

## Relativization versus Nominalization Strategies in Chimariko

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### 1. Introduction

Are relative clauses formally indistinct from clausal nominalization in certain languages? This has been argued for a number of languages, such as Mojave, Diegueño, Luiseño, Wappo, and Quechua (Comrie and Thompsen 1985). This paper examines relative clauses in Chimariko, an extinct language of Northern California, and demonstrates that Chimariko shows no formal distinction between relative clauses and clausal nominalizations, the same as Mojave, Diegueño, Luiseño, Wappo, and Quechua.

Nominalization refers to 'turning something into a noun' (Comrie & Thompson 1995). It is a derivational process that creates nouns from lexical verbs and adjectives. The resulting nouns become the head nouns in a noun phrase. Clausal nominalization is a process 'by which a prototypical verbal clause [...] is converted into a noun phrase' (Givón 1990:498). According to Givón (1990:498) 'a verbal clause is nominalized most commonly when it occupies a prototypical nominal position (or 'function') [...] within another clause'. Generally, this process is accompanied by structural adjustments, such as the absence of tense, aspect, and modal markers and modifications in the case-marking, among others. This work compares relativization strategies to clausal nominalizations. Clausal nominalizations are not prototypical nominalizations in that they do not involve the derivation of a noun from a verb given that the nominalized constituent represents an entire clause. Furthermore, the verb in the nominalized clause often maintains some of its verbal properties. For example, arguments and adjuncts have the same properties as in a non-nominalized clause.

In contrast to clausal nominalization, relative clauses are clauses which restrict the meaning of a noun. They are subordinate clauses embedded inside noun phrases functioning as noun modifiers (Givón 1990:645). Keenan (1985) identifies four characteristics included in relative clause constructions: (1) they are sentence-like, (2) they consist of a head noun which is present or which can be inferred and a relative clause, (3) they have a total of two predicates, and (4) they describe or delimit an argument. Relative clauses in Chimariko include these four characteristics (see section 3). However, the verb in these constructions occurs with a special suffix *-rop/-rot/-lop/-lot* marking dependency. This suffix could also be interpreted as a clausal nominalizer (see section 4).

Relative clauses can be grouped together following three typological parameters: (1) the position of the relative clause with respect to the head noun, (2) the mode of expression of the relativized noun phrase, and (3) which grammatical element can be relativized (Payne 1997). With regard to (1), i.e. the position of the relative clause with respect to the head noun, four possibilities have been identified: relative clauses are either pronominal (the relative clause occurs before the head), postnominal (the relative clause occurs after head), internally headed (the head occurs within the

relative clause, or headless (the head is inferred). Only the latter two possibilities occur in Chimariko (see section 4). The second typological parameter refers to identifying the role of the referent of the head noun within the relative clause. It has also been called the ‘case recoverability strategy’ (Payne 1997). The third typological parameter refers to the relativization hierarchy: subject > direct object > indirect object > oblique (Keenan and Comrie 1977). If a position on the hierarchy can be relativized, then all positions to the left can also be relativized. Given the particular case of Chimariko argument structure which is based on agents and patients and on a person hierarchy, the latter two typological parameters (2) and (3) are not examined here. Neither the agent-patient distinction nor the person hierarchy is reflected in third persons in Chimariko. There is only one marker for third persons, a prefixed or suffixed *h* (see section 3).

Section 2 provides general information about Chimariko and explains the nature of the data. Section 3 treats relativization strategies in Chimariko, while section 4 summarizes nominalization in Chimariko. Section 5 examines relativization in Diegueño, Quechua, and Wappo comparing it to Chimariko.

## 2. The Language and Data

Chimariko is a now extinct Northern California language. It was once spoken in a few small villages along the Trinity River and parts of the New River and South Fork River. The last speaker probably died in the 1940s.

Published and unpublished materials on the Chimariko language and culture are limited to a brief grammatical sketch (Dixon 1910), a few articles, and handwritten notes from data collection sessions by Stephen Powers (1875), Edward Sapir (1927), C. Hart Merriam (1920-1921) and John Peabody Harrington (1921, 1927, 1928), among others. The main source of data for this work comes from 3500 pages of handwritten field notes collected by John Peabody Harrington in the 1920s and the notes of George Grekoff. Harrington collected elicited sentences, vocabulary, and oral narratives from several consultants. A sample page is included in the appendix. Grekoff examined Harrington’s extensive corpus leaving numerous notes and some analyses which have proven useful.

