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An investigation of the so-called 'passive' construction in
New Zealand Māori

Sally Akevai Te Namu Nicholas

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Abstract

This thesis investigates a (primarily) syntactic feature of New Zealand Māori traditionally and perhaps inappropriately known as the *'passive'* but designated as the p-construction in this work. This construction, in Māori, exhibits a number of characteristics that are not typical of passives cross linguistically. In particular, the p-construction has been anecdotally described as being inordinately frequently used in Māori. This thesis will verify this claim quantitatively. This thesis also finds that the two classes of two-participant verbs known as *'canonical'* and *'experiencer'* show different behaviour with respect to the preference for the p-construction. The p-construction in Māori also diverges from what is expected of passive constructions cross linguistically in that it is associated with higher rather than lower transitivity. This work argues that the p-construction is the unmarked transitive construction and that the so-called 'active' construction (referred to as the a-construction in this thesis) is mainly used for pragmatic reasons when the agent noun phrase is required as a pivot.

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List of Abbreviations

1SG.....	first person singular
1DEX.....	first person dual exclusive
1DINC.....	first person dual inclusive
1PLEX.....	first person plural exclusive
1PLINC.....	first person plural inclusive
2SG.....	second person plural
2D.....	second person dual
2PL.....	second person plural
3SG	third person singular
3D.....	third person dual
3PL	third person plural
ACC.....	'accusative' patient marker
AGNT.....	agent marker
AWAY.....	away from the speaker
CAUSE.....	causative prefix
CIA.....	the so-called 'passive' suffix
COMP.....	complementiser
CONT.....	continuative manner particle
CONTR.....	contrastive manner particle
DIST.....	distant from both the speaker and the hearer
DN1.....	downwards towards the speaker

EQ.....equative particle
EXCL.....exclusive manner particle
EXT.....existential case marker
FREELY.....unrestricted manner particle
INST.....instrument marker
INTS.....intensive manner particle
NEAR1.....near the speaker
NEAR2.....near the hearer
PART.....particle
PERS.....personal article
PL.....plural
REASON.....reason
SPEC.....specifying particle
TAM.....tense/aspect/mood marker
TO1.....towards the speaker
TOP.....topicalising particle
UP1.....upwards towards the speaker

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Chapter 1

Introduction

1.1 Introduction

The so-called ‘passive’ construction in New Zealand Māori (henceforth referred to as Māori) has long been considered problematic by scholars and second language learners alike. Most notable has been its inordinately high frequency but there has also always been a sense that if this construction was indeed a passive, it was an atypical one (Kendall, 1815; Lee, 1820; Williams, 1844; Maunsell, 1894; Clark, 1973b; Chung, 1978; Gibson and Starosta, 1990; Bauer et al., 1997; Harlow, 2007).

This thesis aims to address the following questions:

1. Can the anecdotal observation that the ‘passive’ sentence type is strongly favoured in Māori be empirically confirmed? What is the frequency of the suffixed form of the verb (traditionally called the passive form)? More precisely: what percentage of verbs, in positions where both suffixed and un-suffixed forms are permitted to occur, are of the suffixed type?
2. Is there a difference in the degree of preference for the suffixed form between the classes of two-participant verbs known as ‘*canonical*’ and ‘*experiencer*’ verbs?
3. How, if at all, does the so-called passive construction in Māori differ from what is expected of ‘passive constructions’ as suggested by works on the cross linguistic patterns of the

‘passive’?

4. What conclusions about the nature of the ‘passive construction’ in Māori can be drawn from the results of the analysis of the corpus?

Using data from a corpus of nineteenth century text this thesis will investigate 10 ‘*canonical transitive*’ verbs, 4 ‘*di-transitive verbs*’ and 6 ‘*experiencer verbs*’ and find that:

- Canonical transitives and di-transitives have a very strong preference for the so-called ‘passive’ construction.
- A lower preference is found for experiencer verbs.
- For canonical and di-transitive verbs, nearly 90% of so-called ‘active’ clauses occur for reasons of pivot access to the agent noun phrase. That is, the ‘passive’ is used unless the agent noun phrase is required as a pivot.
- Most of the remaining so-called ‘active’ forms show reduced transitivity.

I will begin with some general background information about New Zealand Māori and a discussion of some of the terminology used in this thesis.

1.2 On New Zealand Māori

Māori is the indigenous language of the modern state of New Zealand. It was the only language spoken in New Zealand until the arrival of European settlers in the late 18th century. It remained the lingua franca for some time after the first European contact but from the late 19th century until the late 20th century the language experienced a near extinction level decline. In the late 20th century a concerted language revival effort began and continues to this day. Despite the success of the revival movement, Māori is still an endangered language and we must continue to build up the number of speakers to a self sustainable level. Māori has been recognised as an official language of New Zealand since 1987 (Benton, 1989).

Māori is a member of the East Polynesian subgroup of the Polynesian language family, which is in turn a member of the Oceanic subgroup of the worlds largest language group, Austronesian

(Harlow, 2007, p. 1). Māori is generally considered to have a small (slightly variable subject to scholarly whim) number of mutually intelligible regional dialects. The least controversial distinction is made between the Eastern, Western and Southern dialects (Biggs, 1968).

1.3 Defintion of Key Terms

The following definitions are offered as a quick overview of some key terms. Some of these definitions are controversial and will be discussed more fully in Chapter 2.

1.3.1 Active and Passive Voice

The Passive Voice Cross Linguistically

The prototypical properties of a passive constructions cross-linguistically will be discussed at greater length in Chapter 2. However, in the traditional sense, a passive construction is one where the object of the so-called underlying active clause is promoted to subject of the surface passive clause, and the underlying subject is relegated to an oblique position. English is considered to have a prototypical passive construction. Example (1) below shows a straight forward active sentence while example (2) shows the passive version (or ‘transformation’) of the same sentence.

(1) ‘Jim hit the dog.’

(2) ‘The dog was hit by Jim.’

Passive sentences serve to de-focus the agent and it is more common, cross linguistically for the passive utterance to be agent-less, as in the following English example (Keenan, 1985).

(3) ‘The dog was beaten.’

The ‘Passive’, ‘Active’ and ‘Stative’ in Māori

The Māori forms that have traditionally been analysed as active and passive are exemplified below:

Active / a-construction / pattern I¹

- (4) Ka patu a Hēmi i te kuri.
TAM hit PERS Hēmi ACC the dog
“Hēmi hit the dog.”

Passive / p-construction / pattern II

- (5) Ka patua te kuri e Hēmi.
TAM hit-CIA the dog AGNT Hēmi
“The dog was hit by Hēmi.” or “Hēmi hit the dog.”

I have given two English translations for example (5). This is because, where there is no context, it is not possible to predict whether it is more appropriate to translate this type of construction using the active or passive voice.

There is a third type of verbal sentence in Māori which is often called the stative. This label is controversial (Bauer et al., 1997, p. 490) and many linguists (Bauer et al., 1997; Clark, 1976) prefer the term ‘neuter verbs’ for this class. These sentences utilise a closed class of verbs, partially defined by the fact, that they cannot take a passive suffix. The case structure of this type of sentence is different from both the ‘active’ and the ‘passive’ as shown in (6).

- (6) Ka riro te kai i ngā tamariki.
TAM be-taken the food AGNT the-pl children
‘The food was taken by the children.’ or ‘The children took the food.’

Once again I have offered two English translations, an active and a passive. These types of sentences are also sometimes more naturally expressed in English using the active. However, this effect is less pronounced with stative constructions due to the inherently ‘passive-like’ qualities of many of the verbs.

I will use the labels a-construction p-construction and s-construction for the active, passive and stative constructions respectively. The fact that the letters are reminiscent of the traditional labels for the sentence types serve only as a convenience rather than an endorsement. I may also use the terms ‘pattern I’ and ‘pattern II’ when discussing the former two types of constructions in the context of other Polynesian languages. This labelling system is taken from Clark (1973b).

¹Unless otherwise specified the examples are my own.

1.3.2 Terminology for Labelling the Noun Phrase Constituents of a Clause

In the discussion of ergative languages (or ergative constructions) it is considered problematic to use terms such as *subject* and *object*. For this reason scholars have tended to adopt a neutral labelling system for the noun phrase constituents of clauses. For the purpose of this study I have adopted a labelling methodology reminiscent of Comrie (1978) and Dixon (1994) in that I will use the terms A, P and S. I will expand on this system and label the noun phrase constituents of the three types of sentences as Sa, Aa, Pa, Sp, Ap, Pp, Ss, As, Ps.

The label A is applied to that noun phrase in a clause containing two noun phrases, where the agent would usually be expressed. The label P is applied to that noun phrase in a clause containing two noun phrases, where the patient would usually be expressed. This system of labelling is applied to each of the two noun phrases where two noun phrases are present, even if they are not both obligatory. The label S is applied to the single noun phrase in clauses where there is in fact only one noun phrase present, regardless of whether or not a second noun phrase is permissible. S is not used for the agent noun phrase of a p-construction with no overt P noun phrase because I consider the suffixed form of the verb to indicate the existence of a P constituent even if it is not overtly expressed. The lower case letter that follows the uppercase letters A, P or S represents the sentence type.

In the following examples, the constituent to which the label is applied is shown in bold. Repeated examples are not fully glossed.

(7) ‘**Sa**’

Ka haere mai **ngā tama**.
TAM go TO1 the-PL boy

‘The boys came here.’

(8) ‘**Aa**’

Ka here atu **a Hata** i ngā poaka.
TAM tie AWAY PERS Hata ACC the-PL pig

‘Hata tied up the pigs.’

(9) ‘**Pa**’

Ka here atu a Hata **i ngā poaka.**

(10) ‘**Sp**’

Ka herea atu **ngā poaka.**
TAM tie-CIA AWAY the-PL pig

‘The pigs were tied up.’

(11) ‘**Ap**’

Ka herea atu ngā poaka **e Hata.**
TAM tie-CIA AWAY the-PL pig AGNT HATA

‘Hata tied up the pigs’ or ‘The pigs were tied up by Hata.’

(12) ‘**Pp**’

Ka herea atu **ngā poaka** e Hata.

1.3.3 Canonical and Experiencer Verbs in Māori

Māori has been identified as having two main classes of transitive verbs within the set of verbs that are permitted to take the ‘passive’ suffix. Bauer (1997) has used the labels *canonical transitive* and *experiencer*.² Semantically, canonical transitives (as one might expect from the label) are

²Other authors (Chung, 1978; Bauer, 1982) have used the term *middle verbs* to describe the second category.

typically verbs which describe actions of notionally high transitivity. The two participants in a clause involving a canonical transitive verb are typically an agent and a patient. The case marking for a-constructions with canonical transitives is shown in (13) with the agent \emptyset marked and the patient marked with *i*.

- (13) Ka here atu \emptyset a Tame i ngā kurī.
 TAM tie AWAY \emptyset PERS Tame ACC the-PL dog
 ‘Tame tied up the dogs.’

Experiencer verbs typically describe ‘events’ where there is an experiencer rather than an agent i.e. they are ‘verbs of experience’. Clear members of this group in Māori include *mōhio* -‘to know’, *hiahia* -‘want, desire’, *kite* -‘to see’. The case marking for the a-constructions with experiencer verbs usually differs slightly from that of the canonical transitives. In a-constructions containing experiencer verbs, the A noun phrase (which has the thematic role of experiencer) is \emptyset marked but the P noun phrase is usually marked with *ki*. There are exceptions to this however and it is acknowledged (Bauer, 1982) that there is some difficulty in confidently defining the membership of the experiencer group (see section 4.5). Example (14) shows a typical a-construction with an experiencer verb, *mōhio*.

- (14) E mōhio ana \emptyset ahau ki ngā mema o te taha tautohe me te taha
 TAM know TAM \emptyset 1SG ACC the-PL member of the side oppose and the side
 Kāwanatanga.
 government
 ‘I know the members of the opposition and the members of the government.’ (LG)

Bauer (1982, p. 308) notes that these verbs pattern differently from *canonical transitives* with respect to relative clause formation. It will be made clear in this thesis that they also pattern differently with respect to the preference for the p-construction.

1.3.4 Transitive

Traditionally, the term ‘transitive’ described a verb that *required* two arguments, a subject and a direct object. So the English verb ‘to hit’ is transitive as one cannot say:

(15) *He hit.

but rather must say:

(16) He hit something.

Whereas the English verb 'to sleep' is intransitive as one cannot say:

(17) *He sleeps the baby.

Which would be corrected to:

(18) He put the baby to sleep.

However,

(19) He is sleeping.

is perfectly acceptable.

The notion of transitivity was broadened significantly in the wake of Hopper and Thompson's (1980) seminal work *Transitivity in Grammar and Discourse*. Here they proposed that transitivity was explicitly a property of clauses rather than of verbs and that it was not a binary distinction between transitive and intransitive but rather a continuum.

Di-Transitive

This term is used in this thesis to describe verbs that *may* have three core participants. Such participants would usually have the roles of agent, patient (or theme) and recipient (or goal). This term does not signify that such verbs obligatorily take three arguments.

1.3.5 Argument

Unless otherwise specified, this term is used in this thesis to refer to any participants in the action, event or state. It does not imply that the phrase in question is obligatory, nor does it imply anything about the generative structure of the sentence.

1.3.6 Perfective Aspect

The notion of perfective aspect is important to this study because perfectiveness has been associated with transitivity, passives and ergativity (Keenan, 1985; Bauer et al., 1997). Aspect denotes a temporal perspective on an action with respect to the state of completeness of that action. A perfective action is one which has been completed or can be viewed from its endpoint. This is different from a *perfect* action which has been completed and has some specific relevance to the present. The terms telic and atelic are used to distinguish between an action that can be viewed from its endpoint versus one which cannot. These terms encompass some of the more precise aspectual terms.

1.3.7 Agent and Patient

These terms derive from the notion of *thematic relations* also called *semantic relations* (Comrie, 1989). Agent refers to the entity that performs the action while patient refers to the entity that has the action performed on it. Take the following two English examples:

(20) ‘Jim hit the dog.’

(21) ‘The dog was hit by Jim.’

In (20) *Jim* is the agent and *the dog* is the patient. In the corresponding passive example (21) *Jim* is still the agent and *the dog* is still the patient despite the fact that in terms of grammatical relations, the statuses of the noun phrases have been inverted.

1.3.8 Ergative and Accusative

In the most prototypical and general sense, the term ‘ergative’ refers to a case marking system which can be contrasted with the ‘accusative’ case marking system. In an ergative system, the A

noun phrase is marked by the ergative case and the P noun phrase is marked by the absolutive case, whilst the S noun phrase is also marked by the absolutive case, thereby grouping S and P together. This differs from an ‘accusative’ system (like that of English) where the A and S noun phrases take the same (nominative) case while the P noun phrase takes its own (accusative). A pattern is considered to be ergative if S and P pattern together in opposition to A and this pattern can apply to factors other than case morphology such as noun incorporation, verb-agreement and co-ordination.

Languages are generally deemed to be ergative if the unmarked sentence type patterns ergatively. Many languages have some ergative patterns and some accusative patterns, these languages are sometimes said to show ‘split ergativity’. Figure 1.1 shows the nominative-accusative and the ergative-absolutive patterns.

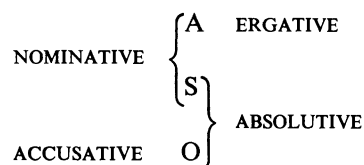


Figure 1.1: The Nominative-Accusative Pattern and the Ergative-Absolutive Pattern (Dixon, 1979, p. 61)

1.4 Overview

Following this introduction, Chapter 2 is a review of the literature that this study draws from. Chapter 3 deals with the research methodology of this project and covers the construction of the corpus and then the organisation of the data in order to generate the frequency data. Chapter 4 presents the empirical results of the investigation and Chapter 5 analyses these results with reference to the literature and research question 4. Chapter 6 offers some conclusions.

Chapter 2

Literature Review

2.1 Introduction

This chapter surveys some of the literature relating to: passive constructions cross-linguistically (section 2.2), transitivity (section 2.3), ergativity (section 2.4), the p-construction in Māori (section 2.5), ergativity in Polynesian languages (section 2.6) and relative clauses in Māori (section 2.8).

2.2 Passive Constructions as a Cross-linguistic Phenomenon

There is a great deal of literature in linguistics on the phenomenon of voice. The passive construction was significant in the development of Chomsky's *Transformational Grammar* (the *Principles and Parameters* theory represents the current position of the Chomskian school) and in the related theory of *Relational Grammar* but this study does not draw from those theories. In the realm of the *Functional-Typological* study of linguistics there is also a long history of discussion of the passive construction (Shibatani, 1988, p. 1). There is a reasonable amount of agreement amongst linguists, as to the general properties of the passive construction as exemplified below:

- a. Passives are agent-defocusing; this entails Agent suppression and (Direct) Object-orientation and reduction by one valence place: e.g., detransitivization;

- b. Passivization entails predicative stativization (under a perfective-resultative perspective and marked verbal morphology);
- c. Passivization entails subjectivization of a non-Agent (Patient/Recipient, an original DO/IO);
- d. Passivization entails topicalization of a non-Agent (e.g., for more adequate context fit with respect to thema continuation);
- e. Passivization presupposes the affectedness of the surface subject (implied by Agent loss and Patient promotion);
- f. Passivization may be sensitive to perfect aspect (e.g., where the object referent in the passive accusative allows for no reading other than result, while the finite verb *furon* “they become” must still have full lexical verb status, i.e., it is not an auxiliary...);
- g. Passives never go without special morphological marking; either from a separate passive or medial paradigm by Aux+verbal Anterior (participial form), or by virtue of reflexive suffixation - in certain languages even as an unbound reflexive morpheme.
- h. Passives are detransitivizers both in terms of designated theta roles and as syntactic valence determinants (Abraham and Leisiö, 2006, p. 2).

Or, similarly but more succinctly from Estival and Myhill (1988):

- a. The verbal or deverbal form must be intransitive, and is not necessarily derived from a transitive verb.
- b. The argument having the thematic role usually associated with O, i.e. patient or theme, or with either of the objects of a ditransitive verb i.e. patient or beneficiary, bears the same marking as an S.
- c. The argument having the thematic role usually associated with A, i.e. agent or experiencer, if present, is given oblique marking (p. 443).

It should be made clear, that the sense of transitivity being used in these examples is the traditional sense. That is, transitivity is considered to be property of a verb rather than a

clause.

Shibatani (1985) has proposed a prototype analysis of the passive construction in which he argues that the primary motivation of the passive construction is to de-focus the agent. He considers the agent-less form of the passive to be the prototypical or unmarked form and says that where the agent is expressed, it indicates a weaker de-focussing. Keenan (1985, p. 249) has proposed a number of what he calls ‘general properties’ of passive constructions, cross linguistically. Once again he emphasises the agent-defocussing role of passives.

Keenan also discusses the “presentation of agent phrases” (1985, p. 261) and his findings indicate that Māori may be slightly unusual in this regard. Keenan states that agent phrases in passives usually take the form of an oblique phrase that occurs elsewhere, in non-passive agent phrases “with a more than chance frequency” (p. 262). He lists three examples of the types of phrases that passive agent phrases often derive from: instrument phrases, locative phrases and genitive phrases. In Māori, the agent phrase is introduced by the particle *e* which is not ever used for locative or genitive phrases. Nor is it usually used for instrument phrases although some speakers will accept sentences such as the following ‘stative’ or ‘neuter verb’ construction.

