

GENITIVE-RELATIVE CONSTRUCTIONS IN POLYNESIAN*

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1. Introduction

This paper presents an examination of an understudied construction termed the Genitive-Relative construction, which is found across Polynesian languages and which has not received attention in generative literature. Our goal is to outline the key properties of the construction, to present a structural analysis for it, and to discuss some of the challenges it presents for common assumptions, in particular with respect to relative clause structure and the theory of control.

The principal features of the Genitive-Relative construction are as follows:

- A transitive clause is placed as a relativising clause within a relative clause structure headed by a non-external argument.
- The external argument appears external to the relativizing clause, and is genitive-marked in the same way as a possessor.

In (1) and (2) we provide examples of the construction in a range of Polynesian languages. In at least some of these languages, the construction can be found in clefts and in questions as well as in relative clauses, but since these constructions arguably involve a relative clause structure, the term Relative Genitive need not be revised to accommodate these structures.¹

(1) Niuean (Cleft/Relative)

a. Ko e tama fifine fulufuluola [ne lagomatai e ia]
Ko child girl beautiful T/A help **ERG 3ps**
'It is the beautiful girl that he helped.'

(Field Notes:2001)

b. Ko e tama fifine fulufuluola **haana** [ne lagomatai]
Ko child girl beautiful **3ps.GEN** T/A help
'It is the beautiful girl that he helped.'

(Field Notes:2001)

In the Niuean example (1a), we can see a clefted NP, with the clefted NP

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¹ Abbreviations used in this paper are: Abs 'absolute', Acc 'accusative', Aux 'auxiliary', Deix 'deictic', Dir 'directional', Erg 'ergative', Fut 'future', Gen 'genitive', Pass 'passive', Pl 'plural', Resprn 'resumptive pronoun', Sbjv 'subjunctive', T/A 'Tense/Aspect'.

followed by a relativising clause.² An alternative form of such a sentence is (1b), where the external argument of the embedded verb *lagomatai* ‘help’ appears instead in genitive form, to the left of the complementizer or T/A of the relativising clause.

Although this construction has not been discussed in generative literature, it has been treated by linguists working on Polynesian languages, in a variety of frameworks. For example, Seiter (1980) discusses this construction in Niuean, Clark (1976) discusses the construction in Proto-Polynesian and modern Polynesian, Bauer (1997) discusses the construction in Māori, and Hawkins (2000) presents a detailed examination of the construction in Hawaiian. Examples of the construction in various languages appear in (2)-(5) below.

(2) Tongan (Relative)

...’enetohi ‘oku lau
his book T/A read
‘...the book he was reading’

(Clark 1976: 5.37)

(3) Māori (Cleft)

Ko ngā kupu ēnei a taua manu i karanga haere atu ai...
Ko the.PL word these GEN that bird T/A call move DIR RESPRN
‘These are the words the bird kept calling...’

(Orbell 1992:27)

(4) Hawaiian (Relative)

Kāna mea i makemake ai i ia wā...
3ps.GEN thing T/A want RESPRN at that time
‘The thing that he wanted at that time...’

(Hawkins 2000: 133)

(5) Niuean (Question)

ko hai haau ne lagomatai
Ko who 2psGEN T/A help
‘Who did you help?’

(Field Notes: 2001)

The Tongan example in (2) can be pre-theoretically schematised as in (6).

(6) his_i book_j [that read_i ; j]

There are complex relations expressed in this construction. First, there is a relation between the agent and non-agent of the relativizing clause (that is, between the genitive and the head of the relative clause), and potentially also a relation between the genitive and the entire relative clause (if these are indeed

² More properly, in clefts, the relative clause has an empty head, coindexed with the clefted element. This is supported by the inability of the genitive to appear to the left of the cleft DP as discussed in Seiter (1980), but we simplify here to make a general point about the construction.

different). In addition, the genitive is assigned an Agent thematic role via some form of relation between itself and the external theta role contained within the relativizing clause. We assume that the patient-theme role is assigned to a null Wh-element, which extracts to specifier of CP, as in standard analyses of relative clauses.