Typologically, Chimariko is a head-marking language. Core arguments are obligatorily marked on the verb and possession is marked on the possessed. Case-marking occurs only with instruments and companions while other nominal syntactic relations are unmarked. Argument structure is based on agents and patients and on a person hierarchy whereby only one argument or overtly expressed on the predicate. Chimariko is a synthetic to polysynthetic language with mainly suffixes. However, personal pronouns and possessors are either prefixed or suffixed. With regard to word order, Chimariko seems to be verb final, though the limited amount and kind of data does not yield a clear picture. No apparent preference or restrictions have been identified for the order of nominal elements within a noun phrase.

## 3. Relativization Strategies in Chimariko

There are two relativization strategies in Chimariko: (1) internally headed relative clauses and (2) headless relative clauses. There are no relativizers or subordinating conjunctions linking a relative clause to its head. Heads occur all within the relative clause as in examples 1-5, and the predicate within the relative clause occurs with a special suffix *-rop* /*-rot* /*-lop* /*-lot* marking dependency. In the examples below, relative clauses are enclosed in brackets, heads are boldfaced, and the special verb form *-rop* /*-rot* /*-lop* /*-lot* is underlined.

1. 'Hopping Game' (Grekoﬀ 004.008)  
*himantamorop map'un, hi'amta*  
 [h-iman-tamo-rop **map'un**] h-i'am-ta  
 3-fall-DIR-DEP that.one 3-beat-DER  
 'Those fellows that went down got beaten.'
  
2. Harrington 20-1097  
*map'un hokote'rot yeči' ?imi'nan*  
 [map'un h-oko-te'-rot] y-eči' ?i-mi'n-an  
 that.one 3-tattoo-DER-DEP 1SG.A-buy 1SG-want-ASP  
 'I want to buy that engraved one.'
  
3. Harrington 20-1103  
*mo'a p<sup>h</sup>uncar huwatkurop p<sup>h</sup>a'yinip*  
 [mo'a p<sup>h</sup>uncar h-uwa-tku-rop] p<sup>h</sup>a'yi-nip  
 yesterday woman 3-go-DIR-DEP thus.say-PST  
 'That woman who came yesterday told me.'
  
4. Grekoﬀ 020-009  
*nač<sup>h</sup>ot yak'orop p<sup>h</sup>a'asu, hik'ot*  
 [nač<sup>h</sup>ot ya-k'o-rop p<sup>h</sup>a'asu] h-ik'o-t  
 1PL 1PL-talk-DEP that.kind 3-talk-ASP  
 'What we talk, she talked.'
  
5. Grekoﬀ 012.014  
*č<sup>h</sup>e'new yewurop hačmukč<sup>h</sup>a č<sup>h</sup>awun*  
 [č<sup>h</sup>e'new y-ewu-rop] hačmukč<sup>h</sup>a č<sup>h</sup>-awu-n  
 bread 1SG.A-give-DEP axe 1SG.P-give-ASP  
 'For the bread I gave him, he gave me an axe.'

As can be seen in 1-5, there are no relativizers and all heads are within the relative clause, either as a head noun as in 3 and 5, or as a relative pronoun *map'un* 'that one' or *p<sup>h</sup>a'asu* 'that kind' as in 1, 2, and 4. In example 1, *map'un* 'that one' is considered to be part of the relative clause rather than the main clause as it occurs within the same

intonation unit. Intonation units are signalled in the data by commas. In 1-5, the relative clauses always precede the main clause. This is not surprising as Chimariko has predominantly verb-final word order. With regard to the order within the relative clause, the heads either precede the dependent predicate, as in 2, 3, and 5, or they follow it, as in 1 and 4. In addition to the special suffix marking dependency, the dependent predicate occurs with pronominal affixes, but it lack tense, aspect, or modal suffixes which are obligatory in independent clauses. Potential restrictions on what can be relativized in Chimariko is unclear. In the available data there are examples of relativized arguments that serve as actors or undergoers in the relative clause.

