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Nominalization, relativization, and attribution in Lotha, Angami, and Burmese*

Susan C. Herring
California State University, San Bernardino

Lotha Naga, Angami Naga, and Burmese are Tibeto-Burman languages spoken in a region which includes Burma (Burmese) and the northeast Indian state of Nagaland (Lotha and Angami). In these languages, as in Tibeto-Burman more generally, grammatical subordination typically involves nominalization.[1] In this paper, we will be concerned with three types of nominalized structures:

i) Relative clauses (e.g. 'The boy *who is eating bananas*...')
ii) Attributive adjectives ('The *fat* boy...')
iii) Sentential complements ('...likes *to eat bananas/eating bananas*')

Also included in the third category are Purpose and Reason clauses, with or without an overt complementizer (e.g. 'He came (in order) *to eat a lot of fried bananas*'; 'He got sick from (because of) *eating too many bananas*').

What such apparently diverse grammatical phenomena have in common is that in each — at least in the three languages considered here — a verb or verbal clause is subordinated to a head element (an NP in the relative and attributive types, and a VP in the case of sentential complements) by means of nominalization. Nominalized sentential complements are a common phenomenon in English, and thus pose no conceptual difficulty for the English-speaking linguist. Relative and attributive clauses, on the other hand, are not adjectival, as one might expect, but rather function in some sense as nominal appositives (e.g. 'the [banana-eating one] boy'; 'the [fat one] boy').

The tendency to nominalize embeddings holds across the language family as a whole. However, individual Tibeto-Burman languages vary in the number of different nominalizers they employ, and in the kinds of distinctions these encode. Angami Naga and Burmese are good examples of the opposite extremes of differentiation that can be found. In Angami, all of the subordination types mentioned above are effectuated by means of a single nominalizing morpheme, kə̀-. In Burmese, by contrast, the expression of relativization, attribution, and sentential complementation

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1 See for example Matisoff (1972).

involves no fewer than seven distinct nominalizing forms.[2] In addition to distinguishing categorically between the various grammatical types of embedding (relative clause vs. sentential complement, etc.), these forms systematically indicate whether the situation expressed by the embedded clause is aspectually *realized* or *unrealized*. Burmese nominalizers thus grammatically encode distinctions which in Angami must be derived from context or specified by means of additional (e.g. aspect) morphology.

In between these two extremes lie most other Tibeto-Burman languages, including Lotha Naga. In Lotha, two formally distinct nominalizers cover the same functional territory as that of Angami kə̀- and the seven Burmese embedding nominalizers. However, while the meaning distinctions encoded by the Burmese forms are highly systematic, the functional constrast between the two Lotha forms appears to resist systematic description. Given English-based sensibilities and the grammatical subordination types mentioned above, one might predict that the two markers would be used to distinguish formally between NP-modifying types (i.e. relative and attributive clauses) and those that modify VP's (sentential complements). However, such is not the Lotha situation. Rather, the available evidence suggests that the two forms are used, at least in one area of the grammar, to contrast realized and unrealized embeddings, as in Burmese. The evidence for this observation, as well as its implications for language change, are considered in what follows.

1. Angami

We will begin by considering the Angami system. As mentioned above, Angami has a general nominalizer kə̀- which is employed in a diversity of functions: to derive gerundives and abstract nouns from verbs, to subordinate relative clauses and adjectival verbs to nominal heads, to embed sentential complements, and to derive deverbal adverbs. kə̀- is prefixed either directly onto the verb, or onto the clause-final verbal marker (VM) if one is present. When the nominalizer attaches directly to the verb, the resulting form, taken out of context, may have several possible interpretations; for example kə̀mə̀sā, (from mə̀sā 'to clean') could mean either 'cleaning' (gerundive), 'cleanliness' (abstract noun), 'clean' (attributive adjective), 'cleanly' (adverb), or, when followed by a definite article, 'the clean one' or 'one who cleans'!

Of course, structural and semantic factors help to distinguish between these functions in actual contexts of use. In **relative clause** constructions,

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[2] This figure does not represent the total number of nominalizers in Burmese; however, for the purposes of this paper I am only considering those which correspond to the basic grammatical subordination types identified in the first paragraph.

verbal markers (VM's) indicating tense, aspect, valency, etc. are common, and kè- attaches to these rather than to the verb. Relative clauses are further distinguished by the presence of a definite article (e.g. ù 'masculine/inanimate singular'), or head noun + definite article, following the nominalized clause. Examples of Angami relative clauses are given in (1) - (3) below:

1) [mhà lē kè- bá] *thēmiẹ̲* ù...
thing think NZR- VM man the
'*The* man who thinks...'