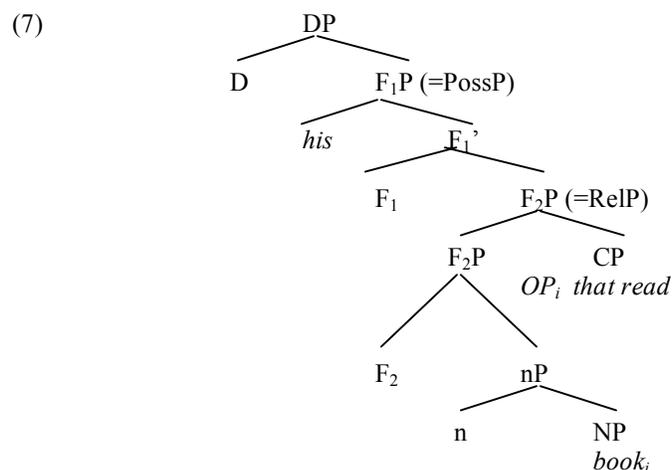
In this paper, we will demonstrate that the relation between the genitive and the external argument of the relativizing clause is best viewed as a control relation (rather than raising), but that it involves a non-standard type of control that differs from traditional control in that it is not related to particular control verbs and in that it does not target a PRO, or indeed, any particular structural position. We consider that the application of this type of control may inform a number of other similarly-understudied constructions such as the Māori Actor-emphatic (Clark, 1976; Chung, 1978), Tongan nominalizations (Tchekhoff, 1981, Dukes 1996), the Malagasy “bodyguard” (Keenan 1976, Paul, 2003), and English sentences such as *It's his game to lose*.

Given the comments above, we must develop a structure for this construction which captures these three relations: between the genitive and the head of the relative clause, between the genitive and the entire relative clause and between the genitive and the agent of the relativizing clause. In the following sections we will develop such an analysis.

2. Syntactic Structure of the Genitive-Relative Construction

In (7) we present a tentative structure for the Genitive Relative construction. Importantly, this structure allows for the genitive DP to c-command into the relativising clause, in order to account for the control relation between the two nominals.³

³ In this construction we allow for a right-branching relative clause, for ease of exposition, however it is possible to analyse the structure in the antisymmetric terms of Kayne (1994). To do so, the relativising clause would be on the left, and the head would move around it to the specifier of a higher functional projection.



In this structure for the Tongan example in (2), the head nP (that is, the NP plus functional extended projections not including D and K) merges with a functional relative clause head. The relativizing clause is adjoined to (or perhaps in specifier of) this functional projection F₂P (=RelP)

The Genitive DP (*his*) is merged in a structurally superior position as Specifier of a functional Possessive head F₁P. (=PossP) the complement of this functional head is the relative clause. This captures the possessive relation that holds between the genitive DP and the relative clause as a whole, as well as that holding between the genitive DP and the (lexical not functional) head of the relative clause.

The Possessive DP (*his*) c-commands into the relative clause, and into the relativising clause, and it controls the thematic role feature [Agent]. This allows for the interpretation of the genitive as the agent of the clause.

3. Relationship between the Genitive DP and the Relative Clause Head

In the preceding section we stated that there is a relation between the genitive DP and the head of the relative clause. Evidence for this can be found in the fact that certain aspects of this relation are encoded in the genitive marker itself. In most Polynesian languages, possession is indicated by a pre-nominal marker, and this marker varies depending on the relation between the possessor and the possessum; *a* indicates possessor dominance over the possessum, while *o* indicates lack of possessor-dominance (or default). In Hawaiian, for example, as discussed in detail by Hawkins (2000), the possessor-possessum semantic marking between the agent and patient is upheld in the possessive-relative. In the following examples we see this relation expressed between the genitive and the head of the relative in the Genitive Relative construction.

