# THE DISTRIBUTION OF THE MĀORI

## GENITIVE RELATIVE CONSTRUCTION<sup>1</sup>

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#### Abstract

This paper focuses on the genitive relative construction (GRC) in Māori. The GRC is a type of relative clause construction that can be used to relativize non-subject DP positions, and it has been described in the literature as a means of getting around an extraction restriction on direct objects. We show that the distribution of the GRC is wider than generally described, and we argue that a split-ergative analysis of Māori, following Pucilowski (2006), better captures this distribution.

**Keywords**: genitive relative construction, relative clauses, genitive subjects, Polynesian, Māori, syntax

ISO 639-3 codes: mri, jpn

### 1 Introduction: the genitive relative construction (GRC) in Māori

Māori, an Eastern Polynesian language, allows a relative clause structure that has been called the genitive relative construction (GRC). The GRC, found in several other Polynesian languages as well, is generally characterized as follows: the agent of the relativized clause surfaces with genitive marking and appears to possess the head noun. An example is given in (1).<sup>2</sup>

(1) Ka mōhio ahau ki kōhuru ai Hone [i tangata a  $\emptyset_{Subi}$  $\emptyset_{obi}$ ] TAM murder PART know 1s<sub>G</sub> OBJ the man John 'I knew the man that John murdered.' (Bauer et al. 1997:570)

Genitive subjects in relative clause constructions in Altaic languages have attracted attention (see, for example, Krause 2001, Kornfilt 2008, Miyagawa 2011); an example of such a sentence in Japanese is given in (2). The GRC in Polynesian, however, is an understudied construction, and it raises interesting syntactic and semantic puzzles. Some of the first attempts to provide a detailed formal syntactic analysis of the Polynesian GRC were Herd et al. (2005), Herd et al. (2011), and Otsuka (2010), which discuss several properties of the construction.

(2) [Mary-ga/no aishiteiru] otoko-o mita. [Japanese]

Mary-NOM/GEN love.PRS.PROG man-ACC saw.

'I saw the man who Mary-NOM/GEN loves.' (Krause 2001:36)

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The following abbreviations are used in glosses: AGT = agent, CIA = passive/Pattern II, DIR = directional, PART = particle, PERS = pronoun/proper name, PREP = preposition, TAM = tense/aspect/mood. All other glosses follow the Leipzig glossing rules.

In this paper, we will provide a characterization of the GRC's distribution, with a focus on two main questions: (i) What is it that gets genitive-marked? and (ii) What position gets relativized? We will present two puzzles regarding the distributional patterns of the GRC, and we will show that one of those puzzles goes away if we adopt Pucilowski's (2006) analysis of Māori as a split-ergative language, in turn providing support for that analysis. Finally, we will show that the GRC has a wider distribution than generally assumed, and we will discuss the implications of these facts on syntactic analyses of the construction.

We leave as a topic for future research the mechanism that allows the subject of a relative clause to end up with genitive case outside of the clause. Furthermore, we restrict our focus to the GRC in Māori and its relationship with other aspects of Māori syntax, and leave comparative work on other Polynesian languages for future work as well.

#### 2 Relative clause formation in Māori

Māori is a predominantly VSO language with multiple strategies for relativization, which have been described in detail by Bauer et al. (2003). The primary relative clause strategy, known as the 'gap strategy', has the relativized position realized as a gap inside the relative clause, as in (3). Schematically, we can represent this as in (4).

- (3) Ko tēnei te tangata [i tae tōmuri  $\emptyset_{Subj}$ ]. mai PREP DEM.PROX the person TAM arrive late DIR 'This is the man who arrived late.' (Kelly 2015:67)
- (4) D NP  $[Op_1 [V \emptyset_{Subj_1} (DP_{obj})]]$

The GRC, as described by Bauer et al. (2003), differs from simple relativization in two main respects. First, the GRC has two gaps – in addition to the expected gap for the relativized position, it has a gap for the agent (or, as we will see later, the experiencer) of the relative clause verb. Second, the agent surfaces to the left of the relative clause, marked with genitive case, as in (6). The genitive-marked DP thus appears to be in a possessor-possessee relationship with the head of the relative clause. The simple, non-relativized version of (6) is provided in (5).

- (5) I  $k\bar{o}huru$  a Hone i te tangata.

  TAM murder PERS John OBJ the man.