2) [thēmiẹ̲ ù *lēsōda* ù pyè mèrànyò u tsẹ̲ kè-va] ù..
man the book the take orphan the give NZR-VM the
'*The book* the man gave to the orphan...'

3) *tshẹ̲* [gī kè-liẹ̲] ù... or
[tshẹ̲ gī kè-liẹ̲] Ø ù...
animal kill NZR-VM the
'*The animal* that was killed...' or
'*The one* who killed an animal...'

Head nouns in Angami relative constructions commonly appear to the right of the relative clause, as in (1), although they may also be clause-internal, as in (2). Left-headed and headless relatives are also found; example (3) is ambiguous, depending on whether the relative head is taken to be the overt nominal tshẹ̲ 'animal', or whether the clause is interpreted as headless ('the one').

What is also to be noted in these examples is aspect marking in the embedded clause. Aspect is indicated by means of VM's — e.g. bá 'stative' and liẹ̲ 'resultative' — rather than through the choice of nominalizer, which remains kè- throughout.

Adjectival modification in Angami is similar to relative modification, except that while relative clauses may be either left- or right-headed, the head in adjectival constructions is always to the left. A further difference is that the nominalizer kè- is prefixed directly to pure 'adjectival' verbs such as sa 'be new', zīvī 'be beautiful', etc.

4) kí [kè- sa] ù...
house NZR-be.new the
'The new house...'

5) kí [kà- zá] [kà- zīvī] ù...
house NZR-be.big NZR-be.beautiful the
'The big, beautiful house...'

When other than adjectival verbs are involved, however, VM's may be part of the embedding, and kà- attaches to these. In such cases, the distinction between relative and adjectival modification is largely blurred, although word order (head-modifier vs. modifier-head) still influences whether the construction receives a relative or an adjectival interpretation.

6) [kí- nù kà- bá] tèpfé ù...
house-loc NZR-VM dog the
'The dog that is in the house...'

7) tèpfé [mēziē kà- tá] ù...
dog be-tired NZR-VM the
'The tired dog...'

In general, head-modifier order (as in the 'adjectival' construction in (7)) is preferred when the attributed state is viewed as inherent or internal to the person or thing modified, and modifier-head order (as in the 'relative' construction in (6)) is preferred when the attributed situation is viewed as circumstantial or external to the person or thing modified.[3]

Another important function of Angami kà- is the nominalization of **sentential complements**. As with relative clauses, the nominalizer attaches to the VM of the subordinate clause, which precedes the verbal 'head' that embeds it. The same construction is employed regardless of whether the complement functions as subject (ex. (8)) or object (exx. (9) - (10)) of the matrix sentence, and regardless of the aspectual value of the subordinate clause (generic in (8); unrealized in (9); realized in (10)):

8) [thèvǫ- tshə tsǫ pèkrā kà-tsā] kèmìciè bá.
pig- flesh eat a lot NZR-VM danger have
'[Eating too much pork] is dangerous.'

9) [puǫ tiǫ kà-tiǫ] ā mərɛ bá.
3s go NZR-VM 1s hope VM
'I hope [that she will go].'

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3 Cf. Egerod (1991: 375) for an observation relating this phenomenon to Tibeto-Burman as a whole.

10) ā [puo̲ tatsu kə̀-tsə̄] ŋu.
1s 3s fall NZR-VM see
'I saw [him fall].' (lit. 'his falling')

Purpose and cause complements follow essentially the same pattern, with the additional stipulation that the 'reason' (RE) complementizer lá directly follows the nominalized complement.

11) [kuo khrə̀ kə̀-tio̲] lá ā asiezəpfə́ kètsə̄ sə̀ té.
fish buy NZR-VM RE 1s younger.sister send VM VM
'I sent my sister [to buy fish].' (lit. 'for fish-buying')

12) ā è [cha tio̲ pèchā kə̀- tá] lá mēziē té.
1s TOP path go long NZR-VM RE be.tired VM
'I'm tired from [walking so long].'

