On the Differentiation of Subject and Object in Relativization: Evidence from Lushai
Author(s): Edward Hillard

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On the differentiation of subject and object in relativization: Evidence from Lushai

Edward Hillard
U.C. Berkeley

1.0. INTRODUCTION.
In this paper I will attempt to establish two related points about relativization in Lushai, a Tibeto-Burman language spoken by some 300,000 people in Southern Assam, India. The first point is certainly not to be considered surprising in light of recent work in relational grammar and of such hypotheses as the Accessibility Hierarchy. To wit, relativization, being a reference oriented strategy, is influenced by referential (or textual) considerations such as the syntactic status of an NP, Subject, Object, etc., rather than by semantic notions such as Actor, Patient, etc. In Lushai subjects relativize differently than objects and oblique noun phrases relativize differently than both of these.

The second point involves how to characterize the constructions that result from relativizing these various types of noun phrases, more specifically, how to characterize the constructions differentiating subject relativizations from object relativizations. I will show that subjects relativize obligatorily with participles and objects relativize (most commonly) with more sentential constructions, i.e., relative clauses. These two types of constructions, participles and relative clauses, are examples of two different strengths of syntactic bonding. Lushai has the word order, SOV. I will show that this fact entails important cognitive constraints which serve to explain the syntactic ranking of relativizations on subjects versus objects.

1.1. Remarks on Lushai grammar.
It is important for the interpretation of the data included in this paper that I introduce some basic aspects of the grammar of Lushai. As I have said, Lushai is SOV in basic word order. It is also postpositional and places attributive constructions after their heads. There are four tones in the language, High Level [V'], High Falling [V'], Low Rising [V'], and Low Level/ Dropping [V]. These tones do not function exclusively in the lexicon, having morphological uses as well. It is an ergative language at least at a morphological level as can be seen in the following contrast:

\[
\begin{align*}
\text{ka_ far'-nuu_ a_ hriaa'} & \quad \text{He knows my sister.} \quad (1) \\
\text{1S sister 3S know}_{I} \\
\text{ka_ far'-nuu_in_ a_ hriaa'} & \quad \text{My sister knows.} \quad (2) \\
\text{1S sister Erg 3S know}_{I}
\end{align*}
\]
For the most part all main verbs in the language are prefixed to agree in person and number with their subjects. An exception to this statement involves special clitic marking to agree with 1st and 2nd objects, preclitic min' and postclitic ce', respectively.

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ka-</td>
<td>kan-</td>
</tr>
<tr>
<td>2. i-</td>
<td>in-</td>
</tr>
<tr>
<td>3. a-</td>
<td>an-</td>
</tr>
</tbody>
</table>

**TABLE A. Subject pronominal prefixes.**

The simplest sentence may be merely a prefixed verb:

\[
\text{ka kal}^\prime \\
\text{I go/went}
\]

(3)

but, if a verb is not pronominally prefixed or otherwise cliticized, it cannot function as the predicate of an independent clause.

Lushai verbs occur in two forms designated Stem 1 (S1) and Stem 2 (S2). The functional difference between these stems is one of mood, with S1 being used for Indicative mood and S2 used for Subjunctive and the effect created is of a realis/irrealis dimension in the language. These stems are no doubt to be related underlyingly but the patterns in which this relation might be expressed are very diverse and native speakers appear to learn both stems of a verb lexically. The grammatical function of this stem alternation can be illustrated as follows:

\[
\text{ui' ka hriaa'} \\
\text{dog 1S know}_1 \\
\text{I know the dog}
\]

(4)

\[
\text{ui' ka hriat'} \\
\text{dog 1S know}_2 \\
\text{"if"}
\]

(5)

I have employed double quotation marks around "if" to indicate that the exact morphological status of this word is not exactly expressed by the gloss. A sample of verb stem alternations which occur in this paper is depicted in Table B.