  'John murdered the man.'
- (6) Ka mōhio ahau ki te tangata **a Hone** [i kōhuru ai  $\emptyset$ subj  $\emptyset$ obj]. TAM know 1SG OBJ the man **of John** TAM murder PART 'I knew the man that John murdered.' (Bauer et al. 1997:570)

It should be noted that relative clauses that use the GRC are obligatorily marked with the postverbal particle ai (however, this particle is suppressed in the presence of the postverbal deictic markers nei,  $n\bar{a}$ , and  $r\bar{a}$ , as well as the imperfective marker ana).

The GRC in Māori may also occur without an overt head noun, as in (7), (8), and (9). In these cases, the head noun does not appear in the sentence at all.

(7) Kia mea-tia  $t\bar{a}u$  Ø [e pai ai Ø<sub>Subj</sub> Ø<sub>obj</sub>]. TAM do-CIA **2SG.POSS** TAM like PART 'Thy will be done ('Let that be done which you like.').' (Harlow 2007:186)

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(8)
                                         taku
                                                       ringa
                                                                        ſί
                    ko
                              t-ā
                                                                                  ngaki
                                                                                               ai
                                                                                                         \emptyset_{Subj}
                              the-of
                                         1SG.POSS
                                                        hand
                    TOP
                                                                        TAM
                                                                                  cultivate
                                                                                               PART
                              waiho
                                                        ki
         Øobi]
                                         tēna
                    me
                                                                         au.
                              leave
                                         DEM.PROX
                                                                 PERS
                                                                        1s<sub>G</sub>
                    TAM
                                                       to
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"...what my hand has cultivated, that should be left for me." (Bauer et al. 1997:583)

(9) Me whakarongo tātou ki **a rātou** Ø [e mea nei Øsubj Øobj].

TAM listen 1PL.INCL to **the.of 3PL** TAM say PROX

'We'd better listen to what they are going to say.' (Bauer et al. 1997:583)

In GRC configurations, a possessor of the form a/o + noun may occur either before or after the possessed noun.<sup>3</sup> This is a general feature of possessive phrases in Māori and is not specific to the GRC. When preposed, genitives are composed of the definite article joined with the a/o + noun construction. This can be seen overtly when the possessed noun is singular, as in (8). When the possessed noun is plural, it is marked by a null morpheme and as such appears to lack a determiner, as in (9). The important point here is that the meaning of the relative clause does not change based on the position of the genitive-marked DP.

In the following section we will focus on the identity of this genitive-marked item in the context of the GRC, looking precisely at which grammatical positions can surface with genitive marking.

### 3 What gets genitive-marked?: not always subjects (Puzzle 1)

The GRC has been described as a method of relativizing upon canonical transitive sentences; its head noun (which is 'linked' to the direct object position of the relative clause via abstraction over that position) is modified by a genitive-marked subject (Herd et al. 2011, Otsuka 2010). This is represented schematically in (10), which corresponds to (6) above.

(10) Genitive subject the man **of John**<sub>2</sub> [Op<sub>1</sub> murdered  $\emptyset_{Subj_2} \emptyset_{obj_1}$ ]

'the man that John murdered'

Interestingly, however, not all clauses that can undergo relativization using the GRC are canonical transitive clauses. Specifically, the GRC can be used to relativize on at least some passive constructions. Such constructions have thus far not been described in the literature on the GRC. In these sentences, the genitive-marked noun does not correspond to the grammatical subject of the relative clause, but rather seems to correspond to an oblique DP (what can be thought of as the *by*-phrase of a passive). To illustrate, in (11) the GRC appears to relativize on the subject of a passive construction, leaving the oblique DP to receive genitive marking. We show this schematically with English lexical items in (12); (a) has the gap for the relativized noun, and (b) adds the gap for the oblique DP. (An example of a simple passive sentence can be found in (14) in the next section.)

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The distinction between a and o has to do with the real-world relationship between possessors and possessees. In general, a-possession encodes a relationship in which the possessor has control over the possesse, while o-possession encodes the lack of such a relationship (though see e.g. Biggs (1969), Hohepa (1967), Bauer et al. (2003) for more detailed discussion). According to Bauer et al. (2003), the possessor in a GRC configuration takes the form a + noun when the direct object is relativized but may take the form o + noun when an oblique noun associated with an intransitive verb is relativized (570, 577).