Note that what crucially distinguishes 'purpose' from 'cause' in constructions of this type is the aspectual value of the VM (tio̲ 'future; unrealized' vs. tá 'change-of-state; realized') in the embedded clause.

2. Lotha

Lotha Naga shares a close genetic relationship with Angami, and the two languages display a number of structural similarities. Not surprisingly, Lotha has an equivalent to Angami kə̀-: the prefix ē-,[4] which functions as a nominalizer in such lexicalized derivatives as ē-vān 'inhabitant' (from vān-ā 'to live'), and in attributive adjective constructions. ē- also appears as a relic in some clausal embeddings.[5] In this latter use, however, it is redundant in function with the more productive clause-final nominalizers -ò and -v̩, which have no functional equivalents in Angami. It is to the description of these productive forms that we now turn.

The morpheme -ò in Lotha subordinates **relative clauses**. As in Angami, the Lotha relative head noun may appear to the left, inside, or to the right of the embedded clause, or it may be deleted altogether. -ò is suffixed to the final morpheme of the embedded clause, which is either the verb or an aspectual auxiliary verb, and is followed by (head noun +) an article, e.g. cí 'definite singular' or cíaŋ 'definite plural'.

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[4] Possibly from the Proto-Tibeto-Burman copula *way. For a discussion of other nominalizing reflexes of this proto-form, see Matisoff (1985).

[5] See examples (13), (19), (34), (36), and (39).

13) [ē-nā ṇcü ōkì ē- wō-ò] *ēpóe* cí...
we yesterday house NZR-go-NZR man def.sg
'The *man* whose house we went to yesterday...'

14) [ē-nā ṇcü *tsāpyóŋ- thì* tsō-ò] cí...
we yesterday mango- fruit eat-NZR def.sg
'The *mango* that we ate yesterday...'

15) *kyón tópfü* [oráŋ pí thāk-ò] cíaŋ...
people all money give finish-NZR def.pl
'*All the people* who already paid...'

16). Ø [oráŋ ṃ- pí ham-ò] cíaŋ...
money neg-give have-NZR def.pl
'*The ones* who haven't paid...'

When the relativized nominal is non-specific in reference, the definite article cí or cíaŋ is replaced with the indefinite article tẏ.

17) [nī-nā *ovon* ṅ- chethe- ò] tẏ zo-.ẏ kà.
you sound neg- recognize- NZR indef.sg hear- FUT decl
'You will hear a *sound* that you will not recognize...'

The same relative marker, -ò, is used regardless of the temporal or aspectual value of the embedded clause. Temporal-aspectual distinctions are indicated in the embedded clause by auxiliaries such as thāk- 'finished, already; completive' (ex. 15), vān- 'live, exist; durative' (ex. 19), and sa- 'intention; inchoative; future' (ex. 20, analogous in function to Angami verbal markers.). When no auxiliary is used (i.e. when -ò is suffixed directly onto the embedded verb), the usual interpretation is that the clause has past time reference, although this interpretation may be cancelled if the temporal frame of the matrix clause favors an alternative interpretation (e.g. future reference as in (17) above).

18) ēpóeróró [yóthì tsō-ò] cí có ā- šom.
boy banana eat- NZR def.sg TOP 1sg-friend
'The boy who ate bananas is my friend.'

19) ēpóeróró [yóthì tsōā ē- vām[6]-ò] cí có ā- šom.
boy banana eat NZR-VM-NZR def.sgTOP 1sg-friend
'The boy who is eating bananas is my friend.'

20) ēpóeróró [ōcüà rō sa-ò] cí có ā- šom.
boy tomorrow come VM-NZR def.sg TOP 1sg-friend
'The boy who will come tomorrow is my friend.'

The arguments for labelling -ò a nominalizer in these examples, rather than a relative marker, will be presented in the section on sentential complements below.

Lotha has not one but three devices for subordinating **attributive adjectives** to nominal heads. The choice of strategy is determined in large part by the adjective selected. Certain adjectival verbs, such as mhén-ā 'to be ripe', form their attributives by prefixing ē-: ē-mhén 'ripe; ripe one; ripeness'. Other attributive forms in ē- (ē-thán 'new; new one; newness'; ē-khəŋ 'brave; brave one') presumably derive from adjectival verbs as well, although the verbs themselves are no longer in common use. (In these and all other Lotha attributive constructions, the head noun precedes the modifying clause, except when the former is deleted.)