(8) Hawaiian

- a. nā mea a pau a Pāka'a e mālama ana
 thing all GEN T/A care for
 'all of the things that Pāka was caring for'
 (Hawkins 2000:133)
- b. nā lā o Pai'ea i noho ai ma Hawai'i
 day GEN T/A live/stay
 'the days that Pai'ea lived/stayed on Hawai'i'
 (Hawkins 2000:133)

The fact that the genitive does or does not have control over the possessum in these examples is determined by the roles the two NPs play in the relativising clause, and this is reflected in the choice of genitive marker. In (8a) the genitive DP, marked with *a*, is seen as dominant over the things cared for, while in (8b), the genitive DP, marked with *o*, has no control over time.

There is potentially an additional argument that there is some form of relation between the head and the genitive argument in the genitive relative construction. In regular DPs with a genitive possessor and a possessum, it is possible for the possessum to appear either before (9a) or after (9b) the possessum

(9) Māori

- a. tā Hēmi pū
 the.GEN Hemi gun
 'Hemi's gun'
- b. te pū ā Hēmi
 the gun GEN Hemi
 'Hemi's gun'

(Foster 1987:60)

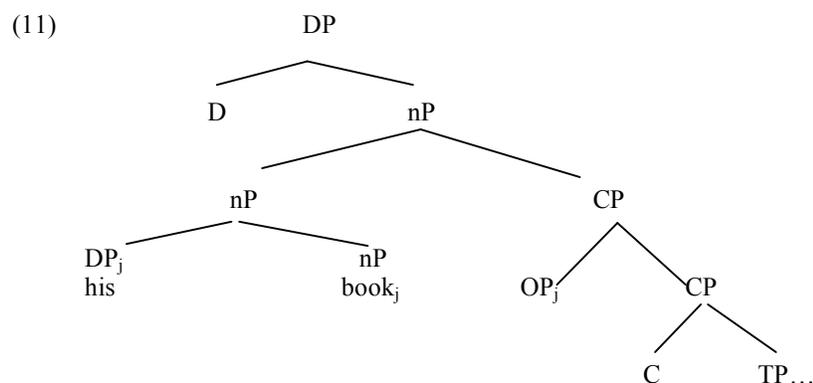
The same alternations are found between the genitive and head nominal phrase in the genitive-relative construction.

(10) Māori

- a. ka mōhio ahau ki t-ā Hone tangata i kōhuru ai
 T/A know I to the+GEN John man T/A murder RESPRN
 "I knew the man that John murdered" (lit. John's man)
- b. ka mōhio ahau ki te tangata a Hone i kōhuru ai
 T/A know I to the man PERS John T/A murder RESPRN
 "I knew the man that John murdered" (lit. man of John)
 (Bauer 1997:3716f)

In Niuean the possessed nominal may precede the possessor only if it is a proper name or a pronominal. The same constraint is operative in case of the genitive-relative construction, arguing that the same mechanisms are involved.

An alternative to the structure we are proposing in (7) would be (11), where the genitive DP “possessor” and head form a constituent that is independent of the relativizing clause. Based on the alternation of position of the possessor with the relative clause head, Seiter (1980) suggests the constituency in (11) for the Niuean genitive relative construction.



This structure would capture the possessor-possessum relations discussed above, but it would rule out a control (or raising) analysis between the genitive and the agent role in the relativising clause, since there would not be a c-command relation between them. Further evidence against (11) comes from double-possessor example in Niuean, where the head contains a ‘true’ possessor in addition to the genitive-relative genitive DP. Examples in (12) have been judged acceptable by native speakers of Niuean.