(11)	Ko	tōna	ngākau	kīhai	i	wareware	ki	tana	теа
	PRED	3sg.poss	heart	NEG	TAM	forget	OBJ	3SG.POSS	thing
	[i	kite-a	ai	$\emptyset_{Subj}$	Øbyphrase]	hei	taonga	mōna.	
	TAM	see-CIA	PART			PREP	treasure	for.3sg	

'His heart did not forget his thing that he had seen that would be a treasure for him.' (Grey 2001:174)

- (12) a. thing [which<sub>1</sub>  $t_1$  was seen by him]
  - b. **his** thing [which<sub>1</sub>  $t_1$  was seen (by)  $\emptyset$ ]

In the next section, we will consider an analysis of Māori as a split-ergative language, put forth by Pucilowski (2006), and we will show that the asymmetry we have just described goes away under that analysis.

### 4 Split-ergativity and the GRC

### 4.1 Māori as a split-ergative language

Māori has traditionally been described as a nominative-accusative language with an active and a passive construction, shown in (13) and (14), respectively. In this section we will be questioning whether these are really cases of active and passive, so to avoid confusion, we will henceforth use the neutral labels "Pattern I" for what has been called the active and "Pattern II" for what has been called the passive, following Clark (1976).

- (13)Ekai tamariki i Pattern I ngā āporo. ana ngā TAM eat TAM the.PL children OBJ the.PL apple 'The children are eating the apples.' (Bauer et al. 1997:40)
- (14) I patu-a te kuri e te tamaiti. Pattern II

  TAM hit-CIA the dog AGT the child

  'The dog was hit by the child.' (Bauer et al. 1997:42)

The status of the Māori passive has long been a topic of interest, as it does not behave how we might expect a passive to behave. For example, the passive in Māori is much more frequent than the passive in other languages, and it occurs particularly often in past tense narratives (for further discussion see Clark 1976).

The debate over the passive has led some to propose that Māori is in fact an ergative language (e.g. Sinclair 1976, Modini 1985). In an ergative language, the subject of an intransitive verb and the object of a transitive verb pattern together, while the subject (or agent) of a transitive verb behaves differently. If we were to adopt this analysis for Māori, what we have been calling the passive would actually be the basic sentence type in the language: an active sentence with ergative marking.

Pucilowski (2006) unites the two sides of the debate by proposing that Māori is in fact a split-ergative language. This split, she argues, is based on the transitivity of a clause (see Otsuka 2011 for a similar proposal). Transitivity here is understood in the sense of Hopper and Thompson (1980). It involves several factors and is a property of an entire clause. For Pucilowski, the relevant factors for Māori include the number of participants, the clause's aspect, the affectedness of the direct object, and the notion of dynamism (as opposed to stativity). At least one of these features must be present in an ergative clause.

Under Pucilowski's analysis, constructions traditionally called 'active' (our Pattern I) have nominative-accusative alignment and are used in sentences with low transitivity, and constructions traditionally called

'passive' (our Pattern II) have ergative-absolutive alignment and are used in high transitivity sentences. We can see this difference play out in the domain of aspect by comparing (15) and (16).

- (15)EPattern I (low transitivity) Huia  $kur\bar{\iota}$ . ere ana a ngā TAM **PERS** Huia OBJ the.PL dog tie TAM 'Huia was tying up the dogs.' (Bauer et al. 1997:477)
- (16) I here-a e Huia ngā kurī. Pattern II (high transitivity)

  TAM tie-CIA AGT Huia the.PL dog

  'Huia tied up the dogs.' (Pucilowski 2006:44)

The case-marking patterns for the two types of sentences are given in Table 1 (from Pucilowski 2006). The letters A, S, and O refer to the Agent of a transitive clause, the Subject of an intransitive, and the Object of a transitive, respectively, as is standard in descriptions of ergative alignment.

	Ergative	(Pattern II)	Accusative	(Pattern I)	
	Case	Particle	Case	Particle	
A	ergative	e	nominative	Ø	
S	absolutive	Ø	nominative	Ø	
O	absolutive	Ø	accusative	i/ki	

**Table 1:** Split-ergative marking in Māori

Pucilowski's split-ergative proposal draws on evidence from topicalization, question formation, and relative clauses. All three clause types have relative clause-like structure and allow the use of the GRC in some instances. It should be noted that topicalization and question formation have been analyzed as pseudo-clefts or as having relative clause-like structure in Māori and related languages, so the availability of the GRC in these cases is not surprising; see Potsdam and Polinsky (2011).