- (22) I mahue te tane e te pahi.
TAM leave-behind the man AGNT the bus
‘The man was left behind by the bus’

However, it is possible, and more usual, in these type of examples, to analyse the particle *e* as agentive rather than instrumental. This idea is reiterated by Estival and Myhill (1988):

in all ergative systems the ergative case-marker on A, like the adposition marking the passive agent in an accusative system, is homophonous with, or can be shown to be diachronically derived from, an independently existing oblique NP marker, e.g. instrumental, genative or dative (p. 443).

Keenan does not claim that these are universal features of the passive, cross-linguistically, but does suggest that, in this regard, the agent phrase of the Māori passive does not pattern with the majority of the world’s languages. Keenan draws the conclusion from his survey that the agent phrase is not a core element of the passive construction. He notes that many languages do not permit agent phrases and that all languages permit agent-less phrases in passive constructions.

To briefly summarise the general consensus with regard to the properties of the passive:

1. The passive construction serves to de-emphasise the agent, either by not realising the agent or by relegating it to a position of reduced prominence. Agent-less passives are the unmarked or preferred form for passive constructions (Keenan, 1985, p. 4). Shibatani has gone so far as to say that a preference for agents to be expressed, in a notionally passive construction, *entails* that that construction is not, in fact, a passive (1985, p. 835).
2. Passives are intransitive, in the traditional sense of there being only one core argument. The agent (where agents are permitted) is expressed, optionally, as an oblique noun phrase (Abraham and Leisiö, 2006, p. 2).
3. There is often a relationship between the passive construction in a language and one or more of the following other constructions in that language: the reflexives, the reciprocal, the spontaneous, the potential, the honorific, and the plural formation (Shibatani, 1985). However, none of these apply to Māori.
4. The way the agent phrase is introduced usually takes the form of an oblique phrase that is found elsewhere in the language (Keenan, 1985). Once again this does not apply to Māori, with the possible exception of some ‘stative’ sentences where the agent is introduced by *e*.

2.3 Transitivity as a Continuum

As was mentioned in section 1.3.4 the concept of transitivity was expanded radically by the work of Hopper and Thompson (1980). They assert that “transitivity is a central property of language use” and identify three important innovations in the conceptualisation of transitivity (p. 252).

1. Transitivity is a property of a clause rather than of a verb.
2. Clauses exhibit degrees of transitivity on a continuum from high to low rather than a binary distinction between ‘transitive’ and ‘in transitive’.
3. “The defining properties of Transitivity are discourse-determined” (Hopper and Thompson, 1980, p. 251).

Hopper and Thompson (1980, p. 284) found a very high correlation between the discourse parameter of ‘grounding’ and transitivity. They found that clauses that are fore-grounded are significantly more likely to be high in transitivity than clauses that are backgrounded. Figure 2.1 lists the factors which Hopper and Thompson found to be consistent (cross linguistically) determiners of the degree of transitivity of a clause. “The more features a clause has in in the ‘high’ column in 1A-J, the more transitive it is” (Hopper and Thompson, 1980, p. 253).

	HIGH	LOW
(1) A. PARTICIPANTS	2 or more participants, A and O.¹	1 participant
B. KINESIS	action	non-action
C. ASPECT	telic	atelic
D. PUNCTUALITY	punctual	non-punctual
E. VOLITIONALITY	volitional	non-volitional
F. AFFIRMATION	affirmative	negative
G. MODE	realis	irrealis
H. AGENCY	A high in potency	A low in potency
I. AFFECTEDNESS OF O	O totally affected	O not affected
J. INDIVIDUATION OF O	O highly individuated	O non-individuated

Figure 2.1: Table of Factors of Transitivity (Hopper and Thompson, 1980, p. 252)

Tsunoda (1985) refined this notion of ‘transitivity as a continuum’ further by saying that the 10 parameters of transitivity identified by Hopper and Thompson are not equally important in triggering specific transitivity marking in languages. He considers that the degree of affectedness of the patient noun phrase to be the most crucial. Tsunoda identifies the following types of relationship of the P noun phrase to the verb: direct effect on patient, perception, pursuit, knowledge, feeling, relationship and ability (p. 388). Scenarios at the left end of the list are encoded as the most transitive and those at the right end as the least. The more effected the P noun phrase is by the verb the more transitive the clause.

Transitivity is critical to the discussion of the p-construction in Māori because the apparent high transitivity of the p-construction is the issue that most makes this construction atypical of passive constructions cross linguistically.

2.4 Ergativity

The notion of ergative languages or perhaps more accurately ergative constructions within languages has been discussed at great length (Comrie, 1978; Dixon, 1994; Plank, 1979). A general definition of ergativity is provided in section 1.3.8.

There are two main ways in which ergativity may be exhibited in a language. The most common is morphological. The most well documented manifestations of morphological ergativity are case marking and verb agreement (Comrie, 1978). In an ergative case marking system the S and P stand in the absolutive case (which is usually \emptyset marked) while the A stands in the ergative case (which is usually overtly marked). Loosely, where verb agreement is ergative, the verb will agree with the S or P but not with A.

A language may also demonstrate syntactic ergativity. Processes such as , noun incorporation, co-ordination and relativisation may treat the S and the P in the same way, as distinct from the way they treat A.

Syntactic ergativity is quite rare and “The majority of languages that are morphologically ergative are not syntactically ergative; in the majority of ergative languages ergativity seems to be a relatively superficial phenomenon” (Comrie, 1978, p. 346). Estival and Myhill (1988, p. 467) suggest that this is because syntactic or ‘deep’ ergativity is inherently unstable due to the tension between the subject properties of A (semantic and pragmatic) and those of P (morphological and syntactic).

2.4.1 Split Ergativity

Some scholars (Dixon, 1979; Comrie, 1978) believe that all languages that show ergativity are to some extent, ‘split ergative’. That is to say, they have both ergative and accusative constructions. Generally, a language is said to show split ergativity if it has ergative and accusative constructions that are both reasonably productive.

Dixon (1979, p. 71) identifies three grounds for determining the choice between the ergative and the accusative construction in split systems. They are: the semantics of the verb, the semantics of the noun phrases and the tense or aspect of the phrase. All three of these motivations

can be said to relate to the transitivity of the clause in question. I will briefly describe prototypical examples of each type of split condition but refer to Dixon (1979, pp. 79-98) for a full discussion.

In languages where the semantics of the verb condition the split, the A and the P of two argument clauses are consistently marked while the S of single argument clauses may be marked like the A or the P depending on the semantics of the ‘intransitive’ verb. Broadly, single argument (‘intransitive’) verbs which subcategorise for an agent or controller will be marked as A while verbs where the S referent has less or no control will mark the S like the P.

The animacy or relative animacy of the constituent noun phrases is the important characteristic in split systems that are based on the semantics of the noun phrases. Certain types of referents, namely, those further to the left of the animacy hierarchy, are more likely to be agents. Sentences with agents that are higher on the animacy hierarchy are more likely to mark the noun phrases with an accusative pattern meaning that the A will be the least marked constituent. Whereas sentences with an A that is lower on the animacy hierarchy will be more likely to use the ergative pattern thereby explicitly marking the more unexpected A as such. Figure 2.2 shows the animacy hierarchy.

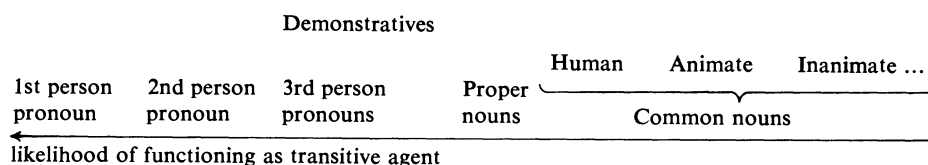


Figure 2.2: The Animacy Hierarchy and Agent Propensity (Dixon, 1979, p. 85)

Under tense/aspect determined conditions, ergative constructions tend to be used for past or perfective tense/aspect and nominative-accusative constructions elsewhere. “There is generally positive marking for A function in past/ perfect, and for P function in non-past/imperfect” (Dixon, 1979, p. 95).

According to Hopper and Thompson, the ergative construction is used for clauses with higher degrees of transitivity based on the correspondences in table 2.1. An alternative ‘non ergative’ construction, such the ‘antipassive’ (in a highly ergative languages with no accusative construction) or the ‘accusative’ (in split systems), is used for clauses with lower degrees on transitivity.

This characterisation does not fit neatly with the way that animacy based splits usually work.

Table 2.1: Typical Transitivity Features of Ergative vs ‘Antipassive’ Constructions (Hopper and Thompson, 1980, p. 268)

Ergative	Antipassive/ Accusative
Verb codes two participants	Verbs codes only one participant
Perfective Aspect	Imperfective Aspect
Total involvement of P	Partitive P
Definite P	Indefinite P
Kinetic/volitional V	Stative/involuntary V
Active participation of A	Passive participation of A

2.4.2 Origins of Ergativity

Functional Basis

There has been a lot of investigation and speculation about the reasons for the existence of ergative systems as well as the diachronic development of ergative systems. There is a fundamental flaw in this approach that has been recognised by scholars.

There was thus a presupposition that ergativity is somehow aberrant and its deviation from the norm has to be explained as the result of some kind of historical development from a more normal language type (Comrie, 1978, p. 368).

The existence of ergative case marking systems can be explained synchronically. In two-argument sentences there is a need to distinguish between the A and the P noun phrases. There is no need to distinguish between the A and the S or between the P and the S as they do not occur together. Therefore its is most efficient to use one marker (often \emptyset) for S and one (usually morphologically marked) for either A or P. Where the A is overtly marked the P is in the same case as S thereby producing an ergative pattern. If the P is overtly marked, the A will be in the same case as S and an accusative pattern results. This provides a functional motivation for both the ergative-absolutive and the nominative-accusative case marking systems.

Discourse Factors in Ergativity

Du Bois (1987) argues that there is a discourse basis for the existence of ergative patterning. He proposes that the ergative pattern evolves from the fact that, in discourse, ‘new’ information is strongly dis-preferred in the ‘A’ position. That is, ‘new’ information almost always occurs in either the ‘S’ or the ‘P’ position. The grouping of the ‘S’ and ‘P’ arguments is of course an ergative pattern. Considering that Bauer (1997) has suggested that there may be discourse factors behind the use of the passive in Māori, this is a potentially interesting area to investigate with regard to the possible analysis of the passive construction in Māori as ergative.

The Relationship Between Ergative and Passive Constructions

It has been observed that the passive construction of accusative languages has much in common with the ergative construction. There are a number of scholars who propose that one way for the ergative construction to develop is via passive reanalysis.

Figure 2.3 outlines a version of that process. Roughly based on the analysis of Estival and Myhill (1988, p. 466) the stages are:

1. An accusative system with a de-verbal passive as an alternative construction. The A has the subject properties and is unmarked.
2. The passive construction becomes verbal and is used for fore-grounding. The accusative construction is still used for fore-grounding as well. The A is the subject of the accusative construction while the P is the subject of the ergative construction.
3. The ergative construction is the unmarked transitive construction. The alternative construction is de-verballed or pseudo transitive. The subject status of A and P is unclear. The system is ‘deep ergative’.
4. The A has the strongest subject properties. The ergative construction is still the main transitive construction but it may be becoming more marked. An alternative construction exists that is more verbal than it was at stage 3. The system is ‘surface ergative’.

Stage	Basic Transitive Construction	Alternative Transitive Construction	Subject Properties	Stage
1	<u>Accusative</u>	<u>Passive / De-verbal</u>	∅ A	5
2	<u>Ergative/Accusative</u>	<u>Passive / De-verbal</u>	+A / ∅ P	4
3	<u>Ergative (unmarked)</u>	<u>Anti-passive</u>	∅ P / + A	3
4	<u>Ergative (more marked)</u>	<u>Accusative</u>	+ A	2
5	<u>Accusative</u>	<u>Passive</u>	∅ A	1

Figure 2.3: Ergative and Passive Constructions

5. An accusative system with a de-verbal passive as an alternative construction. The A has the subject properties and is unmarked.

I have incorporated the possibility of the process also occurring in reverse in figure 2.3. Comrie (1978) asserts that this process is bi-directional but Estival and Myhill (1988) claim that the process can only proceed in one direction (from passive to ergative). They do say however that “Once a language has gotten to the final stage in the development from deverbal to verbal outlined above, there is no reason why it cannot go through the entire process again” (p. 468).

It is acknowledged (Comrie, 1988; Clark, 1973b) that there can be problems distinguishing between ergative and passive constructions. Clark (1973b, p. 597) draws attention to this issue and says somewhat facetiously “it will be clear that by the definitions given, a passive construction is an ergative construction; and by the same token, an ergative construction is a passive construction.” Comrie (1988) has posited three criteria by which to test the relative ‘ergativeness’ or ‘passiveness’ of a construction in a language. They are: the syntax of the agent phrase, the integration of the agent phrase into the clause system and markedness. Estival and Myhill (1988) add the criteria that in an ergative construction the A and P noun phrase must both be obligatory.

2.5 Perspectives on the ‘Passive’ Construction in Māori

The so-called ‘passive’ construction in Māori has been noted for its oddity since the language was first described in the early nineteenth century (Kendall, 1815; Lee, 1820; Maunsell, 1894; Williams, 1844). Of most interest to these early scholars was the fact that the so called ‘passive’ form was used far more frequently and in more contexts than the English equivalent. These early grammars of Māori were heavily influenced by traditional grammars of European languages, in particular, Latin, and are often referred to as Latinate grammars (Mutu, 1989; Ota, 2000). It is possible that this Euro-centric perspective was a factor in the hasty adoption of the term passive and the analysis of the passive construction in Māori as analogous with the English system of passive and active voice.

Examples of the so called ‘active’ and ‘passive’ constructions are repeated below for convenience.

‘Active’ or a-construction

- (23) Ka patu a Hēmi i te kurī
TAM hit PERS Hēmi ACC the dog
‘Hēmi hit the dog.’

‘Passive’ or p-construction

- (24) Ka patu-a te kurī e Hēmi
TAM hit-CIA the dog AGNT Hēmi
‘The dog was hit by Hēmi.’ or ‘Hēmi hit the dog.’

There are generally two views on the nature of the p-construction. The first is that it is a passive that shows some unusual properties. The second is that it is in fact the basic transitive form. That the p-construction is indeed a passive construction, if perhaps not a prototypical one, is the position taken by the majority of scholars and is the position supported by all the current pedagogical grammars (Bauer et al., 1997; Harlow, 1993; Biggs, 1998; Ota, 2000; Chung, 1977). Most grammars take the approach that the passive sentence is formed via a transformation from the ‘active’ in much the same way as it is in English, i.e. the direct object of the active sentence is ‘promoted’ to the subject position in the passive sentence whilst the subject of the active sentence is moved to an oblique position in the passive. The patient phrase thus acquires grammatical ‘subject’ properties.

The strongest alternative analysis of the p-construction in Māori is that it is in fact, an ergative construction. This analysis is supported by some scholars (Sinclair, 1976; Pucilowski, 2008; Gibson and Starosta, 1990) and will be discussed in more detail in section 2.6.

There are three main ways in which the p-construction in Māori, differs from what is expected of passive constructions cross-linguistically. The first is the fact (to be empirically confirmed in this thesis) that the p-construction is used more frequently than would be expected of a passive construction and is actually used more frequently than the a-construction in Māori. The second is the apparent high transitivity of p-construction sentences in Māori. The third issue is the nature of the agent marking preposition as raised in section 2.2. The preposition *e* which introduces the agent noun phrase in the p-construction is not found as a location, genitive or instrumental maker. This alone is not necessarily problematic for the analysis of the p-construction as a passive (Keenan, 1985, p. 262). However, it is interesting to note that the preposition *e* is

the ergative or agent marker in the ergative constructions of the Tongic and Samoic languages (Clark, 1973b).

Chung (1978, p. 71) argues that the passive in Māori is simply a passive, very much like the English passive. She considers the issue of the high frequency of the use of the passive to be unimportant on the grounds that the “preference for the passive is late: it takes effect only after conditions on other rules (i.e. Equi, Relativisation and Clefting) have been satisfied.” She considers that the accusative patterning in Māori of syntactic processes such as control, binding and raising, indicates that the a-construction is the basic transitive construction.

Winifred Bauer, (1997) in her very comprehensive *Reference Grammar of Māori* discusses the passive in some depth and states, “there is general agreement that Māori has a passive” (p. 477). She also acknowledges that the passive displays some qualities that make it quite markedly different from a more prototypical passive construction. In particular Bauer mentions that unlike the English passive, the p-construction in Māori is not used to express stativity (1997, p. 483). Bauer also found that a-construction sentences, in the past tense, are often rejected by native speakers, which would seem to support Clark’s (1973b) theory that the passive is used to mark the perfective aspect. Bauer discusses this as well as Chung’s (1978) theory that it is used for affected direct objects. She finds that these two conditions (which obviously have some degree of crossover) both show strong tendencies to be expressed by a p-construction but that it is not compulsory to do so, nor are all p-constructions examples of affected direct objects or perfective aspect. She emphasises the role of discourse factors in the choice between the a-construction and the p-construction but does not elaborate further on this idea. It is noteworthy that all three of these posited conditions for the selection of the p-construction are features of high transitivity according to the Hopper and Thompson (1980) paradigm. Under their analysis, perfective aspect, affected P noun phrases and fore-grounding in discourse are all features of high transitivity. The fact that the p-construction is used for dynamic rather than stative actions is also an example of a high transitivity feature, that of kinesis.

With regard to the issue of transitivity, Bauer explicitly says “Passive sentences in their core form involve two participants engaged in a **transitive** action. Passive sentences can be thought of as an alternative way of conveying the same basic message as a transitive sentence” (1997, p.

42)(emphasis added). This assertion conflicts with the the requirement for a passive construction to be intransitive or ‘deverbal’ as noted above.

A construction in Māori which seems to support the notion that suffixed form of the verb indicates transitivity, is the transitive imperative.

(25) Inu-mia te wai
drink-CIA the water
‘Drink the water!’

(26) Inu-mia!
drink-CIA
‘Drink it!’

(27) E inu!
TAM drink
‘Drink!’

As I have noted in chapter 1, transitive imperatives must use the suffixed form of the verb in Māori (as in (25) and 26)) and intransitive imperatives must not (as in (27)). Furthermore, where the imperative has no overtly expressed object but the suffixed form is used, an unspecified object is implied (as in (26)). This adds further weight to the idea that the suffixed form of the verb indicates a high degree of transitivity. Clark (1973b) considers that the so-called ‘passive suffix’ in Māori is related to a a transitive marker that he reconstructs for Proto-Eastern Oceanic. Ota (2000) also supports this analysis.

Bauer mentions the wide variety of forms of the passive suffix as being a matter of interest. This issue is not specifically relevant to this study but it has been extensively studied (de Lacy, 2002; Hale, 1991; Sanders, 1991; Ota, 2000).

2.6 Ergativity and the Passive in the Polynesian Language Family Including Māori

The notion of ergativity was first introduced into the discussion of Polynesian languages by Milner (1962) when he proposed that the structure in Samoan that shows similarities to the passive in Māori is in fact an ergative construction. Most of the Tongic¹ and Samoan Outlier languages are now considered to be ergative while all the Eastern Polynesian languages, with the exception Māori, are considered to be accusative. Māori is considered problematic.