<table>
<thead>
<tr>
<th>Stem 1</th>
<th>Stem 2</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>pee_</td>
<td>peek'</td>
<td>give</td>
</tr>
<tr>
<td>lei'</td>
<td>lei_</td>
<td>buy</td>
</tr>
<tr>
<td>vuaa_</td>
<td>vuak'</td>
<td>beat</td>
</tr>
<tr>
<td>hmuu_</td>
<td>hmu?'</td>
<td>see</td>
</tr>
<tr>
<td>se?_</td>
<td>se?'_</td>
<td>bite</td>
</tr>
<tr>
<td>hral?'_</td>
<td>hral?'_</td>
<td>sell</td>
</tr>
<tr>
<td>hriaa'</td>
<td>hriat'</td>
<td>know</td>
</tr>
</tbody>
</table>

**TABLE B. Verb stem alternation pairs.**
Adverbial notions such as purpose, instrument, locative, etc., are explicitly verbal in Lushai. This status can be inferred from the occurrence of morphological words consisting of one of the Demonstratives plus the Instrumental morpheme, -in:

\[
\text{khaa}^- \quad \text{in}^- \quad \rightarrow \quad \text{khaan}^-
\]

that(D) Instr 'by that'.

It is clear that these forms perform a grammatical function that is much broader than that conveyed by the designation "D + Instr", as they are glossed interlinearly in this paper. More precisely, the so-called Instrumental morpheme involved in the above contraction (compare the ergative morphological words khaan̄ and cuaan̄ formed by contraction with the Ergative morpheme -in̄) may be regarded as a subordinator for verbal material in an independent clause. If we recall that these types of grammatical phenomena are traditionally regarded as 'tertiary' (Jesperson) or 'external' (Halliday) to the nuclear clausal material, it is not surprising that some sort of subordinating mechanism should be necessary to incorporate the information they express into the larger unit. Lushai in this way happens to make explicit a phenomenon predicted by Lakoff (1970; Appendices) on the basis of English adverbials.

Lushai words ending in open (or vowel-final) syllables can be usually represented as having long vowels in final position. However, as in the case of nu_laa in numerous examples below, this vowel length can be reduced with resulting changes in the syntactic status of the noun (or verb; compare the participial forms of S1 in the data for relativization of subjects).

Thus,

\[
\text{nu}_laa^- \quad \rightarrow \quad \text{nu}_la^- \\
\text{girl} \quad \text{girl's} \\
\text{[Genit]}.
\]

This particular change is important to keep in mind for the criterial distinction drawn between participles and relative clauses in this paper.

1.11. Some Lushai sentence types.

Sentences 6-12 below contain more or less the simple sentence equivalents of the relativized sentences in 13-28 and exemplify aspects of Lushai grammar discussed above.

Subject intransitive.

\[
\text{hmei_chiaa}^- \quad \text{a_thii}^- \\
\text{woman} \quad \text{3S_die_I}
\]

The woman died.  

(6)
Subject transitive.

hmei_chiaa'in ui a-vuaa
woman Erg dog 3S beat I
The woman beat the dog.

Object.

nu_laa'in ui a_lei'
girl Erg dog 3S buy I
The girl bought the dog.

Benefactive.

nu_laa' puaan' i'lei_ sak_
girl blanket 2S buy I [Benef
You bought the blanket for the girl.

Indirect object.

an'hneen'a? sum'doong_tuu'in 1e? kha_buu' a_hral?
3P to merchant Erg book 3S sold I
The merchant sold the book to them.

Instrumental.

tuk_ver' cuu' ni'hliap' cuaan' ka_vo_ke?
window Top umbrella D-Instr 1S break I
I broke the window with the umbrella.

Locative.

dam_doy_in'a? cuaan' nu_laa_ a om_
hospital Loc D-Instr girl 3S be at I
The girl is at the hospital.

1.2. Topicalization.

It is apparent from, e.g., sentences (11 and 22) that something resembling Topicalization occurs in Lushai by means of the Determiners cuu' and hii' and fronting. While it is clearly beyond the scope of this paper to discuss this problem in detail, a few tentative remarks may be appropriate.