According to Pucilowski, topicalization and question formation behave slightly differently from relativization when it comes to the strategies they use for displacement, yet all three show evidence of split-ergativity. We will briefly describe her generalizations for topicalization and question formation below; for examples and further discussion on these constructions, see Pucilowski (2006). We will then go through the data for relative clauses in more detail, drawing attention to a slight modification needed for Pucilowski's conclusions to capture a fuller range of data.

In topicalization and question formation, Pattern II (high transitivity) clauses use the gap strategy for relativization on S and O, but this strategy is unavailable for A, which uses a construction called the actoremphatic (see (17) below). Pattern I (low transitivity) clauses, on the other hand, use the gap strategy on S and A, and the GRC on O, where the gap strategy is unavailable.

High transitivity (Pattern II)

A actor-emphatic 

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Table 2: Availability of gap strategy in topicalization and question formation

Relative clauses present a slightly different picture for Pucilowski. She argues that high transitivity clauses have ergative alignment, while low transitivity clauses have a neutral pivot, with all of S, A, and O using the gap strategy of relativization.

	, , , , , , , , , , , , , , , , , , , ,							
	High transitivity (Pattern II)	Low transitivity (Pattern I)						
A	actor-emphatic	✓						
S	✓	✓						
0	./	_/						

**Table 3:** Availability of gap strategy in relative clauses

The bottom-right cell of Table 3 stands out because it is different from the corresponding cell in Table 2, and different from how we characterized the distribution of the GRC in Section 2. We will therefore walk through some of the data that give us the generalizations in Table 3.

Let us begin by considering the strategies used to relativize the agent of a transitive verb (the first row in Table 3). Because relativization on high transitivity agents is not possible using this method, speakers employ the so-called 'actor-emphatic' construction.

The actor-emphatic, found in several Eastern Polynesian languages and described by Bauer et al. (2003) for Māori, has the agent appearing at the beginning of the sentence, accompanied by a possessive preposition. Meanwhile, the patient NP surfaces without the direct object marker i and instead has the null marking reserved for subjects. An example is given in (17).

(17) Nā Rewi i whāngai ngā manu.

POSS Rewi TAM feed the.PL bird

'Rewi fed the birds.' (Bauer et al. 2003:91)

An example of relativization on the agent of an actor-emphatic construction can be seen in the sentence in (18).

(18)Kua tae mai kōtiro [nāna hoki mai ngā whurutu]. arrive hither the girl POSS.3SG buy TAM TAM hither the.PL fruit 'The girl who bought the fruit has arrived.' (Bauer 1982:324)

Given Pucilowski's analysis, we expect that relativization using the actor-emphatic should be in complementary distribution with the gap strategy. Crucially, this complementary distribution should be based on the transitivity of the clause. This prediction is in fact supported by the judgments of Pucilowski's informants. She notes that, whereas relativization on a highly transitive underlying sentence uses the actor-emphatic construction, as in (18), the simple gap strategy is preferred for sentences lower on the transitivity scale (19).

(19)koroheke [i Ka  $t\bar{u}$  $an\bar{o}$ arahi mai taua rā  $\emptyset_{Subi}$ . old.man TAM hither TAM stand again DEM lead **PROX** i Puhihuia]. aOBJ **PERS** Puhihuia

'The old man who had led Puhihuia here stood up again.' (Bauer et al. 1997:566)

Now, moving to the S row of the Table 3, we expect to see the gap strategy available for the subjects of all intransitive verbs, and this is exactly what we find.

(20) te tamaiti [i mate  $\emptyset_{Subj}$ ]. the child TAM die 'the child that died' (Orbell 1968:8)

Finally, we can examine the behavior of direct objects (the final row in Table 3). Direct objects in Pattern II (high transitivity) clauses can be relativized using the gap strategy, as in (21).

(21)Ι waiata Inia waiata ſί ate titoa е TAM sing OBJ compose.CIA **PERS** Inia the song TAM AGT Alfred Hill]. Alfred Hill

'Inia sang the song that Alfred Hill composed.' (Bauer 1982:312)

The data for the bottom-right cell of the table is slightly more complicated. Pucilowski is correct in pointing out that some Pattern I sentences do in fact allow extraction using the gap strategy, specifically those sentences with imperfective aspect, such as (22). It is from this data that she concludes that low transitivity sentences have a neutral pivot when it comes to relative clauses. However, it is also true that the gap strategy is unavailable for the objects of many Pattern I sentences, such as (23).