In general, only one argument is marked on the predicate following a hierarchy whereby speech act participants are favored over third persons. In addition, first persons show a distinction for agents and patients and first and second persons distinguish number. Third person markers are always *h*, regardless of number or semantic role.

The second relativization strategy used in Chimariko are headless relative clauses. As with internally headed relative clauses, the verb form in the headless relative clause occurs with a suffix *-rop* /*-rot* /*-lop* /*-lot* marking dependency. This is illustrated in examples 6-8.

6. Grekoff 012.014  
*yewuxan* *ʔahatew hexačilop šičelaʔi*  
*y-ewu-xan* *ʔahatew [h-exači-lop šičela-ʔi]*  
 1SG.A-give-FUT money 3-steal-DEP dog-POSS  
 'I'll give you money for the stealing by my dog.'  
 (Literally: 'I give you money for what my dog stole')
7. Grekoff 020.009  
*hik'omutarop hitxahta*  
*[h-ik'o-muta-rop] h-itxah-ta*  
 3-talk-?-DEP 3-stop-ASP  
 'He stopped talking' (Literally: 'What he was uttering, he stopped it')
8. Grekoff 020.009  
*šitoita hik'orop hek'oʔnačaxat*  
*[šito-ita h-ik'o-rop] h-ek'o-ʔna-čaxa-t*  
 mother-POSS 3-tell-DEP 3-say-APPL-COMP-ASP  
 'She told her mother everything' ('What she told her mother, she told her all')

In examples 6-8, there are no relativizers and there are no heads. The heads are inferred. In examples 7 and 8, the relative clauses precede the main clause. The only example where a relative clause follows a main clause is 6. As with internally headed clauses, the dependent predicate occurs with pronominal affixes, but it lack tense, aspect, and modal suffixes.

Overall, internally headed and headless relative clauses show the same structure with the only distinction of having an explicit head or not. Could these constructions be interpreted as clausal nominalizations? The next section examines this question.

#### 4. Relativization versus Nominalization in Chimariko

The predicates in Chimariko relative clauses show properties of both, nouns and verbs. They are noun-like in that (a) they lack any tense, aspect, or modal affixes and (b) they cannot form clauses by themselves. In Chimariko verbs can form clauses by themselves. They are verb-like in that (a) they occur with pronominal marking and (b) they can take arguments. In clausal nominalization the verb retains some of its verbal properties. The Chimariko verb retains some of its verbal properties in relative clauses, such as pronominal marking and the possibility of taking arguments. Furthermore, in clausal nominalization there are structural adjustments in the process. The lack of tense, aspect, and modal suffixes is often such a structural adjustment. Tense, aspect, and modal suffixes are absent in Chimariko relative clauses. Another piece of evidence for clausal nominalization is the position of the nominalized clause. A nominalized clause occupies a prototypical nominal position or function within another clause. Chimariko is predominantly verb-final and the relative or nominalized clauses occur before the main predicate with the exception of example 6, i.e. in the prototypical nominal position. What about nominal function? In clausal nominalization a verb phrase is turned into a noun phrase: VP → NP. There are no nouns or independent pronouns in some of the constructions found in Chimariko, as in example 7, and the dependent predicate shows properties of both nouns and verbs making it difficult to determine whether they are nouns or verbs. A relative clause *Srel* restricts the meaning of a noun phrase. The construction can be summarized as follows: *[[Srel]NP] + VP*. In examples 1-7 the relative clauses restrict the meaning of a head, present or inferred. This is less clear in example 8. Overall, relative clauses in Chimariko could structurally be interpreted as clausal nominalizations paralleling constructions found in Diegueño and in other languages (see 5), but functionally they are best viewed as relative clauses given that they restrict the meaning of a head.

While there is no construction representing clausal nominalization in Chimariko, other than the relative clauses, lexical nominalizations are common and are formed with the nominalizer *-ew*, as in example 9.

9. Nominalizations with the nominalizer *-ew*
- |                       |    |  |                       |
|-----------------------|----|--|-----------------------|
| <i>ama</i> ‘to eat’   | => | <i>h-am-ew</i><br>POSS-eat-NOM<br>‘food’     | (‘Woman wanders’)     |
| <i>ik’o</i> ‘to talk’ | => | <i>h-ik’-ew</i><br>POSS-talk-NOM<br>‘talker’ | (Harrington 020-1133) |

The prefix *h-* in example 9 is a possessive prefix. Given that verbal pronominal affixes and nominal possessive affixes are almost identical in shape, the pronominal affixes in relative clauses could also be interpreted as possessive affixes. The only difference in shape occurs in the first person plural forms and in some third person forms. Example 10 shows that the affixes in relative clauses are in fact pronominal and not possessive affixes as in the nominalized verbs in 9.