Topicalization is clearly oriented to a larger discourse unit than the clause. This paper assumes a theory in which different types of grammatical analysis may apply to clauses than to sentences. At the level of the clause two components are operative, a semantic component which arranges (cognitively) participants according to role notions more or less approximating Fillmore's (1968) deep cases, and a referential component which packages this semantic material according to relevant linguistic and extra-linguistic considerations. The output of this latter component (to use this
mechanistic analogy loosely) can be regarded as NPs which function as referential peaks in the information of the clause or, more traditionally, as the textual notions subject, object, indirect object, and so forth. Topicalization therefore appears to serve to highlight NPs which are not necessarily either subjects or objects, the two most pragmatically salient NPs in a Lushai transitive sentence, but which are of an equal salience with subjects or objects in a (perhaps non-syntactic) referential frame larger than the clause.

2.0. RELATIVIZATION PROCESSES.

Most relativized constructions in this paper are based on definite NPs and thus are framed by various Demonstrative morphemes, khaa-, cuu-, soo-, etc., or by morphological words involving contractions of these morphemes with either the Ergative or the Instrumental morphemes (see 1.1 for details of these contractions). Therefore, if the head noun of the relative construction is an Agent (Ergative case) of a transitive verb, the surface shape of these contractions will involve a falling tone (Examples 14, 15, 16, 20); if the head noun is an Instrumental, the surface shape of these contractions will involve a high level tone (Example 22).

What I am putatively labelling as relativization are several distinct constructions which result in Lushai when one attempts to modify a noun with a sentential component in which, at least underlyingly, is contained a noun coreferent with the head noun. In the Lushai data depicted below the results of this attempt vary widely, albeit in three general categories, according to the grammatical status of the head noun. One type of construction, a participial or partial relativization, is the obligatory result of relativization for subject head nouns and optionally for direct object heads. A second type, full relativization, occurs for the most part with direct objects and benefactives; while, the third result of relativization, that on indirect objects and oblique noun phrases, might best be characterized as an independent sentence nominalized by na-, the Space/Time nominalizing morpheme in Lushai. This construction might be said to be in apposition to the head noun.

More specifically, participles involve the coreferent noun, followed by a participial form of the verb that is either homophonous with or a phonologically reduced form of a Stem 1 verb. This structure is framed by an optional wh- element, a-, followed by the Demonstrative (for definite NPs). If the verb in this construction is transitive, the coreferent noun will be followed by the direct object and the verb will be suffixed by the morpheme tuu-, equivalent to the "-er" of English agentive noun derivatives, "ticket seller," etc. It is important to note that subjects of transitive verbs are not ergatively marked in these constructions but receive either no case marking or a genitive case marking (by the method described in 1.1, above; see sentences 13-14).

The full relativizations which occur with direct object and benefactive noun heads have the same internal order with the following exceptions. The coreferent noun will receive ergative
case marking, the verb will be a Stem 2 form and will be prefixed to agree with its subject. Finally, there appears to be a greater likelihood that the head noun will be retained with direct object relativization than with subject relativization. The important characteristics of these two types of relativization then are: (i) case marking on subjects of transitives, (ii) choice of verb stem, and (iii) presence of pronominal prefixing on the verb of the relative construction. These characteristics are summarized in Table C. Sentences 15-18 and 26-27 exemplify this description. At this point we will pass to the data on Lushai sentences containing relativizations, reserving further comments on the structure of relativized constructions for Section 3.0.

2.1. Relativization data.

2.12. Subject of intransitive relativized with a participle.

\[ S[hmei\_chiaa\_thii\_]\_S\_a\_cuaan\_ka\_far\_nuu\_a\_hriaa\_ nii\_ \]  
woman die\_ wh- D 1S sister 3S know\_  
The woman who died knows my sister.