This issue of ergativity in the Polynesian language family is controversial. It generated much debate during the 1970s and this discussion still continues today. There are two main issues of contention relevant to this thesis.

The first disagreement is over the question of the reconstruction of the Proto-Polynesian case system. Hohepa (1969) proposed the hypothesis that Proto-Polynesian was an accusative language and that signs of ergativity in many of the daughter languages were evidence of a diachronic ‘drift’ (since Proto-Polynesian) within the Polynesian language family from an accusative system to an ergative system. He based much of his argument on the Māori p-construction and the notion that the unusually high frequency of the construction was evidence of a passive to ergative re-analysis in progress. This interpretation was adopted by Comrie (1978, p. 372) in his discussion of the relationship between the ergative and the passive. Chung (1978) also favours this theory. Clark (1976) however, proposed that Proto-Polynesian had an ergative system and that the prevalence of the passive in Māori was a result of the historical ergative construction continuing to be the favoured choice for highly transitive constructions.² Clark bases his analysis largely on the distribution of the p-construction type of construction, which he calls ‘pattern II’, in the daughter languages of Proto Polynesian as well as the history of the suffix as a marker of transitivity. Other scholars who take Clark’s position include Milner (1976) Ota (2000) and Pucilowski (2008). More recently Ball (2007) has supported Chung’s (1978) hypothesis.

The second point of disagreement is over the following question. *Is Māori an accusative language?* This was the title of a paper by Sinclair (1976) who claimed that Māori should be

¹The sub-grouping system used here is taken from Harlow (2007, p. 14).

²Transitive in the sense of Hopper and Thompson (1980).

treated as an ergative language, with the p-construction as the basic transitive construction exhibiting ergative case marking. His argument was promptly rebutted by Chung (1977) who cited the syntactic behaviour of the ‘Aa’ noun phrase as evidence of the accusative orientation of Māori (c.f. section 2.5). Gibson and Starosta (1990) have subsequently argued again, that Māori is actually ergative. Under their analysis, the p-construction is an ergative construction and the a-construction is a de-transitivised anti-passive construction.

A number of linguists take the approach that Māori is basically accusative but it has traces of ergativity in some areas of its syntax (Bauer et al., 1997; Clark, 1976). In a recent work, drawing on the theoretical framework of Manning’s (1996) ‘Inverse Grammatical Relations Hypothesis’, Pucilowski (2008) has proposed that Māori shows split ergativity with transitivity being the characteristic that determines the split.

To summarise: those scholars who consider the p-construction to be an ergative construction tend to place more importance on the frequency and case marking of the construction, whereas those scholars who consider the a-construction to be the basic transitive construction place more weight on the manner in which syntactic processes are applied to the ‘Aa’ noun phrase.

2.7 Ergative Traces in Māori other than the P-construction

Regardless of which particular position ones takes on either the ergativity of Māori or the ergativity of Proto-Polynesian, there are some features of Māori that are clearly reminiscent of ergative patterns. There are a number of constructions other than the p-construction, which Bauer (1997, p. 536) describes as showing ‘ergative traces’. What these constructions have in common is that the P noun phrase is \emptyset marked and the A noun phrase is overtly marked. In many cases the A noun phrase is preceded by *e* just as it is in the p-construction. However none of the other constructions have the suffix on the verb.³

Harlow (2007, p. 27) has suggested two further constructions that show ergative patterning in Māori. In clauses with nominalised predicates, the ‘subject’ noun phrase is marked with a possessive particle. If that noun phrase is the A noun phrase, it is marked with the possessive

³This is changing in one construction, the weak imperative with ‘me’, where the suffix is sometimes present in modern Māori.

particle ‘a’. All other noun phrases (P and S) are marked with the possessive particle ‘o’. Secondly, the question ‘*ko wai e ...?/Who will...*’ has an S noun phrase as its referent if the verb is intransitive but if the verb is transitive the referent of the question will be the P noun phrase.

I have noted that the so called indefinite article *he*, is not permitted in the P or A position of a-constructions. It is however permitted in the Sa position. It is also permitted in the P position of the p-construction (Pp) as well as the actor emphatic, stative and pseudo passive (or ‘he mea’ cleft). These are all sentence types that are considered to show traces of ergativity. The distribution of *he*, is an example of an ergative pattern in itself. S patterns with P. A noun phrases in p-constructions (Ap), ‘actor emphatic’ and ‘stative’ constructions are not permitted to be marked with *he* (Chung et al., 1995; Polinsky, 1992).

2.8 Relative Clauses in Māori

The way relative clauses are formed in Māori is interesting and relevant to the consideration of the nature the p-construction. The most thorough work on this subject is Bauer’s (1982) *Relativization in Māori* which investigates relative clause formation with specific reference to the *Noun Phrase Accessibility Hierarchy* as proposed by Comrie and Keenan (1977).

The Accessibility Hierarchy (AH), $SU \geq DO \geq IO \geq OBL \geq GEN \geq OCOM$ (where SU= subject, DO = direct object, IO = indirect object, OBL = oblique case, GEN = genitive, OCOMP = object of comparison) expresses the relative accessibility to relativization (sic) of NP positions in simplex main clauses (Bauer, 1982, p. 306).

Bauer systematically provides examples of how each element on the Noun Phrase Accessibility Hierarchy is relativised on, in Māori. In her description she treats the a-construction as the unmarked form and uses the traditional analysis of Māori with respect to grammatical relations. That is, “SU⁴ is \emptyset marked, and the DO⁵ is marked primarily by the preposition *i*” (Bauer, 1982, p. 306). The most interesting matter to arise from this investigation is the fact that *if* you accept the traditional grammatical analysis for Māori, then relativisation in Māori contravenes

⁴Subject

⁵Direct Object

the second ‘Hierarchy Constraint’. “Any RC⁶-forming strategy must apply to a continuous segment of the AH” (Bauer, 1982, p. 306).

The ‘direct strategy’,⁷ which is the unmarked juxtaposition of the relative clause after the head of the main clause, is available to ‘subjects’ and ‘genitives’ but is not always available to ‘direct objects’, ‘indirect objects’ or ‘oblique objects’. Thus it does not apply to a continuous segment of the Accessibility Hierarchy. An example of relative clause using the \emptyset strategy to relativise on the Aa noun phrase is shown in (28), along with its underlying sentences in (29) and (30).

(28) Kua mate te iwi i hanga i tēnei pā.
 TAM die the people TAM build ACC this village
 ‘The people who built this village have died.’

(29) Kua mate **te iwi**.
 TAM die the people
 ‘The people have died.’

(30) I hanga **te iwi** i te pā.
 TAM build the people ACC the village
 ‘The people built the village.’

The problem arises from the strategies available for relativising on the ‘Pa’ noun phrase which is traditionally analysed as the direct object. Bauer finds that the direct strategy may be used to relativise on the ‘Pa’ of experiencer verbs but not the ‘Pa’ of canonical transitives as in (31), (32) and (33) with the experiencer verb *mōhio* and (34), (35) and (36) with the canonical transitive *here*.⁸ A relative clause on a genitive (possessive) constituent that uses the direct strategy is shown in (37). In all the examples the noun phrase that is being relativised on is marked in bold in the underlying sentences. Where I have used Bauer’s examples the glosses have been adjusted to conform with the rest of this document.

⁶Relative clause.

⁷Bauer calls this strategy the ‘subject strategy’ but I use the term ‘direct strategy’ or \emptyset strategy to avoid the terms subject and object.

⁸In the light of new evidence from the DEWMC, an adjustment to this restriction needs to be made and this is discussed in Chapter 4.

- (31) I tūtaki a ia ki te tamaiti i mōhio a Rewi.
 TAM meet PERS 3SG ACC the child TAM know PERS Rewi
 ‘He met the child that Rewi knew.’
- (32) I tūtaki a ia **ki te tamaiti**.
 TAM meet PERS 3SG ACC the child
 ‘He met the child.’
- (33) I mōhio a Rewi **ki te tamaiti**.
 TAM know PERS Rewi ACC the child
 ‘Rewi knew the child.’ (Bauer, 1982, p. 311)
- (34) *I hoko mai ia i te whare i hanga a Hata.
 TAM buy TO1 3SG ACC the house TAM build PERS HATA
 ‘She bought the house that Hata built.’
- (35) I hoko ia **i te whare**.
 TAM buy 3SG ACC the house
 ‘She bought the house.’
- (36) I hanga a Hata **i te whare**.
 TAM build PERS Hata ACC the house
 ‘Hata built the house.’ (Bauer, 1982, p. 310)
- (37) He aha te ingoa o te wāhi e waru maero te tawhiti atu i Te
 EXT what the name of the place TAM eight mile the distance AWAY LOC Te
 Araroa?
 Araroa
 ‘What is the name of the place whose distance away from Te Araroa is eight miles?’
- (38) He aha te ingoa o te wāhi?
 EXT what the name of the place
 ‘What is the name of the place?’

- (39) E waru maero **te tawhiti atu o te wāhi** i Te Araroa.
 TAM eight mile the distance AWAY of the place LOC Te Araroa
 ‘The distance away from Te Araroa of the place is eight miles.’ (Bauer, 1982, p. 328)

In order to relativise on the ‘Pa’ noun phrase of example (34) the p-construction would have to be used as in (40). Alternatively, but less frequently, two other strategies could be used. The first is called the ‘actor emphatic’ strategy and is shown in (41). The second is called the ‘possessive relative’ and is shown in (42).

- (40) I hoko mai ia i te whare i hangā e Hata
 TAM buy TO1 3SG ACC the house TAM build-CIA AGNT HATA
 ‘She bought the house that Hata built.’

- (41) I hoko mai ia i te whare nā Hata i hanga.
 TAM buy TO1 3SG ACC the house of HATA TAM build
 ‘She bought the house that Hata built.’

- (42) I hoko mai ia tā Hata whare i hanga ai.
 TAM buy TO1 3SG of Hata house TAM build PART
 ‘She bought the house that Hata built.’

So it can be seen that to relativise on the ‘Pa’ noun phrase of a canonical transitive verb is more complicated than it should be if the ‘Pa’ noun phrase was a direct object. Bauer states that: “if the grammatical relation of an NP is determined by the pattern it follows with respect to relativisation and other syntactic processes, then grammatical relations cannot be primitives in the theory” (1982, p. 329). I would suggest that the analysis of the ‘Pa’ noun phrase as the ‘direct object’ is probably more likely to be wrong than the Hierarchy Constraint. Bauer herself acknowledges that the notional grammatical categories of ‘Direct Object’, ‘Indirect Object’ and ‘Genitive’ are not easily defined in Māori. I consider these issues with relativisation to be suggestive of a problem with the traditional grammatical analysis of Māori.

Chapter 3

Research Methodology

3.1 Introduction

This chapter describes the process of compiling and organising the data used in this study. Section 3.2 discusses the corpus and the sources used to create it while section 3.3 describes how the data was organised and categorised. Section 3.6 outlines the statistical methodology.

3.2 Construction of the Corpus

The data used for this project comes from the *Digital Early Written Māori Corpus* which was compiled during 2009.

3.2.1 Size of the Corpus

The *Digital Early Written Māori Corpus* has 1100967 tokens (individual words) of 27359 types (different words). The total size of the corpus was determined by the word count reached by the end of the time period allocated for compiling the corpus. That time period was from 1 March till 19 June 2009.

3.2.2 Orthography

All the Māori examples in this work are presented using the current orthographic conventions of Te Taura Whiri i Te Reo (The Māori Language Commission). The corpus data however is not marked for vowel length because most of the material was written without marking vowel length as this did not become the orthographic convention until the mid 20th century.

3.2.3 Source Material

The *Digital Early Written Māori Corpus* (henceforth the DEWMC) could be described as ‘opportunistically targeted’. Teubert and Čermáková (2007, p. 142) define an opportunistic corpus as “a corpus which makes use of existing and readily available resources, does not claim to be representative and reflects the assumption that every corpus is inevitably imbalanced.”

The DEWMC is opportunistic in the sense that I used any material I could find (from the specified time period) that was already in a suitable digital format or could quickly be converted into the correct format. The correct format is a UNICODE 8 encoded plain text file.

The corpus is targeted, in the sense that the time period from which the data was taken was restricted, as much as verifiably possible, to material written in the 19th century. Some of the material was taken from sources that were published in the 20th century (as late as 1959) but most of that material is known to have been written much earlier. There are however a few pieces (from the *JPSlater* collection) for which the original source is unknown or cannot be dated.

3.2.4 Why focus on Early Texts?

As was mentioned in section 1.2, Māori suffered a catastrophic decline in the number of speakers in the early 20th century. For this reason, the differences between modern Māori and pre 20th century Māori are notable. There is at times, such a large difference between the language of younger speakers and that of older native speakers that mutual comprehension is not achieved. These differences cannot be explained by natural language shift alone. Due to the near generation-wide loss of Māori as a first language for children born in the mid twentieth century, there is a gap in the natural transmission of the language from generation to generation. Most

of the current younger generation of speakers have learnt Māori from a mixture of sources, not all of whom are fluent speakers of Māori (Mutu, 2005). The nature of the changes between older (often referred to as ‘classical’) Māori and modern Māori is an important field of study with regard to the preservation and revitalisation of the Māori language. However, in order to be able to establish how a feature of the language may have changed, a clear understanding of the starting point is necessary. It is for this reason that I am restricting my investigation to older texts.

3.2.5 The Sources

The DEWMC contains eight different collections of text. See figure 3.1 for a summary of the size of each part of the corpus.

- George Grey’s *Ngā Mahi a ngā Tūpuna* (1928) (79435 tokens) is a collection of traditional oral narratives collected and edited by Grey and originally published in 1854. Examples taken from this collection are identified by the label: (NMT).
- The *Letters to Sir Donald Maclean* (Alexander Turnbull Library, 2009) (90251 tokens) is a collection of letters belonging to Sir Donald Maclean. The collection includes letters from various Māori authors to Maclean as well as letters sent by Maclean in Māori. They date from 1840 to 1868. Examples taken from this collection are identified by the label: (MAC).
- *Te Whare Wānanga* by Nepia Pohuhu (Pohuhu, 1929) (5957 tokens). This is a document based on an 1863 recording of the words of Nepia Pohuhu of Ngāti Kahungunu. It concerns tribal history and lore. Examples taken from this collection are identified by the label: (NP).
- *Ngā Niupepa Māori* collection (New Zealand Digital Library Project, 2007) (52717 tokens). This is a collection of over 17,000 pages taken from Māori language publications from 1842 to 1932. The sources for the collection include 34 different Māori language periodicals and material written in a range of the dialects of Māori. The content of the various newspapers includes narrative, opinion, anecdote, letters to the editor, news, and announcements (Curnow et al., 2006). I was very interested in the Niupepa collection as it is a large body

of text from the appropriate time period that is already digitised (as text). Unfortunately, the text data that was automatically generated from the *Niuepepa* collection varied substantially in its quality and accuracy and I had to thoroughly proofread the text to correct any errors. For this reason I had to limit my use of the *Niuepepa* material to a small number of files from the following newspapers: *Te Hokioi*, *Matariki*, and *Te Paki o Matariki*. I limited myself to these particular publications for time constraint reasons only. Examples taken from this collection are identified by the labels: (HKI) for material taken from *Te Hokioi*, (MAT) for material taken from *Matariki*, and (PMAT) for material taken from *Te Paki o Matariki*.

- *Journal of the Polynesian Society: early collection and later collection* (JPSearly) (103497 tokens) and (JPSlater) (74373 tokens).

This collection consists of Māori language materials published in the *Journal of the Polynesian Society*. The ‘early’ collection covers material published between 1892 and 1911 while the ‘later’ collection covers 1912 to 1959. This is also a collection that is already digitised, and in this case, with a high level of accuracy. The majority of the material from the JPS is traditional oral narrative, but there are also some chants, poems and non fiction articles. Some of the JPS material is attributed to the original author but a lot of the later material is attributed to the person who collected or submitted the work. So, for some of the articles there is a lot of demographic information available while for others there is none. Examples taken from this collection are identified by the label: (JPS).

- *Ngā Kōrero Pāremete: 1881-1885* (New Zealand Electronic Text Centre, 2009) is taken from the *He pātaka kupe ture* (166659 tokens) collection of the New Zealand Electronic Text Centre (NZETC). The *He pātaka kupe ture* collection is a recent addition to the NZETC and is over 4 million tokens in size. At this stage however, the plain text version on the files is too inaccurate to use for my purposes, so I again had to proofread and this manually and therefore have only used the *Ngā Kōrero Pāremete: 1881-1885* section. Once this resource has been sufficiently cleaned up it will be very valuable indeed for this type of research. Examples taken from this collection are identified by the label: (LG).

- *The Ancient History of the Māori: His Mythology and Traditions* (W) (White, 2009) (528078 tokens). This collection of traditional oral narrative was first published in 1886. It has also been digitised by the New Zealand Electronic Text Centre but was in a much more accurate condition than the legal documents and I was therefore able to include over 500000 words of this collection in the DEWMC. Examples taken from this collection are identified by the label: (W).

	Tokens	Types
Whole corpus	1100967	27359
NMT	79435	3594
MAC	90251	4432
NP	5957	892
Niupepa	52717	3231
JPS early	103497	5264
JPS later	74373	4707
LG	166659	3511
White	528078	16998

Figure 3.1: Size of the collections in the DEWMC

Upon including text into the corpus, note was made of as much identifying information as possible with regard to the source (publication, author, iwi etc.). In addition to this, the genre of the material from which the data is taken is recorded. Whether the source material came originally from an oral source, (such as spontaneous speech or recordings of oral narrative) or a written source is also noted if possible. For many of the works, no such information was available. This demographic data was not used in this project but recording it allows for the possibility that it may be utilised in the future.

3.2.6 A Note on ‘Authenticity’

Both the Grey and the White collections have been criticized for lacking authenticity (McRae, 2000; O’Leary, 2004). These are both collections of traditional oral narrative made by Pākehā in the late 19th century. Most of Grey’s material was originally written by native speakers and

subsequently edited for publication by him. He is known to have altered the material somewhat to suit the audience of the time.

Much of the White collection was transcribed by White himself, from interviews with native speakers. It is suspected that there may be some errors in his transcription as well as similar editorial interference as there is with Grey's work. Likewise the JPS material has potentially been edited and altered by non native speakers. It might be thought that it would be best to compile a corpus that included only the work of native speakers. This is however a practical impossibility. The time it would take to transcribe the original manuscripts (where they could be found) would be too extensive for the scope of this project and there is no way of being assured of the 'authenticity' of such material anyway. Furthermore, there is a theoretical position that says that a corpus is an inherently imperfect collection of extant language and any analysis done on that corpus is and can only be an analysis of that corpus (Teubert and Čermáková, 2007).

3.3 Analysis of the Data in order to Answer Research

Question 1

Research question 1 is: "What is the frequency of the suffixed form of the verb (traditionally called the passive form)? More precisely: what percentage of verbs, in positions where both suffixed and un-suffixed forms are permitted to occur, are of the suffixed type?" In order to answer this question, I needed to be able to identify which verbal instances occur in slots where there would be a choice between the suffixed and the un-suffixed form of the verb.