21) tsəŋthì [ē- mhén]... (cf. tsəŋthì mhén-ā.
fruit NZR-be.ripe fruit be.ripe-PR
'*Ripe* fruit...' 'The fruit is ripe.')

22) ōsà [ē- thán] cí có ní-chi, [ē- ke] cí
cloth NZR- be.new def.sg TOP you-poss NZR- be.old def.sg
ćó onté ē- chi
TOP they NZR?- poss
'The *new* dress is yours; the *old one* is theirs.'

The second type of attribution involves invariant 'adjectival' forms which contain no overt nominalizing morpheme, yet which function as nouns. Examples of this type are tsəphon 'green (thing)' and ōpyón[7] 'appearance; beautiful (thing)'.

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6 Final -n is often realized as -m before the nominalizer -ò. The same process is evident in example (16): han-ò cian 'the ones who have/had' is from han-ā 'to have'. It is conceivable that this phonological change is a remnant of an earlier stage when verbs in relative clauses were nominalized by means of the suffix -ṿ (han + -ṿ → hanṿ → ham; cf. mhōmṿ-mhōm 'goodness, good thing' from mhōn-ā 'to be good').

7 The presence of the nominal classifier ō- in this word suggests that it is a natural noun.

23) kákò [tsəphon]... (cf. kákò tsəphon.
book green book green
'A *green* book...' 'The book (is) green.')

The remaining attributive adjectives in Lotha are of the third type, which is the most productive of the three in the modern language. It is formed by suffixing the nominalizer -ṵ to an adjectival verb.

24) vōkō [pēlē-ṵ] ... (cf. vōkō pēlē-tā.
pig be.fat-NZR pig be.fat- PR
'A *fat* pig...' 'The pig is fat.')

25) kákò [rákì-ṵ] ēni... (cf. kákò ēni rákì-ā.
book be.red-NZR two book two be.red-PR
'Two *red* books...' 'The two books are red.')

26) [tsəpho-ṵ] cí... (cf. tsəpho-ā.
be.big- NZR def.sg be.big- PR
'The *big one*...' '...is big')

As the following example from Acharya (1983, p.154) shows, a single head noun may be modified by multiple adjectival embeddings.

27) lōksà [ēmyóm] [tsəpho-ṵ] [mhōm] cíaŋ...
basket be.red-NZR be.big- NZR be.good-NZR def.pl
'The good big red baskets...'

(The final -m in ēmyóm and mhōm is a phonologically reduced variant of the sequence -nṵ (see fn.6).) However, in the speech of my informant,[8] there appears to be a purely surface constraint against having more than one -ṵ- marked adjectival verb (i.e. where -ṵ is transparently present) in sequence; that is, while (28) below is fine, neither (29) nor (30) is acceptable.

28) tsəŋthì [tsəpho-ṵ] [ē- mhén] cí...
fruit be.big- NZR NZR-be.ripe def.sg
'The ripe, big fruit...'

29) *vōkō [tsəpho-ṵ] [pēlē-ṵ] cí...
pig be.big- NZR be.fat-NZR def.sg
'The fat, big pig...'

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[8] The majority of the data presented here was elicited from a female informant, aged 20, who is a native of Wokha, the largest town in the Lotha-speaking district of Nagaland.

30) *wōkō [pēlē-ṵ] [tsəpho-ṵ] cí...
pig be.fat-NZR be.big- NZR def.sg
'The big, fat pig...'

Rather, where two adjectival verbs in -ṵ would otherwise co-occur, the final one must take -ò in place of -ṵ.

31) wōkō [tsəpho-ṵ] [pēlē-ò] cí...
pig be.big- NZR be.fat-NZR def.sg
'The fat, big pig...'

or:

32) wōkō [pēlē-ṵ] [tsəpho-ò] cí...
pig be.fat-NZR be.big- NZR def.sg
'The big, fat pig...'

This surface peculiarity of the language is potentially significant. The fact that -ò can replace -ṵ without changing the intended meaning suggests that the meanings of the two morphemes are in some sense synonymous, thereby foreshadowing the problem of descriptive differentiation that emerges when we move on to consider the subordination of sentential complements.