2.13. Subject of transitive, participle.

\[ S[hmei\_chiaa\_ui\_vo\_tuu\_]\_S\_a\_cuaan\_ka\_far\_nuu\_a\_hriaa\_ 
woman dog beat\_er wh- D-Erg 1S sister 3S know\_  
The woman who died knows my sister.


\[ S[nu\_la\_ui\_lei\_khaan\_min\_se\_]  
girl- dog buy\_II D-Erg 10bj bite\_  
The dog the girl bought (girl's-boughten-dog) bit me.

2.15. Object, relative clause.

\[ S[ui\_hmei\_chiaa\_in\_a\_vuak\_]\_S\_cuaan\_ka\_far\_nuu\_a\_hriaa\_ 
dog woman Erg 3S beat\_II wh- D-Erg 1S sister 3S know\_  
The dog whom the woman beat knows my sister.

2.16. Benefactive, participle.

\[ S[nu\_la\_i\_puaan\_lei\_sak\_]\_S\_a\_khaa\_ka\_hriaa\_  
girl- 2S blanket buy\_II Benef wh- D 1S know\_  
I know the girl you bought the blanket for (the your-boughten-blanket-girl).

2.17. Benefactive, relative clause.

\[ S[nu\_laa\_puaan\_i\_lei\_]S\_a\_khaa\_ka\_thiaan\_a\_nii\_ 
girl blanket 2S buy\_II wh- D 1S friend 3S know\_  
The girl you bought a/someone's (else's) blanket for is my friend.
2.18. Indirect object, relative clause.

\[ \text{slave-pl money give II wh-pl D 1S see} \]

I saw the slaves to whom you gave the money.

\[ \text{girl dog give II wh-D-Erg Obj to love I} \]

The girl I gave a dog to loves me.

2.19. Indirect object, nominalization.

\[ \text{teacher (pl) merchant Erg 3P to sell II Noml (pl) D 1S see I} \]

I saw the teacher(s) to whom the merchant sold the book.

((Note: I cannot explain the presence of the "stranded" '3P-to' element in the subordinated sentence.))

2.20. Instrumental, relative clause.

\[ \text{window Topic umbrella woman hold II wh-D-Instr} \]

I broke the window with the umbrella the woman was holding.

2.21. Instrumental, nominalization.

\[ \text{stick Erg dog beat II Noml D 3S I break I} \]

The stick the woman beat the dog with broke.

2.22. Locative, nominalization.

\[ \text{teacher Erg book buy II Noml village D} \]

I know (of) the village in which the teacher bought the book.

\[ \text{hospital girl check be at Noml D 3S big I} \]

The hospital in which the girl I gave my check to stayed is large.
3.0 THE STRUCTURE OF RELATIVIZATION.

It is not my purpose here to draw firm conclusions about the underlying structure of Lushai relative clauses. However, as I have indicated in Figure 1, I am inclined to view Lushai as a language which deletes head nouns from a position to the right of the modifying structure. The coreferent NP in a relative clause is a highly topicalized notion in that it repeats as well as augments the information represented by the head noun. I have noted that Lushai has a mechanism for topicalizing information by means of fronting (left-preposing) and morphemic marking (by cuu- or hii-). It may be that the extremely fronted position of the coreferent NP in a relativized sentence pragmatically precludes the repetition of this NP after the clause. Support for this analysis of RRC-Head Noun order can be derived from sentences 24, 26 and 27.

In all of the relativizations except those on indirect objects, the presence of a wh- element agreeing with the head noun is optional. I would therefore infer that this morpheme need not occur unless its absence would result in ambiguity regarding the head noun of the relativization. Of course, this circumstance would only arise in the situation where a third participant, designated indirect object, exists within the clausal frame. Note however that in indefinite relativizations, such as (28), the presence of the wh- element appears to be obligatory. Finally, at least as I have here treated RRC-Head order, the wh- element in a definite relativization occurs in the matrix clause rather than the subordinated clause.