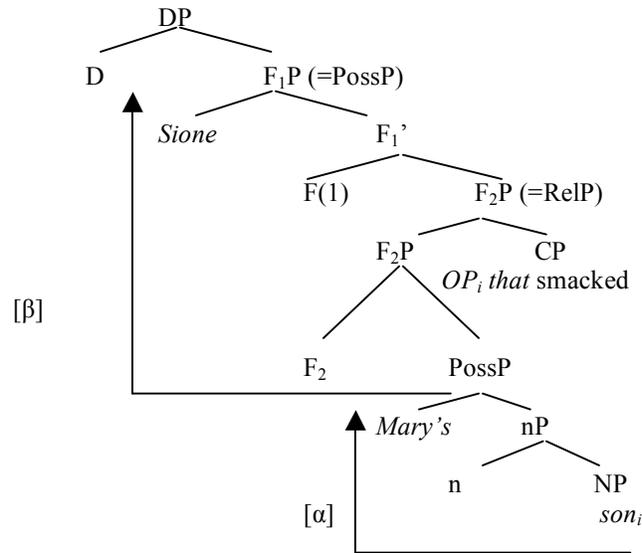
(12) Niuean

- a. Ko e tama taane ha Mele ne fahi e Sione.
Ko ABS child boy of Mary that-past smacked ERG Sione
 ‘It was Mary’s son that Sione smacked.’
- b. Ko e tama taane ha Mele ha Sione ne fahi
Ko ABS child boy of Mary of Sione that-past smacked
 ‘It was Mary’s son that Sione smacked.’

(FieldNotes:2001)

Such examples provide evidence that there must be a PossP phrase within the head nominal phrase in which to merge the true possessor (Spec, PossP). The position of the genitive in (11) must therefore be reserved for this true possessor, thus we need another position, external to this one, in which to merge the genitive phrase of the genitive-relative construction. For this reason, as well as to maintain the c-command relation between the genitive and the relativizing clause so as to allow for a control relation, we maintain the analysis in (7). To account for the preposing of the nominal around the possessor, we posit a movement operation as illustrated in (13).

(13)



In this structure, identical to (7), we see that a nominal ('son') can prepose around its possessor, as indicated by the movement [α]. Later in the derivation, the same fronting operation can take place, as indicated by the movement [β], moving the relative clause head ('Mary's son') to a position in front of the Genitive DP 'Sione'. We remain neutral in this paper as to exactly what position the nominals are moving to, and as to the motivations for these movements. Of particular interest is that in the second movement, the head of the relative clause ('Mary's son') undergoes preposing rather than the entire relative clause. To discuss all details here would take us beyond the constraints of this short paper, however see Kahnemuyipour and Massam (to appear) for further discussion of word order variation within Niuean DPs.

4. Relationship between Possessor and Agent

We have noted above that the genitive DP in the Genitive Relative construction is interpreted as the thematic agent of the event within the relativizing clause. The problem we address in this section is how to derive this relation.

Clark (1976) proposes a rule of G-Raising (G=genitive) to account for this relation, in which the thematic agent of the relativizing clause raises to a genitive-marked position in the higher clause.⁴ This would account for the thematic relations in the clause, however, there is counter-evidence from Niuean, as outlined below.

In Niuean, raising targets both subjects (14b, 15b) and objects (14c, 15c).

(14) Niuean (Raising to S)

- a. To maeke [ke lagomatai he ekekafo e tama ē]
 FUT possible SBJV help ERG doctor ABS child this
 'The doctor could help this child.'
 (i.e. "It is possible for the doctor to help this child")
- b. To maeke e ekekafo [ke lagomatai e tama ē]
 FUT possible ABS doctor SBJV help ABS child this
 'The doctor could help this child.'
 (i.e. "The doctor is able to help this child")
- c. To maeke e tama ē [ke lagomatai he ekekafo]
 FUT possible ABS child this SBJV help ERG doctor
 'This child could be helped by the doctor.'
 (i.e. "This child is possible for the doctor to help.")
 (Seiter 1980:158)