- 10a. (same as 4) Grekoff 020-009  
 [nač<sup>h</sup>ot *ya-k'o-rop*    *p<sup>h</sup>a'asu*]    *h-ik'o-t*  
 1PL    1PL-talk-DEP    that.kind    3-talk-ASP  
 'What we talk, she talked.'
- 10b.                    *č<sup>h</sup>a-sot*                    *h-usot*  
 1PL.POSS-eye                    3.POSS-eye  
 'our eye'                    'his eye'

In example 10a, the pronominal prefix for the first person plural *ya-* is different from the first person plural possessive prefix *č<sup>h</sup>a-* in 10b.

While Chimariko verbs take pronominal, tense, aspect, modal, and derivational affixes, nominal stems can take possessive, privative, locative, definitive, and case affixes for instruments and companions. None of these nominal affixes are found on predicates in relative clause constructions. However, the verbal suffix marking dependency *-rop/ -rot /-lop /-lot* is similar in shape to the nominal suffix marking definiteness, shown in examples 11 and 12.

11.    Definite suffix *-ot* (Harrington 020-1093)  
*šičelot č<sup>h</sup>awin, č<sup>h</sup>utpai, č<sup>h</sup>awin*  
*šičel-ot*    *č<sup>h</sup>-awi-n*                    *č<sup>h</sup>-utpa-i*                    *č<sup>h</sup>-awi-n*  
 dog-DEF 1SG.P-afraid-ASP 1SG.P-bite-MOD 1SG.P-afraid-ASP  
 'I am afraid of **the dog**, he might bite, I am afraid'.
12.    Definite suffix *-op* ('Fugitives at Burnt Ranch')  
*hek'omatta, hak<sup>h</sup>ote' č'imarop, xawiyop hak<sup>h</sup>ote'n*  
*h-ek'o-ma-tta h-ak<sup>h</sup>o-te' č'imar-op*    *xawiy-op*    *h-ak<sup>h</sup>o-te'-n*  
 3-say-?-DER 3-kill-DER person-DEF Indian-DEF 3-kill-DER-ASP  
 'He (the boy) told (it), they killed the boy, **the people, the Indians** killed him'.

Is this similarity indicative of clausal nominalization rather than of a relative clause construction? Given that these two affixes differ in their functions and that they are only similar in shape, the answer is no. The suffix *-rop/ -rot /-lop /-lot* marking dependency in relative clauses does not mark definiteness.

The next section examines relativization and nominalization in three of the languages where the two constructions have been claimed to be the same and compares them to relative clause constructions in Chimariko.



15.   ʔah    [ʔi    k'ew-ø    nawta]-ø   hak'se'  
       I     me    man-ACC   saw   ACC   like  
       'I like the man I saw'

The relative clause in 15 occurs in the position in which a simple noun in that function would occur, here the O in SOV. Furthermore, the relative clause in 15 is marked with the appropriate case marker, here - ø for the accusative, and it is clearly subordinate since the subject ʔi 'I' occurs in the accusative. A nominalized clause would show the same structure. In contrast, in Chimariko there is no case marking on the predicates in relative clauses. Therefore, there is less evidence for a structural similarity between relative clauses and nominalizations in Chimariko.

### 5.3 Huallaga Quechua (Weber 1983)

Huallaga Quechua is spoken in Peru. It is an SOV language, but it does not have a rigid SOV word order (Weber 1983). As with Wappo, Huallaga Quechua has a rich case system. According to Weber (1983), there is insufficient evidence for distinguishing nouns and adjectives as distinct lexical categories in the language. Weber (1983) argues that relativizations are formally distinct from nominalizations only to the extent that nouns are distinguished from adjectives. As a result, there is also insufficient evidence that relativized clauses and nominalizations are distinct syntactic classes. Examples 16 and 17 show that internally headed relative clauses and nominalized clauses have the same structure in the language.