As there is not yet any software available for automatically parsing Māori text into its constituent parts of speech, such parsing needs to be done manually. In a corpus of over a million tokens, this is not practically possible. Therefore, I decided to choose a selection of individual verbs and do the calculation based on them. The verbs I selected were: *pīrangī (-tia, -hia)*, *mahara (-tia)*, *hiahia (-tia)*, *āwhina (-tia)*, *titiro (tirohia)*, *mōhio (-tia, -hia)*, *whawhai (-tia)*, *kite (-a)*, *tono (-a)*, *whāngai (-a, -tia, -nga)*, *whakatau (-a, -kia, -ria)*, *takahi (-a)*, *kohi /kohikohi (-a)*, *tuhi (-a)*, *kawe (-a)*, *whakatū (-ria)*, *patu (-a)*, *kōhuru (-tia)*, *tuku (-a, -na)*, *tiki (-na)*. There are twenty in total. I selected these particular verbs so as to get an even spread of verb

types. I considered three verb types: *canonical* and *experiencer*¹ as defined by Bauer (1997, p. 40) and a third category, that of *di-transitive*, that is, verbs that may have three participant noun phrases associated with them. Usually, the participants would be an agent-like, a patient-like and a recipient or goal-like noun phrase. The term ‘di-transitive’ is not used here to describe a verb that must take three arguments. The reason I thought it was important to look at verbs of all these types is that it has been suggested that the suffixed forms are associated with high transitivity and it would be useful to be able to compare the behavior of these types of verbs.

Software The analysis of the corpus was done with the help of the open source concordance program *casualconc* (Imao, 2009).

3.4 Identifying and Categorising the Tokens

Many content words (bases) in Māori may act as verbs, nouns or modifiers. For example: *patu* may translate as ‘to hit’ or ‘to kill’ and may take the ‘passive’ form *patua*. It may be nominal and translate as ‘a club’ as in a weapon. It may also modify a noun as in *pakanga patu* meaning ‘club battle’.

In order to perform the calculation to establish the frequency of the suffixed form, I needed to identify which un-suffixed instances of each token occurred in a position where there would *potentially* have been a choice between the a-construction and the p-construction. Therefore I needed to eliminate all tokens where one or other of those options is grammatically prohibited and I also needed to identify those cases where one or other of those options would have clearly not made sense semantically. Using *casualconc*, I analysed each un-suffixed form of each of the chosen verbs and tagged them as belonging to one of the following 18 categories: *Noun*, *Name*, *Pseudo Passive*, *Modifier*, *Gerrund*, *Compound Verb*, *Actor Emphatic*, *Actor Emphatic Relative Clause*, *‘Ki te’ Complement*, *‘Me’ Imperative*, *Incorporated Object*, *Intransitive Imperative*, *Intransitive*, *a-construction*, *Fronted Agent*, *Relative Clause* and \emptyset *marked Clausal Object*.

The 18 categories were chosen on a somewhat ad-hoc basis as I went through the data and thus some of the distinctions may seem overly specific while others may seem overly broad. However, the primary purpose of this process was to identify the positions where there would have been a

¹Sometimes referred to by other authors as *middle* verbs.

choice between the a-construction and the p-construction. The first and most straight forward distinction was between verbal and non-verbal tokens followed by the distinction between the viable and the un-viable verbal positions. The various categories are briefly explained in the following sections and will be discussed again in more detail in Chapter 5.

3.4.1 Non Verbal Tokens

Any non-verbal uses were excluded from the final calculations. I categorised five types of non-verbal uses.

Nouns (N), Names (NN) Pseudo Passives or He mea clefts (PP), adjectival type modifiers (AM) and gerund type forms which are grammatically marked as nominal (NG).

1. N - Noun

Where the token (in bold) is a simple noun.

- (43) I whakawiria iho te tau o te **patu** ki te ringa
TAM shake-CIA DN1 the loop of the club INST the hand

‘The hand shook (downwards) the loop of the club.’ or ‘The loop of the club was shaken (down) by the hand.’ (NMT)

2. NN - Name

Where the token is a name (proper noun).

- (44) Ā, ka mea a **Whakatau** he haka kūare te haka a te iwi
and TAM say PERS Whakatau a dance useless the dance of the people
nei.
NEAR1

‘And, Whakatau said that the haka² of this people was a useless haka.’ (W7)

3. PP - Pseudo Passive

Where the token occurs in what is called known as a *pseudo passive* or *he mea cleft* (see (Bauer et al., 1997, p. 536)). This is a de-verbal construction.

- (45) Ā **he mea kōhuru** taua tamaiti nei e Ngāti Awa.
and a thing murder that child NEAR1 AGNT Ngāti Awa
‘And, this child was (a person who was) murdered by Ngāti Awa.’ (W5)

²A type of dance.

4. AM - Adjective type modifier

Where the token modifies a noun in an adjectival fashion.

- (46) hei ope **patu** i a Te Ratāu
TAM group hit ACC PERS Te Ratāu
'...as a fighting group to kill Te Ratāu.' (W10)

5. NG - Noun- gerund

Where a semantically verbal notion is presented grammatically as nominal.

- (47) I te pō i huakina ai te pā o Te Whare-umu ka rongo
TAM the night TAM open-CIA PART the village of Te Whare-umu TAM hear
te iwi o te pā o Tara-hape i te aue o te **patu** o tērā
the people of the village o Tara-hape ACC the lament of the beating of that
pā
village

'On the night that Te Whare-umu's village was raided, the people of Tara-hape's village heard the misery of the beating of that village' (W10)

3.4.2 Verbal Tokens

Once the non-verbal tokens had been identified and tagged the remaining *verbal* tokens needed to be more finely categorised in order to identify the positions that would have been viable for the p-construction.

3.4.3 Constructions where the Suffixed Form is Not Permitted Due to Grammatical Restrictions

I identified eight types of verbal constructions where the p-construction is clearly not permissible for grammatical reasons.

1. **VCE**- Verb-compound

This tag describes a verbal token that has another verb as a modifier. For the purposes of expediency, I designated these tokens as lexically distinct from the basic form of the verb and excluded them all together from the calculation.

- (48) Kei te **takahi haere** atu i ngā tapuae.
TAM stamp go AWAY ACC the-PL footprints
'Kaiarero (understood form earlier) was ceremonially stamping the footprints.' (JPS42)

Likewise, any suffixed compounds were excluded as in (49).

- (49) Heoi anō, ka **patua haeretia**, ā, horo atu te pā, a
so TAM kill-CIA go-CIA and all AWAY the village PERS
Poranga-hau.
Poranga-hau
'So, there was a battle and the village, Poranga-hau, fell.' (JPS31)

2. **VAE** Verb - Actor emphatic

The *actor emphatic* construction is a specialised verbal construction that does not pattern like a p-construction or an a-construction. See Bauer (1997, p. 501) and section 5.5.2 for a detailed discussion of the actor emphatic construction.

- (50) Mā te Atua rā e **titiro** ā tāua mahi.
of the Lord DIST TAM see of 1DINC work
'The Lord will see our work.' (HK2)

3. **VAERC** - Verb in an actor emphatic agent headed relative clause

Closely related to the *actor emphatic* construction the VAERC tag marks a verb in a relative clause which has as its head, the agent phrase of an actor emphatic construction. Bauer (1982, p. 324) calls this the 'case coding' strategy for relativisation.

- (51) He whanaunga hoki a Wi Parata nō Te Whiti nāna nei i
a relative also PERS Wi Oarata of Te Whiti belong-3SG NEAR1 TAM
tuku mai tēnei pitihana.
send TO1 this petition
'Wi Parata is also a relative of Te Whiti, who sent this petition here.' (LG)

4. **VKTC** - Verb in a *ki te* complement

The VKTC tag applies to a verb that occurs in a ‘ki te’ complement clause. The suffixed form of the verb is prohibited in complement clauses introduced by *ki te*.

- (52) Haere ana ngā Wīwī **ki te whawhai** ki tana iwi kirimangu.
go TAM the-PL French COMP fight ACC his/her people black-skinned
‘The French are going to fight his (their) black people.’ (HKI3)

The *ki te* complement phrase has the underlying structure of (53). The agent noun phrase (Ngā Wīwī) co-referentially deleted in the subordinate clause in (52).

- (53) Ka whawhai ngā Wīwī ki tana iwi kirimangu.
TAM fight the-PL French ACC his/her people black-skinned
‘The French fight their black people.’

5. **VMI** -Verb - *me* imperative

The suffixed form is prohibited in the weak imperative construction introduced by *me*.³ Interestingly, the noun phrases in these types of clauses are case-marked as if the suffixed form was being used.

- (54) Me kawē e ngā Māori tēnei raruraru ki Te Kooti
TAM carry AGNT the-PL Māori people this problem to Te Kooti
‘The Māori people should convey this problem to Te Kooti.’ (LG)

6. **VIO** - Verb - incorporated object

This tag marks a verb with an incorporated ‘object’. The suffixed form of the verb is not permitted in this type of construction as it is an intransitive construction.

- (55) Ko ngā wāhine rā e **kohi pipi** ana.
TOP the-pl women DIST TAM collect pipi TAM
‘The women there who are collecting pipi(s).’ OR ‘Those women who are *pipi-collecting*.’(JPS42)

³This rule would appear to be breaking down in modern Māori.

7. **VAIM**- Verb - un-suffixed intransitive imperative

This tag marks an un-suffixed imperative. There is a rule in Māori that intransitive imperatives take the un-suffixed form while transitive imperatives (i.e. those with an object) must use the suffixed form of the verb. Therefore it follows that any un-suffixed imperative may not be expressed by the suffixed form. Examples (56) and (57) show intransitive imperatives while (58) shows two transitive imperatives with suffixed verbs.

(56) **Titiro** atu, kei te ngangana tonu mai te moana.
look AWAY TAM the glow still TO1 the sea
'Look over there! The sea is still glowing.' (JPS20)

(57) \bar{A} ka mea a ia "E oho, e patu."
and TAM say PERS 3SG TAM wake TAM hit
'And, he said "Awake! Fight!." '(W7)

(58) Patua tāu tangata, whuia tāu rākau!
kill-CIA your-2SG person throw-CIA your-2SG spear
'Kill your person! Throw your spear!' (W3)

Any transitive imperatives were also excluded from the calculation, thereby removing imperative constructions from the discussion.

8. **VI** Verb- Intransitive

As the suffixed form of the verb is considered to imply a direct object even when there is no overt direct object, it follows that the intransitive uses of un-suffixed verbs (clauses with no P noun phrase) do not constitute possible slots for suffixed forms.

(59) Ka **kite** a Hare, ka mea ake, ka mea mai ki au kia
TAM see PERS Hare TAM speak UPWARDS, TAM speak, TO1 to me TAM
haere mai ki te whakawā tāone.
go TO1 COMP judge town
'Hare saw, Hare spoke, Hare told me to come here to judge the town.' (MAC5062)

9. **Vafa** - Verb with a fronted agent

This category covers any a-construction where the agent noun phrase is sentence initial.

This includes constructions of topicalisation, contrastive and non-contrastive focus as well as agent headed relative clauses. Example (60) shows a clause with an agent phrase that is fronted while (61) shows the underlying clause.

(60) Ko **ēnei tāngata** e rua e tino **mōhio** anō ki aua pūtaka katoa.
 TOP these people PART two TAM very know still ACC those reason all
 ‘These two people still really know all those reasons.’ (LG)

(61) E tino **mōhio** anō **ēnei tāngata** e rua ki aua pūtaka katoa.
 TAM very know still these people PART two ACC those reason all
 ‘These two people still know all those reasons.’

A p-construction cannot be used to front the agent in this manner as in (62). If the agent is fronted, the un-suffixed verb is used in the subordinate clause and likewise if it is the patient that is fronted the suffixed form of the verb is used in the subordinate clause. The **VAF** clause type is, by its nature, a focus type of construction and so the form of the verb is determined by whichever constituent needs to be focussed. If it is the A noun phrase then the un-suffixed verb will be chosen. Examples (63) and (64) show this. Example (63) shows a fronted agent with an a-construction while (64) shows a fronted patient with a p-construction both using the same general structure otherwise. Example (65) provides a second example of a patient noun phrase in focus.

(62) *Ko te tangata i patua te kuri.
 TOP the person TAM hit-CIA the dog.
 ‘The person who hit the dog.’

(63) Ko aua tāngata i **kawe** anō i o rātou mate ki te
 TOP those people TAM carry REFLEX ACC OF-PL 3PL concern to the
 Hupirimi Kōti whakawā ai, he aha te kupu whakahoki ki a rātou?
 supreme court judge LOC a what the word return to PERS 3PL

‘As for those people who carried their own concerns to the supreme court to be judged there, what is the response to them?’ (LG)

- (64) Ko ngā ākongā hōu anake ngā mea e **kawea** ki te wai,
 TOP the-PL student new only the-PL thing TAM carry-CIA to the water
 koko ai, me te whakapuare ngā taringa ki te wai.
 ritual chant LOC with the open the-PL ear INTS the water

‘It was only the new students who were carried to the water where there was ritual chanting and their ears were opened by the water.’ (W1)

- (65) Ahakoa he mātua, ka **patua** e mātou
 although EXT parents TAM kill-CIA AGT 1PEX

‘Although, they are parents, we kill them’ or ‘Although they are parents they are (still) killed by us.’ (MAC5258)

3.4.4 Constructions where the Suffixed Form is Grammatically Permissible

The suffixed form of the verb can theoretically occur in following three constructions.

1. **VA** - Verb - simple a-construction

This is the two-participant clause with an un-suffixed verb.

- (66) E **kite** koutou i te waka e whai mai ana i muri i
 TAM see you-pl ACC the boat TAM chase TO1 TAM LOC behind LOC
 a mātou.
 PERS 1PLEX
 ‘You will see the boat chasing us from behind.’ (W5)

The p-construction ‘equivalent’ sentence is shown in (67).

- (67) E kitea e koutou te waka e whai mai ana i muri i
 TAM see-CIA AGNT 2PL the boat TAM chase TO1 TAM LOC behind LOC
 a mātou.
 PERS 1PLEX

‘You will see the boat chasing us from behind.’ or ‘The boat chasing us from behind will be seen by you.’

2. **VISAWTHAT** - VERB with a \emptyset marked complement clause.

This type of construction is a complex sentence where the object of the matrix verb (which is the one being categorised) is a full clause. Bauer (1997, p. 609) calls them *noun*

clauses. The VISAWTHAT construction is much more common where the matrix verb is an *experiencer*, presumably for semantic reasons. Example (68) shows a prototypical VISAWTHAT clause with an *experiencer* verb. Example (69) shows another VISAWTHAT clause with the verb *kite*. Example (70) shows a similar construction using the suffixed form of the same verb *kitea*, thereby showing that this type of construction is permissible with suffixed verbs. The matrix verb is in bold and the clausal complement is enclosed in square brackets.

- (68) Ka **mahara** a Te Ao, [kua tinihangatia a ia e Kuharoa].
 TAM know PERS Te Ao TAM deceive-CIA PERS ISG AGNT Kuharoa
 ‘Te Ao knew that he had been deceived by Kuharoa.’ (JPS34)

- (69) Kātahi au ka **kite** [e huri ana anō ia ki te whakahē i ngā
 Then 1SG TAM see TAM turn TAM again 3SG COMP criticise ACC the-PL
 Māori o te Waipounamu.]
 Māori people of the South Island

‘Then I saw that he is turning again to criticise the Māori people of the South Island.’ (LG)

- (70) Ka **kitea** atu e tōna tuakana, e Whaene, [kua riro i
 TAM see-CIA AWAY AGNT his brother AGNT Whaene TAM taken AGNT
 a ia te ika.]
 PERS 3S the fish
 ‘His elder brother, Whaene saw that he had taken the fish.’ (JPS0031)

3. **VRC** - Verb in a non-agent headed relative clause

This tag is applied to verbs in relative clauses that are headed by a non-agent constituent. Example (71) shows a patient headed relative clause with the experiencer verb *mōhio*, while (72) shows the same event expressed with a p-construction.

- (71) Ko te tohu tuatahi tēnei i **mōhio** ai a Wairangi, he kohuru
 TOP the sign first this TAM know PART PERS Wairangi EXT murder
 te mahi a te iwi rā.
 the work of the people DIST

‘This is the first sign by which Wairangi knew that the work of that people was murder.’ (JPS41)

- (72) Ko te tohu tuatahi tēnei i **mōhiotia** e Wairangi, he kohuru te
 TOP the sign first this TAM know AGNT Wairangi EXT murder the
 mahi a te iwi rā.
 work of the people DIST

‘This is the first sign by which Wairangi knew that the work of that people was murder.’

Example (73) shows a relative clause with the canonical transitive *kōhuru* which has a time location phrase (the first phrase in bold) head. Example (74) shows the p-construction equivalent.

- (73) Tē kiia e ia tana kī ki a au **i te wā** i
 NOT say-CIA AGNT 3SG his speech to PERS 1SG LOC the time TAM
kōhuru ai a ia i a au.
 betray PART PERS 3SG ACC PERS 1SG
 ‘He did not say his speech to me at the time when he betrayed me.’ (W4)

- (74) Tē kiia e ia tana kī ki a au **i te wā** i
 NOT say-CIA AGNT 3SG his speech to PERS 1SG LOC the time TAM
kōhurutia ai au e ia.
 betray-CIA PART 1SG AGNT 3SG

‘He did not say his speech to me at the time when he betrayed me.’ or ‘He did not say his speech to me at the time when I was betrayed by him.’

3.5 Categorisation of the Suffixed Forms

I did not tag the suffixed forms of the verbs in the same way, as I took it to be the case that the suffixed form was permitted to occur where ever it did, in fact, occur. I excluded from the final calculation any, nominal, adjectival or imperative uses however, as they are clearly positions

where the un-suffixed form would be prohibited. I also tagged any instances of suffixed verbs occurring in relative clauses, for the purposes of analysing such constructions.

3.6 Statistical Analysis

Once the tokens were tagged, the total number of each type of tag for each individual verb was recorded. I then calculated the percentage of suffixed forms out of the total of all verbal uses for each individual verb and each category of verb. This yielded the percentage of p-constructions in the total verbal uses. However, this was not sufficient to answer research question 1 because it did not take into account the conditions where there would not have been a choice between the a-construction and the p-construction. Therefore I calculated the total number of un-suffixed forms deemed to be potentially substitutable for suffixed forms. That is, the number of un-suffixed verbs in the *viable* positions of VA, VISAWTHAT and VRC. I then added that total to the number of suffixed forms in viable positions (all instances that were not nominal, adjectival or imperative) and calculated the percentage of p-constructions in viable verbal positions for each individual verb and verb type. When establishing whether there was a statistically significant difference between the various categories of verb, a z test for two proportions was used.

Chapter 4

Results

4.1 Introduction

This chapter presents the results of the analysis of the 20 verbs under investigation. Section 4.2 puts forward the data pertaining to the frequency of the p-construction. Section 4.3 discusses the expression of agent noun phrases. Section 4.4 considers the telic a-constructions introduced by the verbal particles *i* and *kua*. Section 4.5 deals with the categorisation of two-participant verbs in Māori into ‘canonical transitive’ ‘di-transitive’ and ‘experiencer’ and then discusses each of the 20 verbs that were analysed with respect to their membership of those groups.

