) (Leslau 1995: 387).

### Abbreviations

The abbreviations used here generally follow the Leipzig Glossing Rules. Where two abbreviations must be combined to form a complex gloss for a single form, the two are joined with a colon (e.g. NPST:AUX, non-past auxiliary form).

1	First person	IMPR	Impersonal	PROX	Proximal
2	Second person	INF	Infinitive	PRES	Present
3	Third person	INTR	Interrogative	PST	Past
AFF	Affirmative	JUSS	Jussive	PURP	Purposive
AUX	Auxiliary	L	Low tone	RC	Relative clause
COMP	Complementizer	LOC	Locative	REL	Relativizer
COP	Copula	M	Mid tone	SBJ	Subject case
DECL	Declarative	NEG	Negative	SG	Singular
DEF	Definite	NF	Non-Final / Medial verb	SOURCE	Source locative
DU	Dual	NP	Noun phrase	SS	Same subject
EXIST	Existential verb	NPST	Non-past	SUB	Subordinator
FUT	Future	NSG	Non-singular (dual and plural)	TI	Temporally integrated
GEN	Genitive	OBJ	Object case	TV	Terminal vowel
H	High tone	PASS	Passive		
HRSY	Hearsay	PF	Perfect		
IMP	Imperative	PL	Plural		

### References

Ahland, Colleen. 2012. *A grammar of Northern and Southern Gumuz*.

- Eugene, OR: University of Oregon. (PhD dissertation).
- Ahland, Michael. 2009. Aspects of Northern Mao phonology. *Linguistic Discovery* 7. 1-38.
- Ahland, Michael. 2012. *A grammar of Northern Mao (Màwés Aas'è)*. Eugene, OR: University of Oregon. (PhD dissertation).
- Ahland, Michael. 2014a. Interactions between tone and morphosyntax in Northern Mao. (Paper presented at the 45th Annual Conference on African Linguistics, as part of the Workshop on Africa's Endangered Languages, University of Kansas, April.)
- Ahland, Michael. 2014b. Subject marking interrupted: Perturbations from the development of Northern Mao's future tense suffix. *Studies in African Linguistics* 43.2. 1-16.
- Ahland, Michael. 2015. The history of 'ha': How Ganza sheds light on the development of person marking in Northern Mao (*Màwés Aas'è*). (Paper presented at the 43<sup>rd</sup> Annual North American Conference on Afroasiatic Linguistics (NACAL), Georgetown University, February.)
- Anderson, Gregory D.S. 2006. *Auxiliary verb constructions*. Oxford: Oxford University Press.
- Anderson, Gregory D.S. 2011. Auxiliary verb constructions in the languages of Africa. *Studies in African Linguistics* 40 (1-2): 1-409.
- Bender, M. Lionel. 2000. Comparative morphology of the Omotic languages. Muenchen: Lincom Europa.
- Bybee, Joan, Revere Perkins, & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago and London: The University of Chicago Press.
- DeLancey, Scott. 2011. Finite structures from clausal nominalizations in Tibeto-Burman. In Foong Ha Yap, Karen Grunow-Hårsta, & Janick Wrona (eds.), *Nominalization in Asian languages: diachronic and typological perspectives*, 343-360. *Typological Studies in Language*, 96. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Getachew Kassa. 2014. *A grammar of Hozo*. Addis Ababa: Addis Ababa University. (PhD dissertation). (draft of manuscript)
- Gildea, Spike. 1993. The rigid VS order in Panara (Cariban): A historical explanation. *International Journal of American Linguistics* 59. 44-63.
- Girma Mengistu. 2015. *A grammar of Seezo*. Addis Ababa: Addis Ababa University. (PhD dissertation).
- Givón Talmy. 2001. *Syntax: An introduction* (vol. 2). Amsterdam/Philadelphia: John Benjamins Publishing Company.

- Givón, Talmy. 2009. The genesis of syntactic complexity: Diachrony, ontogeny, neuro-cognition, evolution. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Heine, Bernd. 1993. Auxiliaries: Cognitive forces and grammaticalization. Oxford: Oxford University Press.
- Leslau, Wolf. 1995. A reference grammar of Amharic. Wiesbaden: Otto Harrasowitz.
- Noonan, Michael. 1997. Versatile nominalizations. In Joan Bybee, John Haiman & Sandra A. Thompson (eds.), *Essays on language function and language type: Dedicated to T. Givón*, 373-394. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Schmidtke-Bode, Karsten. 2009. A typology of purpose clauses. *Typological Studies in Language*, 88. Amsterdam/Philadelphia: John Benjamins Publishing Company.