It should be clear throughout the sentences that the basic categorical distinction of Participle versus Relative Clause consistently delineates relativizations of subject from those of objects. Since Lushai is an ergative language, it is important to stress the thoroughgoing nature of this formal distinction between the textual notions of subject and object. Above all it should be clear that this distinction pays no heed whatsoever to semantic notions underlying a clause frame, be they expressed as Actor - Patient/Goal (Fillmore, 1968) or 'causer' - 'affected' (Halliday, 1970).

In Table C, I have attempted to make explicit the criteria on which I have relied to distinguish among the types of relativized constructions in this paper. Table D then presents these constructions summarized along a continuum (or squish) according to these criteria.

![Figure 1. Underlying Structure of Lushai relative clauses.](image-url)
The following sentences illustrate Figure 1 and the discussion in 3.0.

(26)

\[ S[\text{thii}^- \text{ nii om aa}^- \text{ i}^- \text{ hriat}^-] S \text{ tlang vaal}^- \text{ khaa}^- \text{ ni}^- \text{ zaan a}^-? \]
\[ 3S_i \text{ die}_I \text{ probably} 2S \text{ know}_II \text{ youth}_i \text{ D last night} \]
\[ a^- \text{ low}^- \text{ leeng}^- \]
\[ 3S_i \text{ visit}_I \]

The youth whom you know to have probably died visited (me) last night.

Compare (26) with Head retained to the following (27) with Head deleted:

(27)

\[ S[\text{thii}^- \text{ aa}^- \text{ i}^- \text{ hriat}^-] S \text{ a}^- \text{ khaa}^- \text{ a}^- \text{ thii}^- \text{ lou}_- \text{ dead-as} 2S \text{ know}_II \text{ wh-} \text{ D 3S dead}_I \text{ Neg}_I \]

The one whom you know as dead is not dead.

While (27) represents an object relativization, the same structure varied for a subject relativization reflects how minimal the modifying construction can be, as in (28):

(28)

\[ S[\text{thii}^-] S \text{ a}^- \text{ i}^- \text{ hriaa}^- \text{ em}^- \]
\[ \text{ die}_I \text{ wh-} 2S \text{ know}_Q \]
Did you know the one who died?

***************

Table C.

Criteria for Distinguishing Constructions Used in Relativization.

<table>
<thead>
<tr>
<th>Participle</th>
<th>Relative Clause</th>
<th>Nominalized Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Subjects of ( V_{tr} ) unmarked for Erg; subject in oblique case, i.e., Genit.</td>
<td>1. Erg case marking on subjects of ( V_{tr} )</td>
<td>1. Erg case marking on subjects of ( V_{tr} )</td>
</tr>
<tr>
<td>2. Lack of ppf on V.</td>
<td>2. ppf on V.</td>
<td>2. ppf on V.</td>
</tr>
<tr>
<td>3. Reduction in syntactic status of V (S1), evident in, e.g., (a) incorporation of V into agent nominalization by -tuu' for ( V_{tr} ) and (b) potential for phonological reduction where permitted by syllable structure.</td>
<td>3. Use of V (S2)</td>
<td>3. Use of V (S2).</td>
</tr>
<tr>
<td>Note: Syllable structure of all S2 precludes phonological reduction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Noml na' present immediately to right of V (perhaps in lieu of wh- element?).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table D.
The Relativization Squish.

<table>
<thead>
<tr>
<th>Textual function of Head Noun</th>
<th>Status of Construction</th>
<th>Construction type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject, V-tr</td>
<td>Obligatory</td>
<td>Participle</td>
</tr>
<tr>
<td>Subject, V-intr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Object, Benefactive</td>
<td>Optional</td>
<td>Part./RC</td>
</tr>
<tr>
<td>Indirect Object Instrumental</td>
<td>Optional</td>
<td>RC/Nominalization</td>
</tr>
<tr>
<td>Time/Space Locative</td>
<td>Obligatory</td>
<td>Nominalization</td>
</tr>
</tbody>
</table>