4.2 The Frequency of the P-construction

Out of a total of 10,151 verbal tokens of the suffixed and un-suffixed forms of *pīrangī* (-tia, -hia), *mahara* (-tia), *hiahia* (-tia), *āwhina* (-tia), *titiro* (tirohia), *mōhio* (-tia, -hia), *whawhai* (-tia), *kite* (-a), *tono* (-a), *whāngai* (-a, -tia, -nga), *whakatau* (-a, -kia, -ria), *takahi* (-a), *kohi* /*kohikohi* (-a), *tuhi* (-a), *kawe* (-a), *whakatū* (-ria), *patu* (-a), *kōhuru* (-tia), *tuku* (-a, -na), *tiki* (-na), **41%** were suffixed. This figure includes the verbs that occur in positions where the suffixed form of the verb is grammatically prohibited as discussed in Chapter 3. When these un-viable tokens are excluded, the percentage of suffixed forms in clauses where there should be a choice between

the suffixed and the un-suffixed form was **58%**.

An interesting phenomenon that became apparent quite early in this investigation was that there was a great deal of variation in the percentage of the suffixed form from verb to verb. This led me to hypothesise that the two types of verbs categorised by Bauer (1997, p. 39) as *canonical* and *experiencer* might show a difference in their preference for the suffixed form. In the initial stages of the investigation I thought that the di-transitive¹ verbs showed the strongest preference for the suffixed form followed by the ‘ordinary’ canonical transitives and then the experiencer verbs. This led me to specifically categorise the di-transitives as such.

The final results showed that in clauses where both constructions were viable, the canonical transitive verbs used the suffixed form **88%** of the time, di-transitive verbs **84%** and experiencer verbs **34%**. The frequency of the use of the suffixed form when the canonical and the di-transitive groups are combined as ‘total transitive’² is **86%**. Based on the z-test for two proportions, there is no statistically significant difference for the canonical and di-transitive categories, thus they cannot be considered to constitute distinct groups with regard to preference for the passive. Again using the z test for two proportions, the difference between the *Transitive* (consisting of the canonical and di-transitive groups) verbs and the *experiencer* verbs is statistically significant with a very high degree of confidence. Therefore it can be concluded that these two categories of verbs constitute distinct groups with respect to the preference for the p-construction. The *Transitive* verbs strongly favour the p-construction while the *Experiencer* verbs have a much lower preference.

The data for the individual verbs can be seen in figures 4.1 and 4.2, while the data for the verb categories can be seen in figures 4.3 and 4.4. For the purposes of this calculation the verbs are categorised as ‘canonical’ (marked [C] in figures 4.1 and 4.2), ‘di-transitive’ (marked [D]) and ‘experiencer’ (marked [E]). Some problems with this issue of categorisation will be discussed in section 4.5.

¹See sections 1.3.4, 3.4 and 4.5 for clarification of the use of this term.

²This group will be denoted by the term ‘Transitive’ with an uppercase ‘T’ henceforth.

Percentage of Suffixed Verbs out of all Verbs in Viable Positions

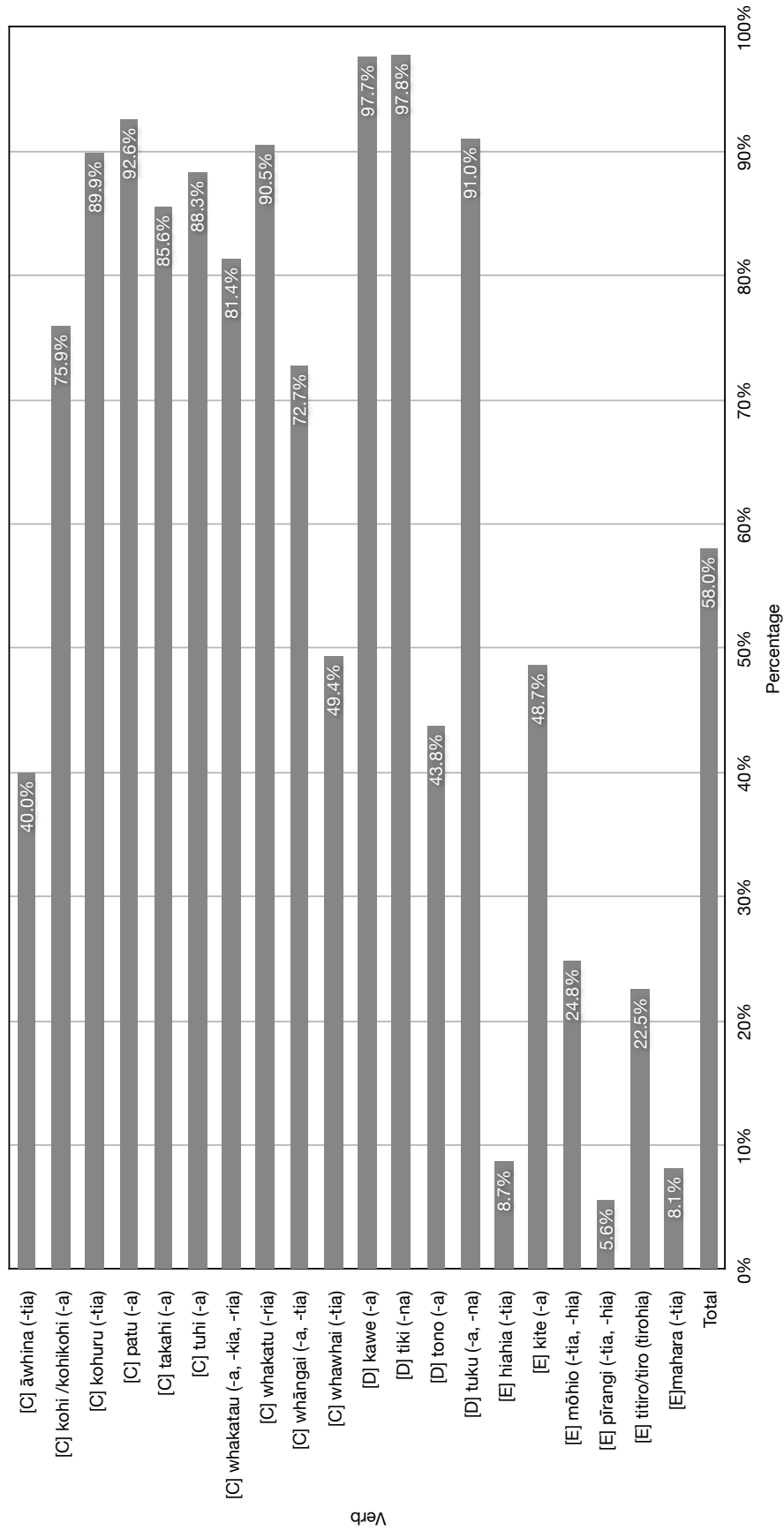


Figure 4.1: How frequently the suffixed form of the verb occurs in clauses where both the suffixed and un-suffixed forms are grammatically viable: by individual verb. (c.f. section 4.5)

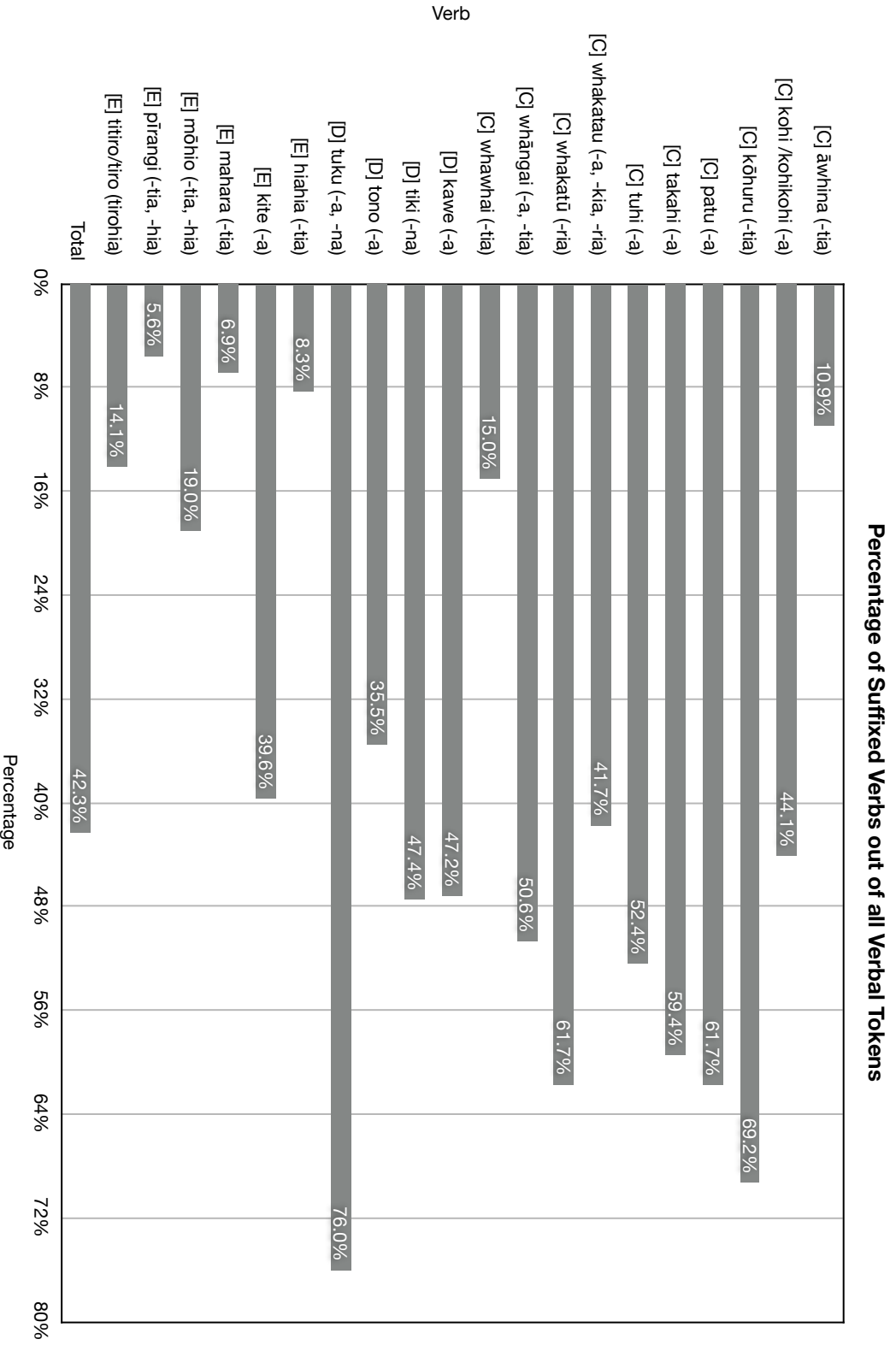


Figure 4.2: How frequently the suffixed form of the verb occurs in all verbal clauses: by individual verb. (c.f. section 4.5)

	Percentage of suffixed forms out of the total viable positions	Percentage of suffixed forms out of total verbal tokens	Un-suffixed verbal tokens	Suffixed verbal tokens	Total verbal tokens	Viable un-suffixed tokens	Viable suffixed tokens	Total viable positions
Canonical	87.72%	54.14%	1319	1557	2876	213	1521	1734
Di-Transitive	83.61%	59.79%	1271	1890	3161	331	1688	2019
Transitive	85.50%	57.10%	2590	3447	6037	544	3209	3753
Experiencer	34.21%	26.63%	4177	1516	5693	2858	1486	4344
Total	57.98%	42.31%	6767	4963	11730	3402	4695	8097

Figure 4.3: Table of how frequently the suffixed form of the verb occurs: by verb type

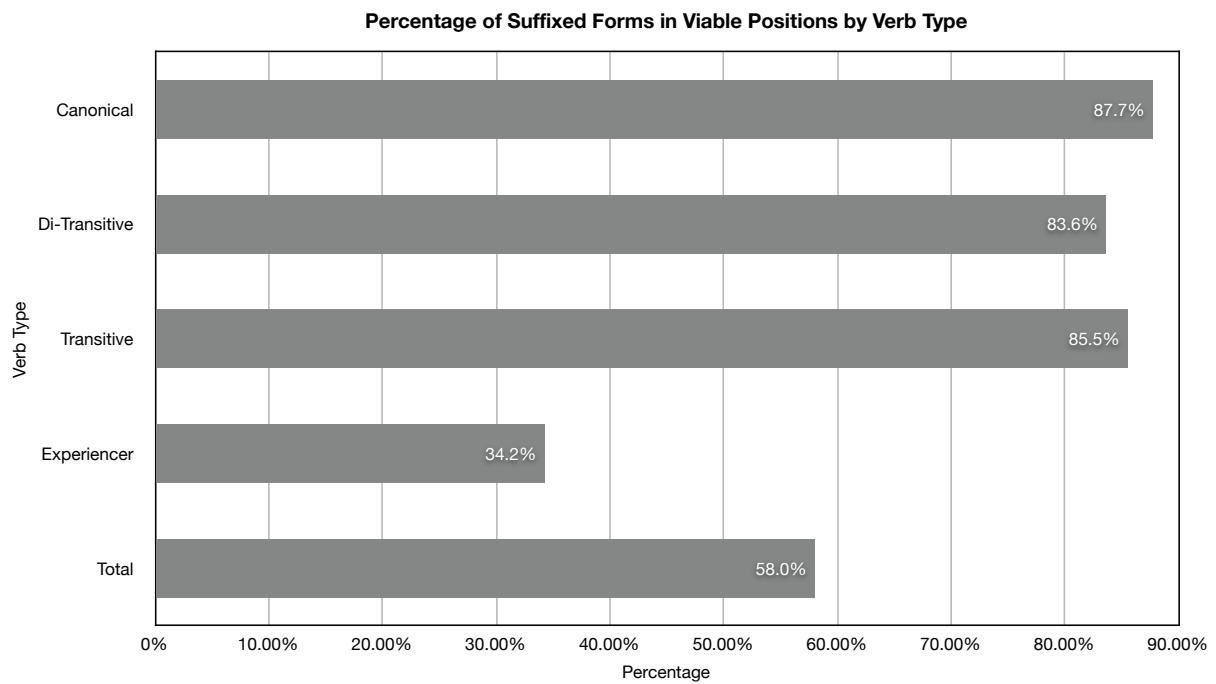


Figure 4.4: How frequently the suffixed form of the verb occurs in clauses where both the suffixed and un-suffixed forms are grammatically viable: by verb type

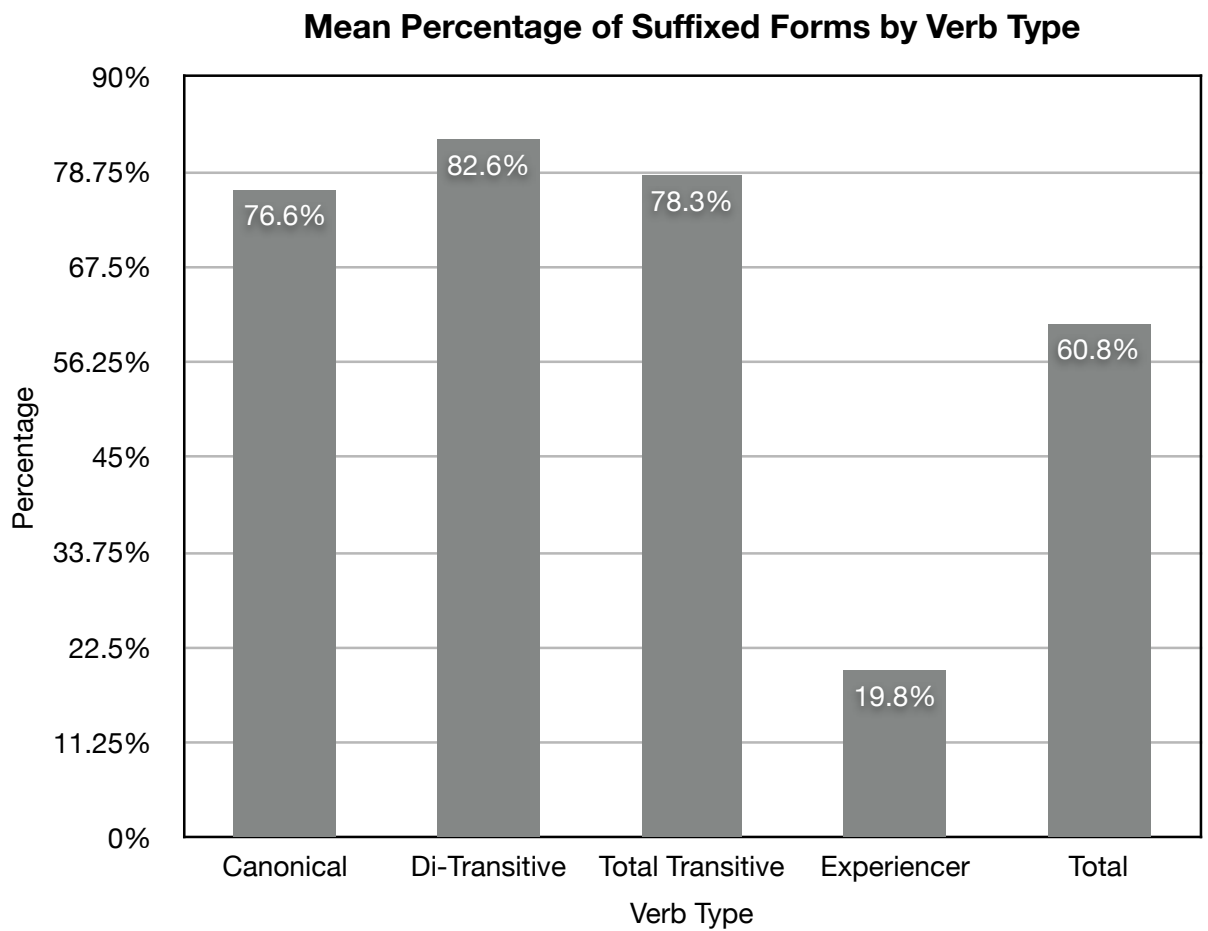


Figure 4.5: The mean frequency of the suffixed form of the verb as it occurs in clauses where both the suffixed and un-suffixed forms are grammatically viable: by verb type

4.3 The Expression of Agents

It has been observed that agent-less passives are preferred, cross linguistically, even when agent noun phrases are permissible in such clauses (Keenan, 1985). This is said to be due to the functional role of passives as a means of de-focussing the agent. In the DEWMC the agent is overtly expressed in 35% of all clauses where a suffixed verb occurs. For *experiencer* verbs the figure is 36%, for *canonical transitives* it is 40%, for *di-transitives*, 31% and for the *Transitives* 35%. See figures 4.6 and 4.7 for a graphical representation of this data. In VA a-constructions the rate of overt expression of agents is similar at 38%.

There are two (related) discourse factors which contribute to the low realisation of agent noun phrases. The first is that, in discourse, once the agent is initially identified (and has become *given*, in the discourse sense) it is often reduced in subsequent mentions, either to pronoun form or to \emptyset . In Māori, *given* information is often realised as \emptyset while it is a continuing topic (Bauer et al., 1997, 660). The second factor which contributes to the non realisation of agent noun phrases is that *new* information is dis-prefered in the A position. *New* information is most likely to occur in the S or the P position (Du Bois, 1987). Therefore, in Māori, when the *new* information is an agent, it is likely to occur in a Sa position. So once the *new* 'A' has been introduced, it is no longer necessary to overtly express it. Therefore, agent-less p-constructions are not necessarily agent-less to de-focus the agent but rather because the agent is already known.