(15) Niuean (Raising to O)

- a. To nākai toka e au [ke kai he pusi e ika]
 FUT not let ERG I SBJV eat ERG cat ABS fish
 "I won't let that the cat eat the fish."
- b. To nākai toka e au e pusi [ke kai e ika]
 FUT not let ERG I ABS cat SBJV eat ABS fish
 "I won't let the cat eat the fish."
- c. To nākai toka e au e ika [ke kai he pusi]
 FUT not let ERG I ABS fish SBJV eat ERG cat
 "I won't let the fish be eaten by the cat"
 (Seiter 1980:196)

On the other hand, as Seiter (1980) demonstrates, control targets subjects only as illustrated in (16). Note that a pronoun is required in (16c).

⁴ It should be mentioned, though, that Clark does not express conviction that this is the right analysis, rather he suggests (p. 118) that a base-generated analysis might be preferred.

(16) Niuean (Control)

- a. Fia loto a ia [ke tā e fāloku]
 AUX want ABS he SBJV play ABS flute
 "He wants to play the flute."
- b. Kotofa tuai e lautolu a au [ke holoholo e tau kapiniu]
 choose PERF ERG they ABS me SBJV wash ABS PL dish
 "They chose me to wash the dishes."
- c. Kua lali lahi e kapitiga haau [ke sake e au a ia]
 PERF try really ABS friend your SBJV sack ERG I ABS him
 'Your friend is really trying to get me to sack him.'
 (Seiter, 1980:136-137)

If the Genitive-relative is a raising construction, we would expect the genitive DP to be able to be co-referential with either the subject or the object of the relativizing clause, incorrectly predicting the grammaticality of (17).

(17) Niuean (Genitive-Relative)

- *e namu haana ne gagau
 ABS mosquito his that bite
 'The mosquito which bit him'⁵

Seiter (1980:98)

We conclude from this that the relationship between the Genitive DP and its co-referent in the relativizing clause is not established via raising. The possibility remains that the relationship may be one of control (but not, given the point just made, control-as-raising - i.e. Hornstein 1999). In this analysis, assuming a traditional theory of control, the thematic agent is PRO, merged as external argument of the relativizing clause, and controlled by a c-commanding genitive-marked DP in the matrix clause.

There is evidence against this control analysis of the Genitive-relative construction also, found in Māori. In this language, relativization is usually only possible from subject or oblique position as shown in (18) and (19).

(18) Māori (Relativization from subject)

- ka mōhio ahau ki te wahine e waiata ana i te huarahi rā
 T/A know I to the woman T/A sing T/A ACC the street DEIX
 "I know the woman that is singing in that street"
 (Bauer 1997:3701a)

⁵ Seiter (1980) notes that this sentence is grammatical with the unusual meaning "The mosquito which he bit."

(19) Māori (Relativization from object - ungrammatical)

*ka mōhio ahau ki te tangata i kōhuru a Hone
 T/A know I to the man T/A murder PRES John
 ‘I knew the man that John murdered’

(Bauer 1997:3716)

Māori does not permit relativization directly on the object of a canonical transitive. The object must be placed in a derived subject position, either via passive (20a), Actor-Emphatic (20b), or genitive-relative (20c).

(20) Māori (Relativization on derived subject)

a. ka mōhio ahau ki te tangata i kōhuru-tia e Hone
 T/A know I to the man T/A murder-PASS by John
 ‘I knew the man that was murdered by John’

b. ka mōhio ahau ki te tangata nā Hone i kōhuru
 T/A know I to the man GEN-pst John T/A murder
 ‘I knew the man that was murdered by John’

c. ka mōhio ahau ki tā Hone tangata i kōhuru ai
 T/A know I to the-GEN John man T/A murder RESPRN
 ‘I knew the man that John murdered’ (Lit. John’s man)

(Bauer 1997:3716)

The Genitive-relative construction allows relativization on underlying direct objects by placing them in a derived subject position. More evidence that the underlying direct object is actually a surface subject comes from *Ko*-topicalization. Subjects can be topicalized via extraction to the left periphery and receive pre-nominal marking with *ko* (21b). Objects cannot (21c).