4.0. SYNTACTIC BONDEDNESS AND THE BONDEDNESS HIERARCHY.

According to Foley (1976), NP level grammar can be analyzed into two basic types of relations: Noun plus Noun and Noun plus Adjunct. Noun plus Adjunct can be further analyzed as including the following seven types of relations (or categories in Foley's usage):

- Noun plus Article
- Noun " Deictic
- Noun " Quantifier
- Noun " Interrogative
- Noun " Adjective
- Noun " Participle
- Noun " Relative Clause

The claim is that this list represents a hierarchy of syntactic bondedness such that categories at the top of the list are bound more strongly to their heads than categories at the bottom of the list. The greater the syntactic bond the less apt a Noun plus Adjunct construction is to allow intervening adjuncts. Foley provides conclusive proof for the existence of such a hierarchy on the basis of an extensive treatment of Austronesian language data. It is to be noted that Particiles are higher on the hierarchy than Relative Clauses and thus more strongly bound to their heads.

Now in SOV and VSO languages, where participles tend to be used to relativize subjects (compare Turkish) the considerable discrepancy between the types of constructions used to relativize subjects versus those used to relativize objects has important cognitive implications. That is, it becomes essential in such a language to know which of the two juxtaposed NPs is being modified by a particular relativized construction, realizing that clause like structures such as participles and relative clauses...
stand nearly as independent clauses in a language where the structural requirement for full sentence-hood is so minimal. The relativized constructions applicable to these two NPs thus vary widely in their structures and in the grammatical impression conveyed by the way they package their clausal information.

5.0. CONCLUSION.

I wish to comment on the inclusion of nominalizations in a discussion of relativization. Considering these as Noun plus Noun relations and thus locating them within Foley's NP level grammatical analysis will, I hope, provide a means of justifying this inclusiveness. If one were to apply a universal template such as the Accessibility Hierarchy, then probably what I have here included as relativizations (21, 23, 24, 25) of obliques involving nominalized sentences would not pass through the filter. In this case my intentions have varied from those who might solely be concerned with the fit of such a template. Rather, I have tried to stick to a process of letting the data develop as it would and to then explain the whole as much as possible in unified terms. I think that Foley's view of NP level grammar contributes to this structural unification. It can be expressed as follows: As one relativizes NPs of less and less pragmatic salience to the clause frame, the types of construction that result range from closely bound participles to more loosely bound relative clauses, finally becoming fully sentential albeit nominalized sentences which stand in appositive relation to a head noun. Thus, Foley's two major NP level relations can be seen as merging (the process being roughly schematized in Table D) through the reference oriented process of relativization.

FOOTNOTES.

1. To Jim Matisoff for his generosity and patience, to Kris Lehman for his constant attention to my work on this language, and to A. Siamkima Khawlihring and Lalliana Mualchin, teachers and friends.  

2. The following abbreviations are used in this paper: 1, 2, 3 = First, second, third person, respectively; S=Singular, P(1)=Plural; ppr=pronominal prefix; D=Demonstrative; Erg=Ergative, Instr=Instrumental, Benef=Benefactive; I=Stem 1, II=Stem 2; i=(index); Noml=Nominalization/Nominalizer; Q=Question morpheme; V=Verb, tr=Transitive, intr=Intransitive; Genit=Genitive; Part=Participle, (R)RC=(Restrictive) Relative Clause; prt=Particle.


4. This analysis of clause level grammar roughly paraphrases Foley (1976 and personal communication).

5. Although, for the sake of convenience in this type of systematic presentation, I have not culled texts in an effort to get supporting examples for the claims of this paper, I have always taken care to provide situational contexts for each example I wished to elicit and tried to provoke voluntary utterances rather than mere translation responses. I am reasonably certain that these sentences are all natural and appropriate Lushai utterances.
Donaldson, Susan Kay. 1976. Some observations on reference and relative clauses in a few (largely randomly chosen) Indian languages. mimeo.
Lehman, F.K. 1976. [Handout from a talk on the stem alternation in Lushai given at a University of Illinois, Urbana-Champaign, seminar].