Verb	Verb type	Total verbal forms where the a-construction is permissible	Overt agent	Percentage of instances with overt agents
āwhina (-tia)	Canonical Transitive	6	2	33.33%
kohi /kohikohi (-a)	Canonical Transitive	40	13	32.50%
kohuru (-tia)	Canonical Transitive	89	42	47.19%
patu (-a, -kia)	Canonical Transitive	953	380	39.87%
takahi (-a, -na)	Canonical Transitive	83	44	53.01%
tuhi (-a)	Canonical Transitive	106	30	28.30%
whakatau (-a, -kia, -ria)	Canonical Transitive	48	28	58.33%
whakatu (-ria and -kia)	Canonical Transitive	121	33	27.27%
whāngai (-a, -tia,)	Canonical Transitive	17	13	76.47%
whawhai (-tia)	Canonical Transitive	40	11	27.50%
Canonical	Total	1503	596	39.65%
kawe (-a)	Di-transitive	208	67	32.21%
tiki (-na)	Di-transitive	276	56	20.29%
tono (-a)	Di-transitive	169	88	52.07%
tuku (-a, -na)	Di-transitive	1012	300	29.64%
Di-transitive		1665	511	30.69%
hiahia (-tia & -tiated)	Experience	32	18	56.25%
kite (-a)	Experience	1093	395	36.14%
mōhio (-tia,)	Experience	234	63	26.92%
pīrangi (-tia)	Experience	1	1	100.00%
titiro (tirohia)	Experience	98	45	45.92%
mahara (-tia)	Experience	27	9	33.33%
Experiencer		1485	531	35.76%
Total Transitive		3168	1107	34.94%
Total		4653	1638	35.20%

Figure 4.6: The percentage of clauses containing suffixed verbs that overtly express an agent

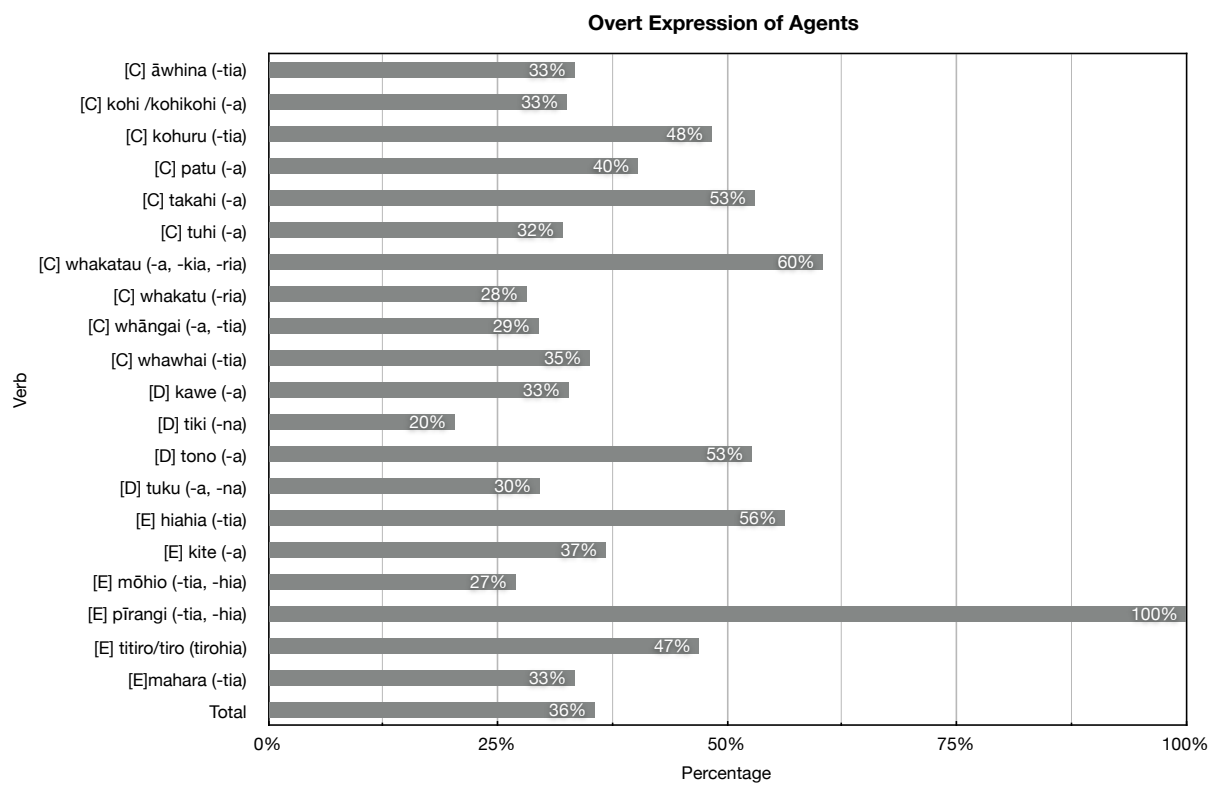


Figure 4.7: The percentage of clauses containing suffixed verbs that overtly express an agent

4.4 Incidence of A-constructions Introduced by the Explicitly Telic Verbal Particles *i* and *kua*

It has been noted that a-constructions are not common with the verbal particle *i*. This verbal particle marks the simple past tense and explicitly denotes perfectivity. Bauer (1997, p. 479) provides an example shown here in (75) that was rejected by some native speakers and corrected to either the p-construction as in (76) or the actor emphatic as in example (77).

(75) ?I here atu a Huia i ngā kuri.
 TAM tie AWAY PERS Huia ACC the-PL dog
 ‘Huia tied up the dogs.’

(76) I herea atu ngā kuri e Huia
 TAM tie-CIA AWAY the-PL dog AGNT Huia
 ‘The dogs were tied up by Huia’ or ‘Huia tied up the dogs.’

(77) Nā Huia ngā kuri i here atu.
 of Huia the-PL dog TAM tie AWAY
 ‘Huia tied up the dogs.’

There are 22 examples (of the tagged verbs) in the DEWMC of un-suffixed Transitive verbs in matrix clauses (VA) with the verbal particle *i*. There are 309 VA clauses with Transitive verbs and 2571 tokens of un-suffixed Transitive verbs. Thus past tense main clauses with ‘i’ account for 7% of all the VA clauses and 0.9% of the total number of a-constructions.

The verbal particle ‘kua’ explicitly denotes the perfect aspect. Like ‘i’, it is also uncommon with a-constructions. There are 15 VA clauses with Transitive verbs that have ‘kua’ as the verbal particle out of a total of 309 VA clauses. This is 4.9% of VA clauses and 0.58% of all a-constructions. See figure 4.8 for the distribution. This data would indicate that these constructions are indeed dis-preferred, although not impossible.

	<VA>	Total un-suffixed verbal tokens	% of VA clauses with 'kua'	% of VA clauses with 'i'	% of all a-constructions with 'kua'	% of all a-constructions with 'i'
Canonical	159	1,304	5.0%	14.5%	0.6%	1.8%
Di-Transitive	150	1,267	4.7%	6.0%	0.6%	0.7%
Transitive	309	2,571	4.9%	7.1%	0.6%	0.9%
Experiencer	1,414	4,168	10.6%	9.4%	3.6%	3.2%
Total	1,723	6,739	9.6%	9.0%	2.4%	2.3%

Figure 4.8: The percentage of a-constructions with the explicitly perfective verbal particles ‘kua’ and ‘i’ : by verb type

4.5 Verb Types

The existence of two types of transitive verbs is described throughout the Polynesian language family (Chung, 1978; Clark, 1973b; Bauer et al., 1997). These two types of verb have been given various names but all the descriptions are reasonably comparable to the Māori categories of *canonical transitives* and *experiencers*. Ota (2000, p. 40) however asserts that the Eastern Polynesian languages do not have a grammatical category of ‘middle’ or ‘experiencer’ verbs. Although such a category does in fact appear to exist in Māori, as was noted in section 1.3.3, the membership of the class is not entirely clear. On the basis of the semantic definition provided by Chung (1978, p. 47) the *experiencer* class should include all verbs of perception and emotion, and some verbs of communication. However, Bauer (1982; 1997) has observed that membership of the *experiencer* category is not unequivocal in Māori. She proposes a number of ways in which members of this group behave differently from *canonical transitives*. The first is compatibility with the question *I aha ia?* (What did s/he do?) to which prototypical *experiencer* verbs cannot ‘form suitable answers’. Applying this test to my examples was outside the scope of this project.³ The second test, is incompatibility with the *actor emphatic* construction and the third is the selection of *ki* rather than *i* as the ‘direct object’ marker. The fourth issue identified by Bauer is the strategy available to this type of verb for relativising on the ‘direct object’ or Pa noun phrase. Prototypical *experiencer* verbs may relativise directly on the Pa noun phrase in a way that *canonical transitives* may not. Bauer herself notes that there are many verbs that fit the

³I actually suspect that this might be an error as the question *I ahatia ia?* (What was done to him/her?) would appear to make more sense as a test.

semantic criteria for *experiencer* verbs that do not meet all of these criteria and that she has not established a absolute test based on grammatical conditions for this verb class.

I would suggest that her second test, incompatibility with the actor emphatic construction, is slightly weak and may require further investigation.

It is clearly logical to expect that *experiencer* verbs should not be compatible with the actor emphatic construction. In terms of thematic relations, there is no agent argument present with *experiencer* verbs but rather an ‘experiencer’. Therefore, the actor emphatic construction, which serves to emphasise the agent, would not seem to be semantically appropriate.

Nevertheless, my data shows that 4 of the 6 *experiencer* verbs that were tagged in the DEWMC occur in the actor emphatic construction. The two verbs that do not occur in the actor emphatic construction are *pīrangī* and *hihia*. These two verbs are synonyms meaning *to desire* or *to want* and would appear to be good examples of *experiencer* verbs. The two experiencer verbs that occur the most frequently in actor emphatic construction are *kite* meaning *to see* and *titiro* meaning *to look*. They occur 29 and 30 times respectively. This seems too frequent to be explained away as errors. I checked 11 other notionally *experiencer* verbs and found that 4 of them occurred in actor emphatic clauses in the DEWMC while the other 7 did not. Out of a total of 15 notionally *experiencer* verbs in the DEWMC (including the 6 that were thoroughly tagged) 7 occurred in AE clauses while 9 did not. See table 4.1 for a summary. I tentatively propose that the actor emphatic is *marginally* acceptable with *experiencer* verbs that have a higher possibility of a degree of volitionality over the experience.

A further point of interest is that the verbs of perception that were tagged in the DEWMC that occurred in the actor emphatic construction also had a higher preference for the p-construction than the other experiencer verbs that were counted. I will come back to this point in section 5.3.6.

In terms of assigning verbs to the *experiencer* class it is best to start with the semantic criteria, and then apply the other tests. The more tests the verb passes the more prototypical its membership of the group. I propose that showing a low preference for p-constructions should be added to the list of tests for membership of the *experiencer* verb class.

Chung makes the following statement with regard to this class of verbs in Polynesian lan-

guages. “Strictly speaking, the terms accusative and ergative refer only to the case marking of intransitive and canonical transitive clauses. Middle clauses exhibit a separate case pattern” (Chung, 1978, p. 47). She clearly considers that this class of verbs constitutes a grammatically distinct group. Clark (1973b, p. 580) agrees that these two categories of verbs in Māori are analogous to the two categories of verbs in the Samoic Outlier and Tongic groups. I will therefore take the position that the notional category of *experiencer* verbs, is separate from that of *canonical transitive* verbs with respect to the case marking system.

Table 4.1: Experiencer Verbs in the Actor Emphatic Construction

Verb	Gloss	Found in AE?
titiro	to look	yes
whakapono	to believe	yes
rapu	to seek	yes
kimi	to seek	yes
whai	to possess	yes
kite	to see	yes
mahara	to know or remember	yes
mīharo	to marvel at	no
pīrangi	to desire	no
hiahia	to desire	no
aro	to pay attention to	no
hakiri	to hear or feel indistinctly	no
mōhio	to know	no
whiwhi	to obtain or inherit	no
wehi	to fear	no
rongo	to hear	no

The fact that the experiencer class of verbs does exist in Māori but is not clearly defined would suggest that the category may have begun to break down. This would appear to lend support to the theory (Clark, 1973a; Ota, 2000) that Māori is more conservative than the sister languages of the Eastern Polynesian family. This in turn supports the theory that the accusative pattern is an innovation in Eastern Polynesian.

4.5.1 A Discussion of the Verbs used in this Study

Māori vocabulary items often exhibit both polysemy and homonymy. Therefore the inherent transitivity of a particular vocabulary item can be variable. A good example of this is the ‘stative’

verb *mate* which can have meanings ranging from ‘to be dead’ to ‘to be mildly irritated’ and everything in between, as well as ‘to sicken for’. With this in mind, as well as the aforementioned difficulty in conclusively assigning individual verbs to each verbal category, what follows is a brief description of each of the verbs used in this study. The two issues of particular interest are: the degree of confidence with which the verb in question belongs to the category it has been assigned, and the range of possible translations for that verb and how that impacts on the potential transitivity of clauses involving that verb. Unless otherwise specified, when a figure for the frequency of the suffixed form is given, it is the frequency of the suffixed form in clauses where both the suffixed and the un-suffixed form are permissible i.e. *viable* positions.

4.5.2 Considered ‘Canonical’ for the Purposes of the Calculation

As discussed in section 4.5 canonical transitive verbs are the category of verbs in Māori that are most prototypically transitive. In two-participant sentences the referents of the noun phrases are prototypically, an agent and a patient.

Āwhina(-tia)

Āwhina is glossed as *to help*. With respect to the preference for the suffixed form, *āwhina* shows a much weaker preference (at 40%) than the mean preference for canonical transitives (76.63%). *Āwhina*’s preference for the suffixed form is much closer to the mean preference for experiencer verbs of 19.84%. *Āwhina* does not, however, allow sentences such as the one shown in (78) which attempts to relativise on the patient noun phrase (Pa) ‘ngā tamariki’ using the ‘direct strategy’ which should produce an acceptable sentence for an *experiencer* verb.

- (78) *Kua haere atu ngā tamariki i āwhina ai te kaiako.
 TAM go AWAY the-PL children TAM help PART the teacher
 ‘The children who the teacher helped, have left.’

This sentence becomes acceptable when the p-construction is used as in (79). With respect to relativising on the Pa noun phrase, *āwhina* behaves like a typical *canonical transitive*.

- (79) Kua haere atu ngā tamariki i **āwhinatia** e te kaiako.
 TAM go AWAY the-PL children TAM help-CIA AGNT the teacher
 ‘The children who the teacher helped, have left.’

Āwhina also occurs in the actor emphatic construction. It is possible that the low preference for the suffixed form observed in the DWEMC is a result of an error generated by a sample size. There are only 55 verbal instances of *āwhina* (-tia) in the DEWMC.

kohi (-a)

76% of the instances of *kohi*, *to collect*, are suffixed. In this and in every other respect, *kohi* behaves like a typical *canonical transitive*. *Kohi* has a reduplicated form *kohikohi* which would not appear to change the meaning at all and both forms have been counted for this study.

kōhuru (-tia)

Kōhuru is glossed as *to murder* or *grievously ill treat* which is semantically highly transitive. 90% of instances of *kōhuru* are suffixed and it patterns consistently as a *canonical transitive*.

whawhai (-tia)

Whawhai is glossed as *to fight* and like the English equivalent it is often used intransitively as in (80).

- (80) E **whawhai** ana ngā tama.
 TAM fight TAM the-PL boy
 ‘The boys are fighting.’

Whawhai patterns grammatically as a canonical transitive when it does have a patient noun phrase as in (81) in most respects.

- (81) E hiahia ana te Tianara ki te **whawhai** ki Waikato, ki te mea he
 TAM desire TAM the General COMP fight ACC Waikato to the thing EXT
 tika.
 correct
 ‘The General wishes to fight (with) Waikato because it is right.’ (HK2)

However, it usually introduces the patient noun phrase with ‘ki’ rather than ‘i’ and it has a low preference for the suffixed form, 49% when compared to the mean for canonical transitives of 77% and the mean for (all) Transitives of 78%. For these reasons, this verb would appear to be a slightly dubious example of a canonical transitive.

whāngai (-a, -tia)

Whāngai, to feed, only had 70 verbal tokens in the DEWMC so the data pertaining to this verb may also have been skewed by a small sample size. It has a 73% preference for the suffixed form.

whakatau (-a, -kia, -ria)

Whakatau has a wide range of English translation equivalents⁴ including: *to imitate, mime, mimic, act out, decide, settle, officially welcome, prepare, put on as an ornament, adorn*. The primary sense probably being *to ‘settle’ or ‘reslove’ or ‘sort out’*. It can be seen that there is some variation in the inherent transitivity of these senses but the preference for the suffixed form is still 81% which is not statistically significantly different from what would be expected of a *canonical transitive*, nor does *whakatau* show any other unexpected behaviour in the DEWMC.

takahi (-a, -na)

Takahi is glossed as *to stamp* or *to ritually trample* and is often used metaphorically. It has an 86% preference for the suffixed form. There is nothing to suggest that this verb is not a fairly prototypical example of a *canonical transitive* although the sample size is on the small side at 97.

whakatū (-ria, -kia)

Whakatū has a wide range of translation equivalents including *to erect, put up, construct, elect, stop, stand up, establish, put on, instigate, appoint* or *place*. Despite the apparent variability

⁴The root form *tau* has eleven separate entries in the Williams Dictionary (Williams, 2000) with up to eleven senses for each entry.

of the inherent transitivity of some of these senses *whakatū* shows a typical (for a *canonical transitive*) preference for the suffixed form at 90%. The reason why the figure is not noticeably reduced by the senses of *whakatū* with low transitivity, is of course partially explained by the fact that any actual intransitive uses were left out of the calculation for the frequency of the suffixed form.

patu (-a, kia)

Patu also has range of English translation equivalents but the range is somewhat narrower than that of some of the other verbs and all the senses are inherently highly transitive. They include *to strike, hit, beat, kill, subdue* or *ill-treat*. It has a 93% preference for the suffixed form and is in all respects a good example of a *canonical transitive*.

tuhi (-a)

Tuhi, to write, occurs with the suffix 88% of the time which is consistent with the pattern exhibited by *canonical transitives*. *Tuhi* shows an unexpected trait in that it is able to relativise ‘directly’ on the Ap noun phrase in the manner only hitherto considered possible for *experiencer* verbs. *Tuhi* has another, less transitive⁵ meaning, *to point* but this is not the sense being used in any of the examples of this type of relative clause in the the DEWMC. Example (82) shows an example of this type of relative clause with the underlying sentences in (83) and (84). It is interesting that there are three noun phrases involved in the action in (84), the agent, the patient and the recipient. The second gloss for this example is more literal and perhaps better shows that this sentence is very similar to the type of di-transitive sentence seen with verbs like *kawe* and *tuku*. *Tuhi* is uncontroversially a verb of communication and I would suggest that the grammaticality of (82) is related to this fact. The issue of relativisation with verbs of communication is discussed further in the following sections.