The evidence for characterizing the 'relativizer' -ò and the 'attributivizer' -ṵ as manifestations of a more general 'nominalizing' strategy in modern Lotha comes from the use of both forms to embed **sentential complements**, a grammatical process which involves the objectification or reification of a complete sentential proposition such that it may occupy the functional slot of a NP within a larger sentence. For example, sentence (33) below has as its grammatical subject the embedded proposition sotsə lāŋ-thá chò '(somebody) killed the elephant'.

33) [sotsə lāŋ-thá-ò] cí ēlām ē-noŋrā.
elephant knife.kill- NZR def.sg very we-sad
'The [killing of the elephant] was very sad'.

This example bears a strong similarity to the sentences containing relative clauses above (exx. (13)-(20)). Indeed, the embedded clause in (33), taken in isolation, is equally amenable to a headless relative interpretation, i.e. 'the one who killed the elephant'. According to the latter interpretation, -ò is associated with a single nominal argument (in this case, a null subject) in the embedded clause, while according to the interpretation given in (33), -ò is associated with the entire (nominalized) clause.

Sentential complements nominalized by -ò in my data are usually followed by the definite singular article cí. Example (34) shows that such need not be the case, however:

34) ēmí cí có [ē- khen-ò] nà m̀pó wōkō cí
widow def.sg. TOP NZR-to.fear-NZR from 3sg. pig def.sg
āpfüho pí chò.
Apfuho give PAST
'The widow gave the pig to Apfuho out of [fear](lit. from *fearing*).'

It appears, therefore, that -ò alone has a nominalizing, as well as a relativizing, function.

Sentential complements are also embedded by means of the 'attributive' subordinator -ỵ. Compare (33) above with (35) below:

35) [aŋkami yì n̩sam(-n̩san-ỵ)] có ēlēm khēŋā.
Angami lg. to.speak-NZR TOP very difficult
'[Speaking Angami] is very difficult.'

In both sentences, the nominalized sentential complement functions as grammatical subject of the matrix clause. Yet -ò is the nominalizer used in (33), and -ỵ in (35). What factors determine the choice of -ò or -ỵ?

The analysis I propose is that Lotha employs two distinct nominalizing constructions as a means for distinguishing between 'realized' and 'unrealized' sentential complements.[9] In examples (33) and (35), there is no tense/aspect marking in the matrix clause; the choice of nominalizer (with its attendant structural requirements; see below) is the only formal indicator that the situation described in the embedding in (33) is *realized* in past time (i.e. 'Somebody kill*ed* the elephant'), or that the embedding in (35) is generic, and hence *not realized* in any specific instance (i.e. 'Somebody speaks Angami'). A similar contrast can be seen in the following sentence-pairs:

36) [wōkō-só ēlēm ē- tsō-ỵ] có ēkü- liā.
pig- meat a.lot NZR-eat-NZR TOP danger-have
'[Eating too much pork] is dangerous.' (unrealized)

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9 Cf. Centineo's (1982) analysis of the two forms as embedders of 'factive' and 'non-factive' complements. Centineo argues that the choice between the two is determined by the speaker's degree of commitment to the factivity of the embedded proposition, i.e. as a type of evidentiality. The present analysis differs in taking the basic distinction to be that of *aspect*.

37) [wōkō-só ēlə̄m tsō-ò] cí nà á- ra chò.
pig- meat a.lot eat-NZR the from 1sg be.sick PAST
'[Eating too much pork] made me sick' (lit. 'I was sick from the [eating too much pork.]') (realized)

38) [ōra- é rəmphi-ṿ] có ā- ṅ- chōkā.
forest- LOC stroll- NZR TOP 1sg NEG-like
'I hate [going through the forest.]' (unrealized)

39) [ōra- é rəmphiā ē- wo-ò] cí ā- ṅ- chōkā.
forest- LOC stroll NZR-go-NZR the 1sg NEG-like
'I hated [going through the forest.]' (realized)

If we consider only the embedded complements in each of the examples above, we see that in addition to the -ò/-ṿ alternation, one member of each pair has the nominalizer ē- prefixed to the verb. However the ē- is part of the *unrealized* embedding in (36), and the *realized* embedding in (39); hence it cannot be said to contribute in any systematic way to the realized/unrealized distinction.