- (22)Ι hoko mai ana ia i ngā kūmara [e whakatipu buy here PERS 3SG OBJ the.PL kumara TAM make.grow TAM TAM Hata ana а  $\emptyset_{obi}$ ]. **PERS** Hata TAM 'He buys the kumara Hata grows.' (Bauer 1982:316)
- (23)\*Ihoko mai whare ia i ſί hanga Hata  $\emptyset_{obi}$ ]. te hither he build TAM buy OBJ the house TAM **PERS** Hata Intended: 'He bought the house Hata built' (Bauer 1982:310)

Both (22) and (23) are Pattern I sentences, yet they differ in whether the gap strategy is possible. Assuming (following Hopper and Thompson 1980) that perfective clauses are higher on the transitivity scale than imperfective clauses, the data above suggest that there are more gradations of transitivity than a simple "high/low" dichotomy might suggest. Still, it seems clear that transitivity plays a significant role in determining the availability of relativization strategies in Māori.

#### 4.2 The GRC under a split-ergative analysis

Under the split-ergative analysis, the identity of the genitive-marked noun receives a more natural characterization. Pattern II clauses use the gap strategy on S and O, but not A, while Pattern I clauses use the gap strategy on S and A, and not on O (with the caveat discussed in Section 4.1). These generalizations are summarized in Table 4.

	High transitivity (Pattern II)	Low transitivity (Pattern I)
A	×	✓
S	✓	✓

X

**Table 4:** Availability of gap strategy.

Now, if we analyze Pattern II sentences (previously 'passive') as ergative-absolutive constructions, then (11), repeated from above, is less surprising. Specifically, the puzzle regarding the grammatical position of the genitive-marked noun goes away. Under the split-ergative analysis, the genitive-marked noun in (11) is associated with the subject of the relative clause, while the object position is relativized, just like in a Pattern I relative clause that uses the GRC. This is schematized in (24a), which contrasts with the passive analysis in (24b), where the relativized position is the subject.

(11)	Ko	tōna	ngākau	kīhai	i	wareware	ki	tana	теа
	PRED	3sg.poss	heart	NEG	TAM	forget	OBJ	3sg.poss	thing
	[i	kite-a	ai	$\emptyset_{subj}$	$\emptyset_{byphrase}$	hei	taonga	mōna.	
	TAM	see-CIA	PART			PREP	treasure	for.3sG	

<sup>&#</sup>x27;His heart did not forget his thing that he had seen that would be a treasure for him.' (Grey 2001:174)

(24) a. Ergative analysis: **his** thing [which<sub>1</sub>  $\emptyset$  saw t<sub>1</sub>]

 $\mathbf{O}$ 

b. Passive analysis: **his** thing [which<sub>1</sub>  $t_1$  was seen (by)  $\emptyset$ ]

 $\checkmark$ 

Adopting the split-ergative analysis allows us to more naturally characterize the GRC's distribution as that of a relativization strategy for structural positions that are less accessible (in the sense of Keenan and Comrie 1977) than subjects. Characterizing the GRC in this way removes the need to explain the availability of the GRC for a particular class of subjects.

### 5 What position gets relativized? (Puzzle 2)

We now turn to the question of which grammatical positions can undergo relativization using the GRC. As we saw above, there is an extraction restriction on the direct object of Pattern I sentences: these sentences cannot be relativized with the gap strategy (unless they have imperfective aspect). In light of this restriction, the GRC has been described as a kind of "rescue strategy" allowing one to circumvent the extraction restriction and relativize on the direct object of a canonical transitive verb, as in Herd et al. (2011), which assumes that the underlying object in the GRC moves out of the object position before being extracted.

While it is true that the GRC allows relativization on direct objects, framing it as a rescue strategy obscures the fact that the GRC has a wider distribution than just relativization on direct objects. In this section we will sketch this wider distribution.

### 5.1 The GRC as a rescue strategy

Herd et al. (2011) proposes that, next to passivization (25) and the Māori actor-emphatic construction (26), both of which can be analyzed as having an underlying direct object that surfaces in subject position (Herd et al. 2011), the GRC in Polynesian is yet another way to get around the well-known extraction restriction on relative clause formation in Polynesian languages, i.e., the impossibility of relativizing directly upon the direct object position. In the passive and actor-emphatic sentences below, the relevant arguments are in bold. These arguments appear with the null marking usually associated with subjects.