(21) Māori (*Ko*-topicalization)

a. I kite te pirihihana i te tamaiti
 T/A find the policeman ACC the child
 ‘The policeman found the child’

b. Ko te pirihihana i kite i te tamaiti
Ko the policeman T/A find ACC the child
 ‘As for the policeman, he found the child’

c. *Ko te tamaiti i kite te pirihihana

(Pearce 1999:7)

Ko-topicalization of underlying direct objects is licensed out of passives (22a), actor-emphatic (22b), and genitive-relative clauses (22c).

(23) Māori (*Ko*-topicalization)

a. Ko te tamaiti i kite-a e te pirihihana
Ko the child T/A find-PASS by the policeman
 ‘The child was found by the policeman’

b. Ko te tamaiti nā te pirihihana i kite
Ko the child GEN-pst the policeman T/A find
 ‘It was the policeman that found the child’

(Pearce 1999:8-9)

c. Ko te whare a te mōkai rā i moe ai...
Ko the house GEN the slave DEIX T/A sleep RES.PRN.
 ‘The house where that servant slept...’

(Bauer 1997:577)

It is clear that if the operator of the relative clause is the (surface) subject of the relativizing clause, then logically the genitive cannot be controlling into a subject position, since this position is thematically filled by the trace or copy of the moved relative pronoun or operator. Since traditional/structural control only targets PRO in subject position, the relationship between the genitive DP and its coreferent cannot be one of syntactic control.

The possibility exists that the relationship is not one of syntactic control, holding between an DP and an empty position, but rather, one of semantic control, holding between a DP and a feature or a theta role. For example, Manzini & Roussou (2000) propose an analysis of control that involves semantic control by an antecedent of a theta feature (e.g. [originator], similar to agent). This approach is promising, but the lack of an available structural position for the controlled feature remains problematic for Māori.

In such an analysis, the external theta role [OR] in a sentence such as (20b), for example, cannot be checked within the embedded clause, since there is no external argument within the clause. This is not a problem in infinitival clauses because there is no C phase. The feature can be left unchecked until an argument in a higher clause is merged and can subsequently Agree. However, on Manzini and Roussou’s assumptions, because the relative clause in the Genitive-relative construction is a tensed CP, the derivation should crash at the C phase. Perhaps evidence can be found that Polynesian relativizing clauses do not constitute phases, but this is not clearly the case, given the T/A markers that appear within such clauses.

It appears, therefore, that the Genitive-relative constructions in Polynesian languages necessitate a form of semantic control in which the genitive-marked DP in the matrix clause “controls” into the theta-grid of the relativizing clause verb without controlling into a particular structural position or element. This control appears to occur across the phase, although this requires more examination. Interpretation of the Genitive DP as a thematic agent of the relativizing clause predicate is a direct result of the semantic composition process.

5. Conclusion

In this paper we have argued the following points.

The genitive-relative construction is one in which the agent of the relative clause is externally merged as a genitive-marked DP. It does not form a constituent with the head of relative clause or the relativizing clause itself but is in a structurally superordinate position to both.

The genitive DP c-commands the Relativising clause and is its thematic agent, suggesting the possibility of a raising or control relation between them.

We presented counter-evidence against both raising and structural control analyses, and suggested that the relation is one of purely semantic control.

Further research will determine more precisely the nature and mechanics of this “new” type of control, especially with regards to its facility in accounting for a number of potentially related constructions such as the Malagasy “bodyguard” (Paul, 2003), Tongan nominalizations (Tchekhoff, 1981, Dukes 1996), the Māori actor-emphatic (Clark, 1976; Chung, 1978), and English *it’s her decision to make*.

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