The paired sentences are further formally distinguished by the presence of the definite article cí after the realized embeddings, and the topic marker có after the unrealized embeddings. While it is not immediately obvious what connection there might be between the notions of 'topic' and generic/unrealized temporal reference, the presence of the definite article with realized embeddings is clearly related to the notion of 'specificity': realized situations are specifiable in that they are temporally-bounded, one-time occurrences. However the semantic notions 'specific'/'non-specific' cannot simply be substituted for 'realized'/'unrealized', as the following pair of sentences shows:

40) [ōcüà có ēlə̄m eləm-ṿ] {tsə̄kōnā... / kə̄mā ...}
tomorrow TOP very be.hot-NZR for/since
'Since it will be very hot tomorrow...' (unrealized)

41) [nchəŋó ēlə̄m eləm-ò] cí tsə̄kōnā...
today very be.hot-NZR def.sg for/since
'Because it was very hot today...' (realized)

The unrealized embedding in (40) contains a specific, temporally-bound prediction, while the realized embedding in (41) contains a specific, temporally-bound report. Rather than placing undue emphasis on the

semantic contribution of the definite article, therefore, we might simply state that its meaning is generally compatible with — but does not determine — the more basic 'realized' value of the -ò-nominalized clause.

While the Lotha language has no written history, it is possible to venture some speculations as to the origins of its two-nominalizer system, based on both language-internal and comparative evidence. To begin with, given the scattered occurrences of the prefix ē- across a range of nominalizing, relativizing, and attributive functions, it is virtually certain that this form was once Lotha's single all-purpose nominalizer/subordinator, analogous in function to Angami kè-. There are striking structural parallels between Angami relative clauses and Lotha relative clauses in which ē- appears:

42) (Ang) tshe̱ gī kè- li̱e ù...
animal kill NZR- VM def.sg
'The one who killed an animal...'

43) (Lot) yóthì tsōā ē- vām ò cí...
banana eat NZR- VM NZR def.sg
'The one who is eating bananas...'

In both languages, a prefixing nominalizer attaches to the embedded verb or its verbal marker (if one is present); the clause thus modified is followed by a definite article.

It strongly appears as though the Lotha nominalizer -ò had as its source a definite article/demonstrative pronoun -ò or -ù, cognate with the Angami definite article -ù. As the nominalizing force of ē- began to weaken, -ò became increasingly associated with the embedding function,[10] and a fresh series of definite articles (cí, cíaŋ; also ší 'def.sg proximal' and šíaŋ 'def.pl proximal') was coined from other lexical resources. Such an analysis accounts for the genesis of -ò in relative clauses; from there it most probably extended into the domain of sentential nominalization via the ambiguity generated by headless relative constructions such as the one illustrated in (33).

As for -ẏ, the morpheme that functions in the modern language as subordinator of unrealized sentential complements is also the potential aspect or 'future' marker in independent clauses. There is an obvious semantic link here, yet a more explicit relationship may be traced as well. Verbs of locution generally do not take a nominalized complement in Lotha;

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10 Probably originally as a resumptive pronoun ('banana eating *one* [boy]'; see Herring (1985) for examples of similar constructions in Tiddim Chin. This is a further argument for analyzing -ò as a nominizer in relative constructions.

rather, a full aspectually-marked clause — the quoted material — is embedded by means of the quotative complementizer (P_q) tó. There is another important class of verbs, however — primarily verbs of cognition and intention — which embed both direct quotes and nominalized clauses. The propositions embedded by such predicates (e.g. 'hope', 'promise', 'intend', 'decide') are semantically unrealized from the perspective of the matrix clause, and thus when they are presented as direct quotes, the future morpheme -ỵ is used.

44) ā-nā yi-ỵ (tó) echəm-chak chò.
1sg go-FUT (P_q) promise PAST
'I promised that I would go.' (lit. 'I promised, "(I) will go."')

Alternatively, the embedded clause may be nominalized, making use of the subordinator of unrealized sentential complements, -ỵ.

45) ā-nā (ē-) yi-ỵ echəm-chak chò.
1sg (NZR) go-NZR promise PAST
'I promised to go.' (lit. 'I promised (my) going.')

However, the quotative particle tó may be deleted from sentence (44) with no change in meaning, just as ē- is deletable in (45). The result in either case is a sentence in which the role of the morpheme -ỵ is syntactically ambiguous, while remaining however semantically 'unrealized'. Ambiguity often leads to reanalysis, and the function of sentence-final -ỵ may have been extended to that of clausal subordinator in this manner.