- (25)Ka inu-mia wai. Passive/Pattern II e te tangata te water TAM drink-CIA AGT the the man 'The water is drunk by the man.' (Clark 1976:67)
- (26)Νā Rewi i whāngai **te** kūau kau. Actor-emphatic POSS Rewi TAM feed the baby.animal cow 'Rewi fed the calf.' (Bauer 1991:9)

Herd et al. (2011) takes the actor-emphatic construction to involve an underlying object moving to the subject position, similar to a passive. Then, assuming that both the passive and the actor-emphatic allow one to relativize on an underlying direct object by placing the object in a derived subject position, Herd et al. (2011) argues that the GRC also involves a derived subject position (27). The analogous, and more familiar, passive construction is given in (28). The authors put forth an accessibility-based analysis in which direct objects cannot undergo relativization, so the relativization site in the GRC must therefore be some other position.

- (27) Derived subject in a GRC: D NP **of-DP**  $[Op_1 [V t_1 t_{obj_1}]]$
- (28) Derived subject in a passive: D NP  $[Op_1[V-PASS t_1 t_{obj_1}]]$

In the next section we will show that characterizing the GRC as a rescue strategy is somewhat misleading, as that would imply a narrower distribution of the construction than we actually see.

## 5.2 Wider distribution of the GRC: other relativized positions

Under the accessibility-based analysis proposed in Herd et al. (2011), the GRC is characterized as a rescue strategy that is used in Pattern I sentences when relativization on the direct object position is unavailable. We will now show that the GRC has a wider distribution than is straightforwardly predicted by that analysis. In particular, we will show that along with relativizing the direct objects of Pattern I sentences, the GRC can be used to relativize Pattern II objects (as discussed in Section 4.2), as well as oblique DPs and the objects of experience verbs (Bauer et al. 2003:577).

First, as we have already seen, the GRC is compatible with relativization on the object position in a Pattern II (previously 'passive') sentence (11, repeated from above). It should be noted that in a nominative-accusative analysis of Māori, where such sentences are indeed passives, the relativized position in (11) would be the subject. This is unexpected if the GRC is characterized purely as a rescue strategy. In other words, there is no extraction restriction here, so we lose the hypothesized motivation for the GRC.

(11) Ko 
$$t\bar{o}na$$
  $ng\bar{a}kau$   $k\bar{\imath}hai$   $i$  wareware  $ki$   $tana$  mea PRED 3SG.POSS heart NEG TAM forget OBJ **3SG.POSS** thing [i kite-a ai  $\emptyset_{Subj}$   $\emptyset_{byphrase}$ ] hei  $taonga$   $m\bar{o}na$ .

TAM see-CIA PART PREP treasure for 3SG

We now present two more cases where the GRC cannot be characterized as a rescue strategy, as it is used to relativize on positions other than the objects of canonical transitive sentences. Crucially, these positions allow relativization using other (non-GRC) strategies, and so they do not need to be "rescued."

<sup>&#</sup>x27;His heart did not forget his thing that he had seen that would be a treasure for him.' (Grey 2001:174)

The first such case is that of oblique DPs, which permit relativization using the GRC (Bauer et al. 2003:577). In Māori, oblique DPs are DPs that are introduced by a preposition (usually ki). Oblique DPs can undergo direct relativization with a strategy other than the GRC (in the case of (29), with a resumptive pronoun).

(29)Tamahae Ko te tamaiti ſί mau nei be.caught PRED Tamahae the child TAM PROX **CAUS PERS** ia tarakihi]. te 3SG tarakihi the

'Tamahae is the child by whom the terakihi was caught.' (Bauer et al. 2003:54)

The example in (30) shows an oblique DP relativized using the GRC, schematized in (31).

(30)Ι hoe hoki waka kōtiro mai te rā muri te paddle hither behind the TAM also the **PROX** at girl canoe at rā i te wā ōna ſί rere rā  $\emptyset_{Subi}$ ki te **PROX** the time 3SG.POSS **PROX** the at TAM jump to wai  $\emptyset_{obla}$ ]. water

'The canoe had also rowed up behind the girl at the same time when she had jumped into the water.'
(Bauer et al. 1997:569)

(31) at **her** time [when<sub>1</sub>  $\emptyset_{Subj_2}$  had jumped into the water  $\emptyset_{oblq_1}$ ] 'at the time when she had jumped into the water'

Given that there is no restriction against relativizing oblique DPs, and the GRC is not the only strategy that can target the oblique position, a derived subject analysis is not motivated with respect to relativization on obliques.