- (82) Kia rongo mai koe ki taku tikanga i **tuhi** atu ai au ki a koe.
 TAM hear TO1 2SG to my issue TAM write AWAY PART 1SG to PERS 2SG
 ‘May you attend to the matter that I wrote to you about.’ (MAC4821)

⁵It has low kinesis and low level of affectedness of the patient.

- (83) Kia rongo koe ki taku tikanga.
 TAM hear 2SG to my issue
 ‘May you listen to my issue.’
- (84) I tuhi au i taku tikanga ki a koe.
 TAM write 1SG ACC my issue to PERS 2SG
 ‘I wrote to you about my issue.’ or ‘I wrote my issue to you.’

4.5.3 Considered ‘Di-Transitive’ for the Purposes of the Calculation

The term ‘di-transitive’ is used somewhat loosely here to mean ‘may take three arguments’ rather than ‘must take three arguments’. These verbs are usually considered to be members of the *canonical transitive* class (Bauer et al., 1997) and they do show the same preference for the p-construction in the DEWMC. However, they exhibit a difference in relation to relative clause formation. These verbs, as with *tuhi* in (82) would appear to be able to freely relativise on the Pa noun phrase using the direct method previously thought to only be acceptable for *experiencer* verbs.

kawe (-a)

Kawe, to carry or convey, shows an extremely high preference for the suffixed form at 98%. In most respects it behaves like a typical *canonical transitive*. There are no examples with *kawe* of relative clauses with patient noun phrase heads in the DEWMC, so *kawe*’s ability to relativise directly on the Pa noun phrase is unknown.

tiki (-na)

Tiki, to fetch, shows no unexpected behaviour and does not have any examples of relative clauses on Pa noun phrases that use the \emptyset strategy in the DEWMC. There are three relative clauses that have Pa heads and they all use the possessive relative strategy. I would suggest that the \emptyset strategy is not available for *tiki* because it does not have any senses which constitute communication verbs. 98% of the instances of *tiki* were suffixed.

tuku (-a, -na)

In clauses which could be of either the ‘a’ or ‘p’ type, *tuku* has a 91% preference for the p-construction. *Tuku* can translate as *to release, let go, give up, leave, resign, put off, descend, get off, relinquish, let down, set free, allow, send, present, offer, cede, grant, pass or serve*. Some of these concepts are somewhat less transitive than others and some of them would appear to be able to pattern grammatically in a ‘stative-like’ or ‘unmarked passive-like’ fashion.

The examples below show some of the unusual uses of *tuku*. Example (85) shows a straight forward example of an a-construction with a \emptyset agent phrase. Example (86) shows a sentence describing a very similar event (the nose in (86) is being presented for the purposes of a hongi as in (85)) but here the ‘ihu’ or ‘nose’ noun phrase is not introduced by ‘i’. The sentence is either some kind of unmarked passive as implied by the first two translations, or, rather less controversially, it may be an example of the ‘body part as agent’ phenomenon that is fairly common in Māori narrative.

- (85) Kua **tuku** mai i tana ihu ki te hongī.
TAM present TO1 ACC his nose to the nose pressing greeting
‘(He) presented his nose to hongi (press noses in greeting).’ (W10)

- (86) Ka **tuku** iho te ihu ki a Hīhi-o-Tote.
TAM present DN1 the nose to PERS Hīhi-o-Tote
‘The nose was presented to Hīhi-o-Tote’ or ‘He presented his nose to Hīhi-o-Tote’ or ‘The nose presented (itself) to Hīhi-o-Tote.’ (W10)

The following three examples, (87), (88) and (89) show a relative clause on the Pa noun phrase using the direct method. This example is an act of communication but the verb in question is not a communication verb. The P noun phrase is the ‘instrument of communication’.

- (87) Ka tae mai tō reta i **tuku** mai nei i Taranaki ki a mātou.
TAM arrive TO1 your letter TAM send TO1 NEAR1 from Taranaki to PERS 1PLEX
‘Your letter that was sent to us from Taranaki arrived here.’ (HK3)

Where the underlying sentences are as follows.

- (88) I **tuku** mai koe i tō reta mai i Taranaki ki a mātou.
 TAM send TO1 2SG ACC your letter TO1 from Taranaki to PERS 1PLEX
 ‘You sent your letter to us from Taranaki.’

- (89) Ka tae mai tō reta.
 TAM arrive TO1 your letter
 ‘Your letter arrived.’

tono (-a)

Tono can be glossed as *to request, send, ask for, apply for, order, demand, bid or command*. This range of meanings can reasonably all be subsumed under the general meaning of *to request* and I would therefore consider *tono* to actually be a speech verb. It has a lower preference for the p-construction than the other ‘di-transitive’ verbs at 44%. Of the 216 viable a-constructions with *tono* 116 of them are VISAWTHAT clauses (see chapter 3 and section 5.5.3). Example (90) is such a clause. Using a clausal complement of this kind is perfectly normal for reported speech in Māori (Bauer et al., 1997, p. 612). Over half of the viable a-constructions with *tono* occur in VISAWTHAT clauses. If these are excluded from the calculation (either on the grounds that they are intransitive or that they are examples of a lexically separate *experiencer* verb form of *tono*) then *tono* has a 63% preference for the p-construction.

- (90) Kātahi rātou ka **tono** [kia utu ngā Māori mō tō rātou takahi i
 Then 3PL TAM demand TAM pay the-PL Māori people for of 3PL stamp ACC
 te ture.]
 the law
 ‘Then they demanded that the Māori people pay for their breach of the law.’ (LG)

Examples (91), (92) and (93) show a ‘Pa’ relative clause and its underlying sentences.

- (91) E whakapai ana hoki au ki te whakaaro a Te Arawa e **tono**
 TAM CAUSE-good TAM also 1SG ACC the thought of Te Arawa TAM request
 nei kia whakahaerea tēnei Ture ki tō rātou takiwā.
 NEAR1 TAM CAUSE-go-CIA this law at of 3PL district

‘I am dealing with the idea that Te Arawa are requesting to control this law relating to their district.’ (LG)

- (92) E whakapai ana hoki au ki te whakaaro.
 TAM CAUSE-good TAM also 1SG ACC the idea
 ‘I am also sorting out the idea.’

- (93) E tono ana a Te Arawa ki te whakaaro kia whakahaerea tēnei
 TAM request TAM PERS Te Arawa ACC the idea TAM CAUSE-go-CIA this
 ture.
 law
 ‘Te Arawa requested (the idea) that the law be directed (by them).’

4.5.4 A note on ‘Pa’ Headed Relative Clauses with ‘Di-Transitive’ Verbs that Utilise the ‘Direct Strategy’

The fact that there seem to be several examples of ‘di-transitive’ verbs relativising directly on the Pa noun phrase is very interesting and possibly poses a problem for Bauer’s (1982) description of relative clause formation in Māori. One factor that could be at work in this situation is that some of the senses of the di-transitives are able to function as speech verbs. According to Chung (1978, p. 47) verbs of communication sometimes function as *experiencer* verbs and of course *experiencer* verbs can relativise directly on the ‘Pa’ noun phrase. It is not at all clear however that speech verbs in general function as *experiencer* verbs in Māori. Furthermore the ‘speech verb’ theory does not account for all the examples of this type of relative clause with di-transitives. Example (87) shows a \emptyset strategy relative clauses on Pa noun phrases. The verb *tuku* is not *easily* interpreted here as verb of communication, although the sentence is concerned with communication.

4.5.5 Considered ‘Experiencer’ for the Purposes of the Calculation

The prototypical features of *experiencer* verbs are:

- They meet the semantic criteria of having a noun phrase that carries the thematic role of *experiencer* rather than that of *agent*.
- Likely candidates for membership are therefore: verbs of perception, cognition, communication and emotion.
- They usually use ‘ki’ rather than ‘i’ to mark the P noun phrase in a-constructions.
- They permit the direct or \emptyset strategy for relativising on ‘Pa’ noun phrases.
- They do not form suitable answers to the question “*I ahatia ia?*”, *What happened to him/her?*
- They are not compatible with the actor emphatic construction.
- They have a significantly lower preference (34% of total uses and a mean preference of 20%) for the p-construction than Transitive verbs.
- They therefore constitute a distinct category of verbs.

The following section will briefly discuss the verbs that were categorised as *experiencer* for the purposes of the calculation with respect to the cardinality of their *experiencer* class status.

hiahia (-tia, -tiatia), p̄irangi (-tia) and mahara (-tia)

These three verbs prefer the p-construction 9%, 6% and 8% of the time respectively. *Hiahia* and *p̄irangi* both mean *to desire* and are good examples of experiencer verbs. *Mahara* is glossed as *to know, remember or think about*. *Hiahia* and *p̄irangi* did not occur in the actor emphatic construction whereas *mahara* did, 7 times.

kite(-a)

Kite, to see, patterns strongly as an experiencer verb with one notable exception being the fact that it takes *i* rather than *ki* to mark the theme. However it has a higher preference for the

suffixed form at 48.67%, than the mean preference for the experiencer category which is 19.84%. This is likely to be because the suffixed form, *kitea*, has an additional sense of *to find / to be found* which is in an inherently more transitive verb than *to see*. In fact one could suggest that the presence of the suffix allows or even motivates this more transitive interpretation. *Kite* was the most frequent verb in this study with 2760 verbal tokens in the DEWMC. It occurred in the actor emphatic construction 29 times. Although this is too many examples of the actor emphatic construction to discount as errors, nevertheless the actor emphatic construction accounts for only 1% of the verbal uses of *kite*. Example (94) shows an actor emphatic construction with *kite*.

- (94) Ka haere aua tāngata nā rāua i kite aua pae moenga manu,
 TAM go those people belong 3D TAM see those perch bed bird
 ‘Those people went. Those two saw those bird nests.’ (JPS0015)

titiro (tirohia)

Titiro is a verb of perception that translates as *to look*. It has an irregular suffixed form: *tirohia*. It occurs in the actor emphatic construction 30 times out of 774 un-suffixed tokens as exemplified in (95). It has a 22% preference for the p-construction and is otherwise a good member of the *experiencer* class.

- (95) Māu e titiro ēnei mea.
 Belong-2SG TAM look these thing
 ‘You will look at these things. (HK2)

mōhio (-tia)

Mōhio glosses as *to know* or *to understand*. It has a 25% preference for the p-construction. Out of a total of 992 un-suffixed tokens it occurs 6 times in the actor emphatic construction. This constitutes a very small percentage of the uses at 0.6%. All the examples of actor emphatic construction with *mōhio* are somewhat difficult to justify semantically (see example (96)) and do not constitute good examples of the actor emphatic construction.

- (96) Mā koutou e **mōhio** mai, heoi anō ka moe māua.,
 Belong 2PL TAM know TO1 so again TAM marry 1DEX
 ‘You (plural) will know why we got married.’ (W4)

4.6 Summary

The following conclusions can be drawn from the analysis done on the DEWMC.

- The p-construction occurs much more frequently than the a-construction in Māori in positions where there is a choice between the a-construction and the p-construction.
- The p-construction is significantly more strongly favoured for ‘canonical’ transitives than it is for ‘experiencer’ verbs.
- The category of experiencer verbs is problematic because there is no reliable test for membership but it is nevertheless an extant category.
- Some di-transitive verbs appear to be able to relativise directly on the ‘Pa’ noun phrase.
- The p-construction does not appear to strongly dis-prefer overtly expressing an agent.
- A-constructions with the perfective verbal particles *i* and *kua* are rare.

This chapter has presented the empirical results of this investigation. The following chapter will expand the discussion of these results and propose a hypothesis as to why the *a-construction* is used with Transitive verbs.

Chapter 5

Analysis

5.1 Introduction

The results of this study have shown that Transitive verbs constitute a separate class of verb from that of experiencer verbs with regard to the preference for the p-construction. The Transitive verbs in this study have an 86% preference for the p-construction while experiencer verbs have a 34% preference for the p-construction. The following discussion deals only with clauses involving *canonical transitive* and *di-transitive* verbs (referred to together in this thesis as *Transitive* verbs). The other category of two-participant verbs, that of *experiencer*, is considered to be a separate issue for the purposes of this discussion.

Given that lexically transitive verbs show such a strong preference for the p-construction, it would seem to make sense to focus on the function and motivation of a-constructions with these verbs. Therefore, this chapter will eventually addresses research question 4 (what conclusions about the nature of the p-construction in Māori can be drawn from the results of the analysis of the corpus?) by attempting to explain the use of the a-construction.

The *Transitivity/Accessibility Hypothesis* is proposed in section 5.2 . Section 5.3 discusses supporting evidence from the nature of the p-construction then 5.4 discusses the more passive-like uses of the p-construction. Section 5.5 deals with evidence that supports the TA hypothesis based on the nature of the a-construction.

5.2 The Transitivity/ Accessibility Hypothesis

A key feature of passivisation is that it reduces the transitivity of the construction, in the traditional sense of transitivity as a verbal property. If you accept the traditional grammatical analysis of the Māori passive, then this holds for Māori. That is, the direct object of the active clause is promoted to the subject of the passive clause and the underlying subject is moved into an oblique position. However there are two problems with this. The first is that the traditional grammatical analysis may be questionable¹ and therefore the grammatical roles of the constituent noun phrases are less clear. The second is that the transitivity of a p-construction in Māori, in the Hopper and Thompson sense, is not inherently reduced. In fact, based on both the corpus data and the observations of several scholars (Chung, 1978; Clark, 1976; Bauer et al., 1997), the Māori p-construction is most strongly preferred in clauses of high transitivity. The Hopper and Thompson sense of transitivity is henceforth to be assumed unless otherwise specified. The data from the DEWMC clearly shows that verbs that are lexically encoded for high transitivity strongly prefer the p-construction. The two most prominent proposals that have been made as to the motivation for the p-construction are: that it is used for the perfective aspect (Clark, 1976) and that it is used for affected direct objects (Chung, 1978). Both perfective-ness and affectedness of the direct object are features of high transitivity. As Bauer (1997, p. 482) observes, neither of these two factors alone account for all uses or non-uses of the p-construction.

I propose the following tentative analysis for clauses with Transitive verbs (that is, canonical transitive and di-transitive verbs):

A The p-construction is the normal construction for transitive sentences.

B The a-construction is used for syntactically motivated reasons to gain access to the ‘Aa’ noun phrase as a pivot e.g. topicalisation, focussing and equi-NP deletion in narrative and subordination.

C Otherwise, the a-construction serves to indicate low transitivity.

¹See section 2.8 and Bauer (1982) for a discussion of the idiosyncratic behaviour of the so-called direct object noun phrase with respect to relativisation.

These conditions do not account for every a-construction so the following caveats are included in the hypothesis.

- d** If a p-construction shows low transitivity then it may be better analysed as a passive construction. That is, a patient focussing or agent de-focussing construction.
- e** If an a-construction shows high transitivity then it may be an example of a change in progress.
- f** The statements A to E above describe strong tendencies rather than strict rules.

I will henceforth refer to this hypothesis as the TA hypothesis.

5.3 Features of the P-construction that Support the TA Hypothesis

There are a number of features of the p-construction that would indicate that its use is associated with the degree of transitivity of a clause. That is, that it designates a clause as more transitive than the notional corresponding a-construction.

5.3.1 Frequency and Markedness

The p-construction is the preferred construction for Transitive verbs. The p-construction is used in 86% of all of clauses, with Transitive verbs, where both a-constructions and p-constructions could have been used and 57% of all verbal clauses. There is some disagreement among scholars as to the significance of frequency of use when identifying the unmarked form. Chung (1977, p359) argues quite correctly that:

Logically, there is no reason to suppose that the choice of active or passive as basic should account for the frequencies of these constructions at all. Frequency is a question of usage; as such, it is independent of the identity of the basic transitive construction and its relationship to derived constructions, which are questions of structure.

Comrie (1988, p. 19) however considers that ‘sheer frequency’ is a valid measure of the markedness. He proposes four criteria for assessing markedness. They are: ‘raw frequency’, ‘formal complexity’ ‘degree of productivity’ and ‘discourse distribution’. The p-construction in Māori is undoubtedly unmarked with regard to ‘raw frequency’. It is marked with regard to ‘formal complexity’ because it is morphologically inflected.² It is totally productive for all verb types other than ‘state intransitives’ and ‘neuter’ (or ‘stative’) verbs. ‘State intransitives’ are the class of verbs in Māori that tend to be expressed as adjectives in English. It is likely, therefore, that they do not take the suffix as it is not semantically necessary or logical to do so. ‘Neuter’ or ‘stative’ verbs are (at least partially) defined by the fact that they do not take the suffix. Neuter verbs constitute a small closed class in Māori. The p-construction then, has a high degree of productivity in respect to the verbs that can use it. With regard to the discourse criteria, the Māori p-construction is not clearly restricted by any discourse factors. i.e. it can theoretically occur in any sentence or sentence position. However, there are a number of syntactic processes that require access to the \emptyset marked noun phrase. If the target or antecedent noun phrase is the agent, then the a-construction is often required.

So it can be seen that the markedness of the p-construction is not unequivocal by these criteria. Comrie (1988, p. 20) notes that “In some languages, however, the markedness criteria give less than clear results.”

Leaving aside the question of the markedness of the p-construction, there is no question that it is the *preferred* form.

5.3.2 The Transitive Imperative

The p-construction is mandatory for imperatives that involve a patient or patient-like entity and it is ungrammatical for imperatives that do not involve such an entity. In an imperative construction the suffix unequivocally denotes the presence of a patient or patient-like entity. When the patient is not overt, its existence is still entailed by the presence of the suffix on the verb. Examples (97), (98) and (99) show imperatives with an ‘action intransitive’ while (100),

²This is not the only feature of Māori grammar where the more basic form is the one which is more complexly marked. This is seen in the distinction between singular and plural in the determiners. These follow what Biggs (1998) calls the ‘t deletion’ rule whereby the initial ‘t’ of the singular form is deleted to form the plural e.g. ‘tēnei’ for ‘this’ versus ‘ \emptyset ēnei’ for ‘these’.

(101) and (102) show imperatives with a ‘canonical transitive’ (repeated from chapter 2).

(97) Kōrero mai!
speak TO1
‘Talk to me!’

(98) Kōrerotia he kōrero!
speak-CIA a story
‘Tell a story!’

(99) Kōrerotia!
speak-PASS
‘Say it!’

(100) Inumia te wai!
drink-CIA the water
‘Drink the water!’

(101) Inumia!
drink-CIA
‘Drink it!’

(102) E inu!
TAM drink
‘Drink!’

If an agent is expressed it takes the same form as it does with an ordinary p-construction as in (103).

(103) Inumia te wai e Roimata!
drink-CIA the water AGNT Roimata
‘Roimata must drink the water!’ or ‘Roimata! Drink the water!’

The presence of the suffix in other types of sentences (e.g. declarative) also entails the existence of a patient or patient-like entity as in (105) where the patient is not overtly expressed but is clearly understood.

(104) I ahatia te tama?
TAM what-CIA the boy
‘What happened to the boy?’

- (105) I ngaua e te kurī
 TAM bite-CIA AGT the dog
 ‘He (understood) was bitten by the dog.’ or ‘The dog bit him (understood).’