Accounting for the use of -ỵ to subordinate attributive adjectives is more difficult. There is nothing inherently 'unrealized' about adjectival modification, any more than all relative clauses are 'realized' (cf. exx. (17) and (20)). -ỵ appears to have simply inherited the attributive function from the older nominalizer, i.e. as a *general* nominalizer, rather than as a nominalizer with a particular aspectual value. Of course, if we assume that -ỵ was *originally* a general nominalizer (cf. Lahu ve, with which it is almost certainly cognate)[11], then its attributive uses are readily explained. However, our task then becomes one of finding a plausible account for the narrowing of a general nominalizer to the nominalization of unrealized sentential complements, and finally, to simple future tense — a route of grammaticalization for which I know of no precedent in any language. Having no definitive evidence with which to settle the issue at this time, I leave the question of whether Lotha -ỵ extended from nominalizer to future tense — or vice versa — as a topic for further research. In the meantime, it

11 < PTB *way; see fn.4.

seems safe to conclude that -ɣ in its nominalizing function came eventually to compete with the relativizer -ò in the domain of sentential embeddings, i.e. as a consequence of parallel but essentially unrelated developments of the sort sketched in the preceding paragraphs. The result was that Lotha began to formally encode a new functional distinction: realized vs. unrealized embeddings.

3. Burmese

In developing a systematic encoding of this distinction, Lotha speakers have moved in the direction of a similar aspectual opposition in Burmese. Burmese marks a binary distinction — realized vs. unrealized aspect — in both finite and embedded clause types. In finite clauses, the sentence-final particles te and me distinguish realized and unrealized situations, respectively. By the addition of creaky tone, the realized relativizer té and its unrealized counterpart, mé, are created. Examples (46) and (47) illustrate realized and unrealized **relative clauses.**

46) [thu htain t̰é] kălahtain...
3sg sit REL_{RLZ} chair
'The chair that he sat on...' (realized)

47) [thu htain mé] kălahtain...
REL_{UNR}
'The chair that he will sit on...' (unrealized)

Also derived from the sentence-final aspectual particles te and me are the nominalizers hta and hma (< te/me + ha 'thing'), used to embed **sentential complements.**

48) [twéi-ya-ḫta] vùntha-pa te.
meet able NZR_{RLZ} happy POL VM_{RLZ}
'(I) was happy [to meet (her)].' (realized)

49) [twéi-ya-ḫma] vùntha-pa me.
NZR_{UNR} VM_{UNR}
'(I) would be happy [to meet (her)].' (unrealized)

Sentential complements expressing purpose and cause also take contrasting subordinators: hpoú, specializing in purpose embeddings, and loú, specializing in cause embeddings. Whereas the Naga languages require two forms — a nominalizer plus a separate general 'reason' complementizer (Angami lá; Lotha tsə̄kə̄nā) — to express these functions, Burmese hpoú

and loú combine syntactic subordination with the semantic nuances of purpose and cause within a single form.

50) thu [ngăpyothì ço amyà-myà sà hpoú] hpe
3sg banana fried very.much eat NZR$_{PURP}$ only
la te.
come VM$_{RLZ}$
'He came just [to eat a lot of fried bananas].' (unrealized)

51) [we?thà ămyà-çì sà loú] nei mă kàun hpù.
pig.meat much eat NZR$_{CAUS}$ exist NEG good VM
'I got sick [from eating too much pork].' (realized)

(cf. Angami examples (11) and (12); Lotha example (37))

The only exception to this thorough-going system of realized vs. unrealized embeddings in Burmese is found with **attributive adjectives.** Adjectives in Burmese are nominalized by means of an invariant morpheme, the prefix ă-,[12] as illustrated in (52).

52) eiñci [ă- pya]...
shirt NZR-be.blue
'the blue shirt...'

The nominalizing force of ă- is further evident from its use to derive gerundives from non-adjectival verbs, e.g. ă-hce? 'cooking' from hce? 'to cook' and ă-hmou? 'blowing' from hmou? 'to blow'.

In all, Burmese employs seven different subordinators in the grammatical functions analyzed here: three realized/unrealized pairs for relativization and sentential embeddings (including purpose and cause embeddings), and a single element for subordinating attributive adjectives. The realized/unrealized aspectual distinction is thus a highly salient feature of the Burmese system.