The rescue strategy characterization of the GRC encounters a similar problem with relativization on the objects of experience verbs. Experience verbs in Māori are verbs that take two arguments, with neither passing all of the diagnostics for direct objects in the language (Bauer et al. 2003). These verbs generally have their second argument marked with ki. Examples include verbs such as  $p\bar{t}rangi$  'want',  $m\bar{o}hio$ , 'know', and wareware 'forget' (32).<sup>4</sup>

Experience verbs on the surface look similar to canonical transitives because they regularly occur in the passive or Pattern II, as in (33), but the two can be differentiated based on certain syntactic behavior. For instance, experience verbs differ from canonical transitives in that they do not appear in the actor-emphatic construction.

(32) Kua wareware au ki tana ingoa.

TAM forget 1SG OBJ 3SG.POSS name
'I have forgotten his name.' (Harlow 2007:109)

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An exception is the verb *kite* ("see"), which is marked with *i* (usually a direct object marker) even though it patterns syntactically with experience verbs (see Bauer et al. (2003) for more on experience verbs). Conversely, some direct objects of canonical transitive verbs are marked with *ki*, although *i* is much more common. This is not important for our purposes, except to say that the identity of the preposition does not determine whether a verb is a canonical transitive verb or an experience verb.

(33) Ka pīrangi-tia e ia ngā mea katoa.

TAM want-CIA by 3SG the.PL thing all

'All the things are wanted by him.' (Bauer et al. 2003:265)

Further evidence for this distinction is that the ki-marked arguments of experience verbs do not behave like those of canonical transitives when it comes to relativization. Unlike those of canonical transitives, objects of experience verbs can use the gap method, just like subjects, as we can see in (34).

(34)Ι tūtaki ki tamaiti Rewi  $\emptyset_{obj}$ ]. ia te ſί mōhio **PERS** 3sg the child Rewi TAM meet OBJ TAM know **PERS** 'He met the child that Rewi knew.' (Bauer et al. 2003:57)

Unlike subjects, however, objects of experience verbs can also be relativized using the GRC (35), schematized in (36).

- $\emptyset_{Subj}$  $\emptyset_{obi}$ ]. (35)Ko ſί tēnei te whare Hata pīrangi ai PRED this the house of Hata TAM want **PART** 'This is the house that Hata wanted.' (Bauer et al. 1997:569)
- (36) the house **of Hata**  $[\operatorname{Op}_1 \emptyset_{Subj_2} \text{ wanted } \emptyset_{obj_1}]$  'the house that Hata wanted'

Again, there is no motivation for the GRC to involve a derived subject position, as it is acceptable to relativize on the object of an experience verb with the gap method.

In sum, the GRC has a wider distribution than just direct object relativization, which is surprising under a pure rescue strategy analysis, and which suggests that the distribution of the GRC is better characterized as a strategy that is available whenever a noun other than the agent/experiencer is being relativized (because the agent/experiencer is reserved for the genitive-marked position). Further research should help determine whether such a characterization can shed light on the syntactic mechanisms underlying the GRC. A few such questions are put forth in the following section.

#### 6 Summary and next steps

Our goal was to characterize the distribution of the GRC by focusing on (i) what gets genitive-marked, and (ii) which position gets relativized. We showed that under a nominative-accusative analysis of Māori, the genitive-marked noun is not limited to subjects but is also available on the oblique DP in a passive. We then demonstrated that this apparent irregularity disappears under the split-ergative analysis of Māori, which Pucilowski (2006) argues for with independent evidence.

As for the question of which position gets relativized, we showed that relativization is not restricted to direct objects, and that the GRC is actually compatible with a wider range of relativized positions, some of which do not lend themselves to a characterization of the GRC simply as a rescue strategy.

As we said in Section 1, we need to leave for future research what the mechanism is for generating genitive subjects outside of their associated relative clauses. To understand the mechanism involved, we need to keep in mind questions such as (i) how we can capture the fact that genitive-marked arguments are always interpreted as subjects/agents in the relative clauses; (ii) whether there is any movement relation involved, and if so, what type of movement; (iii) what, if any, the connections are between the GRC and the actor-emphatic, and the Samoan Possessor-Agent-Goal (PAGO) constructions (Homer 2009).

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