16.   [*marka-man*   *chaya-sha:-chaw*]   *hamashkaa*  
       town-GOAL   arrive-SUB.1-LOC   I.rested  
       'I rested in the town to which I arrived'
17.   *qonqashkaa*   *away-shaa-ta*  
       I.forgot       go-SUB.1-ACC  
       'I forgot that I had gone'

The predicate in the internally headed relative clause in 16 is marked with a locative suffix *-chaw*, i.e. a nominal suffix. Both the relative clause in 16 and nominalized clause in 17 are marked with the same substantivizing subordinator (glossed together with the pronominal affix). Hence, there is no structural difference between the two constructions other than the presence of the head noun in 16.

Chimariko is different from Huallaga Quechua in that there are no locative markers on predicates in relative clauses, and in that adjectives are morphosyntactically distinct from nouns.

## 6. Summary and Conclusions

As shown in section 5, in Diegueño, Wappo, and Huallaga Quechua relative clauses and nominalized clauses are structurally the same. There are no relativizers in these constructions. The predicates in both the relative clauses and the nominalized clauses occur with nominal markers, such as case or definiteness affixes, and the clauses occupy a prototypical nominal position in the main clause. The only difference between the two constructions is that relative clauses restrict an internal or inferred head.

Are relative clauses and clausal nominalizations structurally indistinct in Chimariko, the same as in these languages? Like in Diegueño, Wappo, and Huallaga Quechua, there are no relativizers in Chimariko relative clauses, and the relative clauses occupy prototypical nominal positions in the main clause. However, unlike in Diegueño, Wappo, and Huallaga Quechua there are no nominal markers on predicates in relative clauses. While Chimariko has no rich case system, other nominal markers, such as the definite *-op*, are common. The suffix marking dependency in relative clauses, *-rop /-ro t/-lop/-lot* is similar in shape to the nominal definite marker *-op*, but it is clearly different in its function. The suffix marking dependency could also be interpreted as a clausal nominalizer, similar to Huallaga Quechua, but semantically the constructions found in Chimariko represent relative clauses, because they are restrict a head, present or inferred.

To conclude, relative clauses and clausal nominalizations may be formally indistinct in Chimariko. Semantically, however, these constructions represent relative clauses. Given that they are restrictive, i.e. they identify the respective referents, rather than being nominalizations, they are better interpreted as relative clauses. Examples with relativized instruments or companions, i.e. arguments where case marking occurs, or negative relative clauses may offer an additional piece of evidence for the claim that relative clauses and clausal nominalizations are formally indistinct in Chimariko. However, given the nature of the data, no such examples have been identified.

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## LIST OF GLOSSES

A	Agent	P	Patient
ASP	Aspect	PTCP	Participle
DEP	Dependent	PST	Past tense
DER	Derivational	PL	Plural
DIR	Directional	POSS	Possessive
FUT	Future	PROG	Progressive
MOD	Modal	Q	Interrogative
NEG	Negative	SG	Singular
OP	Discourse-pragmatic marker	SUB	Substantivizing subordinator
		TERM	Terminative

## Appendix I: Sources for the Narratives Used in the Examples

<u>Narrative</u>	<u>Source</u>
Fugitives at Burnt Ranch	Harrington 021-0007 <sup>1</sup>
Dailey Chased by the Bull	Grekoff 004.008 <sup>2</sup>
Hopping Game	Grekoff 004.008
Crawfish	Grekoff 004.008

<sup>1</sup> These numbers refer to the microfilm reels with Harrington's data. The first three digits indicate the microfilm reel and the following number represents the frame number on the reel. The reels are numbered 020-024 of the Northern California collection. The number of frames on one reel varies.

<sup>2</sup> The Grekoff Collection is housed at the Survey of California and Other Indian Languages at the University of California at Berkeley. The numbers represent their cataloguing of the materials.

## Appendix II: Harrington Sample Page

Textlet on Fugitives at Aunt Ranch.  
 J'war g'tai hetraheskut  
 I three men came as fugitives  
 nwat put, hetraheskut of utamdaye  
 kimot 'u'ia asunda, of lak'o,  
 These are strangers.      of lak'o  
 hetraheskut a sunda,  
 They are running away.  
 H. Casak'ona, we of hup of Casak'ona  
 (said?) don't will them