The subordinating devices discussed thus far for Angami, Lotha, and Burmese are summarized in the table below.

12 < PTB *aŋ

	Angami	Lotha	Burmese
Relative Clauses			
realized:	kə̀-	-ò	[té
unrealized:	kə̀-	-ò	[mé
Sentential Complements			
realized:	kə̀-	-ò	[hta
cause:	kə̀- [lá]	[-ò [cí tsə̄kōnā]	[loú]
	|	[cí nà]	[ ]
unrealized:	kə̀-	[-ṳ	[hma]
purpose:	kə̀- [lá]	-ṳ [tsə̄kōnā]	hpoú]
Attributive Adjectives	kə̀-	-ṳ/ē	a-

4. Discussion

Despite the obvious differences in the degree to which the three languages distinguish formally among the various subordinating functions, it is possible to relate the three conceptually, i.e. as stages along a diachronic continuum. Lotha Naga appears to be in the process of shifting from a single nominalizing subordinator system like that of modern Angami, to a more differentiated system which shows the beginnings of a realized/unrealized contrast, like that of Burmese. Similar to Angami, Lotha shows tense/aspect in relative clauses by means of separate verbal markers, rather than through the choice of grammatical subordinator. Lotha resembles Burmese, however, in having different nominalizers to contrast realized and unrealized sentential complements. In embedded clauses of the latter type, additional aspectual specification is generally lacking.[13]

Despite these general similarities, Lotha and Burmese differ in the particulars of sentential embedding. There is only a partial correlation between the functions of Lotha -ò/-ṳ and Burmese hta/hma. While in Lotha, generic assertions are embedded by the 'unrealized' nominalizer -ṳ, generic assertions in Burmese are treated as 'realized' and take hta. Moreover, purpose and cause complements are encoded as a separate contrast in Burmese (loú/hpoú), while in Lotha they fall under the more general domain of realized/unrealized complements. Hence two very productive areas of 'unrealized' embedding via Lotha -ṳ — purpose clauses (including the complements of verbs of cognition and intention) and generic clauses — fall outside the scope of the Burmese 'unrealized' nominalizer

[13] The prediction might be advanced that if Lotha were to extend its realized/unrealized distinction to relative constructions, aspectual indicators would gradually disappear from relative clauses as well. However such is not the actual case. In relative clause formation, Lotha follows the Angami pattern rather than the Burmese.

hma. These differences are not however surprising in view of the fact that the realized/unrealized distinction was almost certainly arrived at via separate paths of development in the two languages.[14]

5. Summary and Conclusion

In this paper, I have presented evidence relating subordinating *strategies* in three Tibeto-Burman languages. Burmese has a variety of subordinators, including three pairs which specify the aspectual distinction realized/unrealized. Angami Naga, in contrast, possesses only a general subordinating prefix, whose range of functions is very broad. Lotha Naga, the focus of the present investigation, was found to have two subordinators, one of which is also the marker of unrealized/future tense in independent clauses. This fact, along with contrasting sentence-pairs similar to those contrasted in Burmese by hta/hma and loú/hpoú, has led me to hypothesize a realized/unrealized distinction in Lotha sentential embedding strategies as well.

Unlike the Burmese situation, however, where the contrast extends systematically from simplex to embedded sentences, I suggest that Lotha has acquired the realized/unrealized distinction against the background of a single-nominalizer system like that of Angami. As the old general nominalizer ē- weakened, its functions were divided between -ò and -ỵ, which were developing distinctive subordinating functions based on the grammatical meanings of their respective source elements. While this could easily have led to a straightforward split between relativization (-ò) and nominalization (-ỵ), the language opted rather to utilize the new formal distinction to indicate aspect, at least in one area of embedding.

We see, therefore, how a comparison of Lotha with Burmese and Angami illuminates the internal grammar of Lotha itself. The comparative analysis undertaken here enables us to envision not only where Lotha has been, but where it might be headed. Viewed from this longer perspective, one of the more complex and hitherto puzzling aspects of Lotha grammar — the functional interplay between the suffixes -ò and -ỵ — is brought into sharper focus.

[14] The geographical and political features of the Burma-northeast India border region make extensive contact between speakers of Lotha and Burmese unlikely.

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