This behaviour of the transitive imperative supports point A of the TA hypothesis, i.e. one function the p-construction is to indicate transitivity. This does not imply that this is the only function of the p-construction.

5.3.3 Matrix Clauses with Two Overt Participants

The number of participants in a clause is an indicator of transitivity, where the presence of two or more participants denotes high transitivity. Māori can readily delete noun phrases in all sentence types so clauses with two overtly expressed arguments are relatively rare. For the purposes of expediency I will base most of the following discussion on examples of the very prototypical canonical transitive verb *patu(-a)*, to hit, beat or kill. There are 209 simple sentences where both the agent and the patient are overtly expressed. 24 or 11% of those are a-constructions. So it can be seen that the p-construction is strongly favoured for sentences with two overt arguments which is consistent with point A of the TA hypothesis.

5.3.4 Distribution with Respect to Aspect

Telic clauses are higher in transitivity than atelic clauses. There are two verbal particles in Māori that explicitly denote that a clause is telic. They are the simple past verbal marker *i* and the perfect verbal marker *kua*. As was noted in section 4.4, the p-construction accounts for 90% of all simple sentences introduced by the verbal particle ‘i’. Similarly, 89% of simple clauses with ‘kua’ are p-constructions. These percentages are similar to the overall preference for the p-construction for Transitive verbs. The verbal particle that occurs the most frequently is the ‘inceptive’ particle ‘ka’. Sentences with this particle are not specified for tense or aspect and the telicity of such sentences can only be derived, if at all from the context. Therefore, in order to look at aspect as a factor more thoroughly, a discourse based study would be necessary.

5.3.5 Action Intransitives

Lexically intransitive verbs of the type that Bauer (1997, p. 36) calls ‘action intransitives’ may take the suffix and therefore occur in p-constructions. Other types of intransitive verbs in Māori may not take the suffix. ‘Action intransitives’ occur very infrequently in p-constructions. For example, the verb *noho* which means *to sit, stay or live* occurs 4489 times in the DEWMC. 169 instances (or 4%) are suffixed.³ When these verbs do occur with the suffix they often take on a more transitive characteristic. The suffixed form, *nohoia*, often means *to settle* in the sense of colonise or occupy, which selects a patient noun phrase which could be said to be quite highly affected by the event as in (106). This contrasts with the less transitive clause in (107).

- (106) I te wā i **nohoia** ai te pā nei e Te Whiti i
 TAM the time TAM sit-CIA PART the village NEAR1 AGNT Te Whiti LOC
 Kerekere, i haere mai a Waitohi me ana hoa o Ngā Puhi ki te
 Kerekere TAM go TO1 PERS Waitohi with his-PL friend of Ngā Puhi COMP
 whawhai ki a Ngāti Awa.
 fight ACC PERS Ngāti Awa

‘At the time when this pā was occupied by Te Whiti at Kerere, Waitohi and his friends from Ngā Puhi came to fight with Ngāti Awa.(W10)

- (107) E noho ana rātou i Taranaki.
 TAM live TAM 3PL LOC Taranaki
 ‘They live in Taranaki.’

A second example is the ‘action intransitive’ verb *hoki* which means *to return* as in (108). There are 7302 tokens of the verb *hoki* in the DEWMC, 38 (or 0.5%) of which are suffixed. The suffixed form *hokia* makes the clause transitive as in (109).

- (108) Ka hoki mātou ki Taranaki.
 TAM return 1PLEX to Taranaki
 ‘We returned to Taranaki.’

³This is not calculated with the same degree of detail as the figures for the transitive verbs used in this study and is probably best compared to the numbers in column two of (4.3) which give the percentage of suffixed tokens out of the total number of verbal tokens.

- (109) Ka hokia mai anō ko te rākau mutu.
 TAM return-CIA TO1 again TOP the spear final
 ‘The final spear was returned again.’ or ‘He (assumed) returned the final spear again.’ (JPS0072)

So the p-construction is only used with the most transitive types of ‘intransitive verbs’ (those showing high kinesis) and often triggers a more transitive sense than the un-suffixed form.

5.3.6 Experiencer Verbs with Elevated Transitivity

As was discussed in section 4.5, certain *experiencer* verbs are sometimes able to appear in the actor emphatic construction despite the fact that this is semantically illogical. It was suggested that this was due to the ‘experiencer’ entity having a degree of volitionality over the action, or perhaps more accurately, the experience. Of the *experiencer* verbs that were counted, those that did occur in the actor emphatic construction also usually had a higher preference for the p-construction. This is not a strong piece of evidence and would need further investigation to be confirmed. As can be seen in table 5.1 the pattern is not unqualified.

Table 5.1: Experiencer Verbs, the Actor Emphatic and the Preference for the P-construction

Verb	Found in AE?	Number of times	Preference for the p-construction
kite	yes	36	49%
titiro	yes	30	22%
mōhio	yes	6	25%
mahara	yes	7	8%
pirangi	no	-	6%
hiahia	no	-	9%

According to Ota’s (2000, p. 164) analysis, experiencer verbs in Samoan and the other ergative Polynesian languages are *pseudotransitive* and only occur in pattern I. When experiencer verbs are used with the suffix they become fully transitive and appear in pattern II. This pattern is not totally clear in Māori but as was discussed in section 4.5.5 there is some indication that adding the suffix to an experiencer verb increases its transitivity.

5.3.7 Ergativity

The most controversial issue relating to the p-construction in Māori is the question of to what extent it is related to the ergative construction as seen in some other Polynesian languages. As was discussed in Chapter 2 some Polynesian languages (e.g. Samoan, Tongan and Niuean) have an ergative construction as their basic transitive construction whilst others (e.g. Hawaiian, Tahitian and Marquesan) have an accusative one. The p-construction in Māori looks suspiciously like the ergative construction of the first group apart from the fact that it almost always uses the suffixed form of the verb.⁴ The verb is usually un-suffixed in the unmarked construction of the ergative languages although some of them do have sentence types which pattern exactly like the Māori p-construction (Clark, 1973b). This similarity exists regardless of where you stand on the issue of the case marking system of Proto Polynesian. The Māori p-construction is usually analysed alternatively as: either an example of a ‘passive’ construction that is being reanalysed as an ergative construction (Chung, 1977; Hohepa, 1969), or as an example of an ‘ergative’ construction that is being reanalysed as a ‘passive’ construction (Clark, 1976; Ota, 2000). Either way, the p-construction in Māori is not a prototypical ‘passive’ nor is it clearly a straight forward ergative construction. What is likely is that it is a relative of the ergative (pattern II) construction in other Polynesian languages. This construction is the basic unmarked construction for clauses with canonical transitive verbs in all the so-called ergative languages in the Polynesian family. Whether or not the p-construction in Māori is becoming more or less like this type of ergative construction it still strongly resembles it in the DEWMC.

5.3.8 The Historical Role of the CIA Suffix as a Marker of Transitivity

Bauer (1997, p. 539) has this to say about the relationship between the p-construction in Māori and the ergative construction of the ergative Polynesian languages.

The widespread use of the passive in Māori narrative is probably related to - because derived in part from - its function in these other languages. The use of the passive in Māori for past strongly transitive actions can be seen as a reflection of the fact that

⁴There is a small group of verbs in Māori that always pattern with the case marking system of the p-construction but do not (usually) have a suffix. They include *hoatu*, *hōmai* and *waiho*.

the suffix historically was used to mark an increase in transitivity.

The historical use that Bauer refers to here is that of the so called ‘transitive suffix’ of Proto Eastern Oceanic. This suffix took the same phonological form as the Māori suffix and was used to indicate the presence of a ‘specific object’ (Clark, 1973b, p. 564). According to Ota, (2000, p. 174) in the contemporary ergative languages of the Polynesian family:

-*Cia* transitivizes intransitive verbs, including what are referred to as pseudotransitive⁵ verbs, and increases the semantic degree of transitivity of true-transitive⁶ verbs. In each case, the affixation indicates a heightened degree of transitivity compared to that of the unaffixed plain form.

It is possible that the CIA suffix in Māori is a relic of this transitivising suffix of Proto Eastern Oceanic.

5.4 Genuinely Passive-like uses of the P-construction

Point **d** of the TA hypothesis acknowledges the existence of uses of the p-construction that are much closer to that of a prototypical passive. However, it is difficult to confidently identify the truly passive uses of the p-construction largely because of the way that all types of noun phrase are frequently deleted in Māori. This often results in English glosses that are passive because subject-less sentences are unacceptable in English. Example (110) shows a sentence where the agent of the matrix clause and the patient of the subordinate clause are both unrealised.

(110) Ka whakataua kia whakahaerea e ia i raro i tēnei ture.
TAM decide-CIA TAM CAUSE-go-CIA AGNT 3SG LOC under LOC this law
‘It is decided that it should be run by him under this law.’

or: ‘It is decided that he should run it under this law.’

or: ‘(The governor) decided that he (the person who has been chosen by the governor for this job) should do that job in accordance with the law.’ (LG)

The first two glosses attempt a translation based on the information that is explicitly realised in the sentence. This forces the use of the rather awkward first passive phrase, ‘It is decided

⁵The class referred to in this thesis as *experiencer* verbs.

⁶*Canonical* transitives

that’. The third version, which is active, retrieves the missing information from earlier and is probably a better translation.

Example (111) shows a likely candidate for a more passive-like p-construction with a canonical transitive. The phrase in question, in bold, is p-construction, with the verb *patua*. There are three passive clauses in the English gloss of this example but only the third involves a p-construction. The first, ‘the people should be killed’, glosses a VMI clause with *patu* and the second, ‘the land can be taken’, glosses an s-construction clause with the neuter verb *riro*, *to be taken*.

- (111) Ka mea: “Me patu tēnei iwi, kia riro ai tēnei motu ki tō tātou
 TAM say TAM kill this people TAM be-taken PART this island AGNT of 1PINC
 Kuini ki a Ihapera.” Hoi **patua iho tāu iwi kiri mangu** ka
 Queen AGNT PERS Isabella, thus kill-CIA DN1 of-2SG people skin black TAM
 mate.
 die

‘(They) said: “This people should be killed so that this land can be taken by our Queen by Isabella.” Thus **their black skinned people were killed** dead.’ (HK3)

This passage is taken from an article in Te Hokiōi (New Zealand Digital Library Project, 2007) which discusses the colonisation of Haiti, first by the Spanish and then by the French. The topic of this section is what happened to the *iwi kiri mangu* or *black skinned people*.⁷ Even if this is an example of an agent de-focussing passive, it still shows quite high transitivity. The clause has every feature of high transitivity apart from that of having two participants.

I would speculate that p-constructions with experiencer verbs have a greater potential to be genuinely passive as in (112).

- (112) E kore e taea e te tangata kotahi **ngā mea katoa e**
 TAM not TAM reach-CIA AGNT the person one the-PL thing all TAM
hiahiatia ana.
 desire-CIA TAM
 ‘It is not possible for one person alone to achieve all the things that are desired.’ (LG)

Just how well the more passive-like p-constructions in Māori meet the criteria for prototypical passives as well as how often these types of construction occur is a matter for further research.

⁷This refers to the indigenous people, not the African slaves who appear next in the story.

5.5 Features of the A-construction that Support the TA Hypothesis

I will now turn to the a-construction.

5.5.1 Grammatical Restrictions

Grammatical restrictions account for the majority of uses of the a-constructions in Māori. As was discussed in Chapter 3 the verbs used for this study were categorised according to what type of construction they appeared in. Examples and explanations of these categories are covered in section 3.4. Figure 5.1 shows the distribution of the verbs by clause type, excluding any non-verbal uses.⁸

The first three categories, **VA**, **VISAWTHAT** and **VRC** are the only ones where there was potentially a choice between the a-construction and the p-construction. I will refer to these three categories collectively as the ‘viable’ categories. The other categories all proscribe the use of the p-construction and these will be referred to as ‘un-viable’. The un-viable categories are: **VAIM**, **VAFA**, **VKTC**, **VIO**, **VKTCIO**, **VAE**, **VAERC**, **VMI**, and **PP** and the reasons for their un-viability are discussed below.

VAIM - Intransitive imperative

The un-suffixed intransitive imperative is in complementary distribution with the suffixed transitive imperative as has already been discussed in detail. All imperative clauses were excluded from this analysis on the grounds that the reason for the choice between the suffixed and un-suffixed was already explained.

VAFA- fronted agent and VKTC- ‘ki te’ complement with regard to the \emptyset noun phrase

These two clause types both require the a-construction because they need the agent noun phrase to be in the \emptyset marked case. This case is traditionally considered to be the ‘nominative’ or ‘subject’

⁸Figure 5.1 includes the data for the *experienter* verbs but they are not under discussion in this section.

Verb	<VA>	<VISA/THAT>	<VRC>	Total Viable for 'p'	<VAE>	<VAERC>	<VAFA>	<VI>	<VAIM>	<VMI>	<PP>	<VKTC>	<VKTCIO>	<VIO>	Total not viable for 'p'
patu (-a)	52	0	24	76	115	38	77	57	3	26	20	136	41	26	539
whawhai (-tia)	39	0	2	41	4	0	14	85	0	3	2	83	0	0	191
āwhina (-tia)	8	0	1	9	6	0	14	6	0	6	0	5	0	0	37
whāngai (-a, -tia)	11	0	1	12	3	3	3	6	0	1	2	5	0	5	28
takahi (-a)	14	0	0	14	8	3	11	13	0	0	1	6	3	0	45
kohi/kohikohi (-a)	10	0	3	13	6	0	2	4	0	4	6	5	11	7	45
tuhi (-a)	8	3	3	14	15	1	14	24	5	16	7	5	0	9	96
whakatau (-a, -kia, -	6	3	2	11	10	0	11	10	0	3	0	18	1	2	55
whakatū (-ria)	5	1	7	13	9	1	8	8	1	12	1	9	8	7	64
kōhuru (-tia)	6	0	4	10	10	3	3	2	0	2	20	9	0	1	50
tono (-a)	77	116	23	216	27	3	15	6	0	12	7	19	5	10	104
tuku (-a, -na)	68	16	20	104	47	10	24	32	1	70	24	42	9	37	296
tiki (-na)	3	0	3	6	62	10	7	11	0	16	11	136	76	3	332
kawe (-a)	2	1	2	5	61	7	26	35	2	21	1	53	32	9	247
kite (-a)	900	195	59	1154	29	7	252	205	2	4	3	0	0	14	516
tītiro (tirohia)	236	96	5	337	30	0	53	174	85	27	4	55	6	6	440
mōhio (-tia, -hia)	186	486	37	709	4	2	155	116	1	5	5	0	0	0	288
mahara (-tia)	57	235	14	306	7	0	9	33	3	7	1	0	0	0	60
pīrangī (-tia, -hia)	10	4	1	15	0	0	0	2	0	0	1	0	0	0	3
hiahia (-tia)	25	276	36	337	0	0	13	4	0	0	0	0	0	0	17
TOTAL	1723	1432	247	3402	453	88	711	833	103	235	116	586	192	136	3453

Figure 5.1: Distribution of the un-suffixed verbs by clause type c.f. section 3.4 for an explanation of the tags.

case but I will avoid these terms because they are problematic when discussing languages that show ergativity.

VAFa - a-construction with a fronted agent

As was defined in Chapter 3, the VAFa category includes any a-construction where the agent noun phrase precedes the verb phrase. The p-construction cannot front the agent noun phrase, therefore, if the constituent to be fronted is an A noun phrase, the a-construction must be used as in (113). Conversely, if the constituent to be fronted is the P noun phrase then the p-construction must be used as in (116). These examples are both relative clauses.

- (113) Ko te iwi e **patu** rā i a Tamaweti, ko Rongowhakaata.
TOP the people TAM kill DIST ACC PERS Tamamweti, SPEC Rongowhakaata
'The people who killed Tamaweti were Rongowahaata.'(W10)

Examples (114) and (115) are the underlying sentences for (113).

- (114) Ka patu te iwi i a Tamaweti.
TAM kill the people ACC PERS Tamaweti
'The people (tribe) killed Tamaweti.'(W10)

- (115) Ko Rongowhakaata te iwi.
EQ Rongowhakaata the people
'The people (tribe) are Rongowhakaata.'

- (116) Ko ngā upoko o ngā mea i **patua** i hoatu ki runga ki ngā
TOP the-PL head of the-Pl thing TAM kill-CIA TAM give LOC up LOC the-PL
pou tū ai.
post stand PART
'The heads of those who were killed were given away and displayed up on the poles.'
(W10)

VKTC- ‘ki te’ complement

The VKTC tag marks verbs that occur in infinitive complement clauses. These clauses must have the same referent in the \emptyset noun phrase as the matrix clause. Suffixed verbs are not permitted in the subordinate clause. This is once again motivated by needing to have the agent in the \emptyset position.

- (117) I haere mai au **ki te kawe** mai i ngā kupu a te rima rau
TAM go TO1 1SG COMP convey TO1 ACC the-PL word of the five hundred
me kāti te rori.
TAM stop the road
‘I came here to convey the words of the 500 people (who say) “stop the road.” ’ (HK1)

- (118) I haere mai **au**
TAM go TO1 1SG
‘I came here.’

- (119) Ka kawe mai **au** i ngā kupu a te rima rau me kāti te rori.
TAM convey TO1 1SG ACC the-PL word of the five hundred TAM stop the road
‘I conveyed the words of the 500 (who say) “stop the road.” ’

Example (117) shows an example of this clause type while (118) and (119) show the underlying clauses with the co-referential \emptyset noun phrase in bold. The infinitive nature of ‘*ki te*’ complement clauses reduces the transitivity of such clauses.

VIO - incorporated ‘object’

There is a type of noun incorporation commonly called object incorporation that is highly productive in Māori. In this type of construction the patient argument of a verb is merged with the verb to form a compound. In this process the need for case marking is nullified as the new form of the verb conveys all the necessary relational information. Example (120) shows an example of a VIO clause while (121) and (122) show that the same general information could have been conveyed using either the a-construction or the p-construction. Example (123) shows that this construction is unacceptable if the suffix is used.

- (120) Kātahi ka **tono kai** mā rāua.
 then TAM request food for 3D
 ‘Then he (assumed) requested food for the two of them.’ lit: ‘Then (he) “food-requested” for them.’ (JPS021)
- (121) Kātahi ka tono ia i ētahi **kai** mā rāua.
 Then TAM request 3SG ACC some food for 3D
 ‘Then he requested some food for for them.’
- (122) Kātahi ka tonoa ētahi kai mā rāua.
 Then TAM request-CIA some food for 3D
 ‘Then he requested some food for for them.’ or ‘Then, some food was requested for them.’
- (123) *Kātahi ka **tonoa** ∅ **kai** mā rāua.
 Then TAM request-CIA ∅ food for 3D
 ‘Then he requested food for for them.’

Hopper and Thompson (1980, p. 257) consider this type of construction to be low in transitivity because the patient has very low individuation. In that regard the lack of suffix on the verb in these constructions in Māori is consistent with marking low transitivity. This type of clause was not included in the calculation as it is essentially intransitive and does not have properties of either the a-construction or the p-construction. Therefore the VIO clause type is not a viable position for the suffixed verb due to both grammatical reasons and because it is low in transitivity.

VKTCIO- ‘ki te’ complement with an incorporated object

This clause type is really just a subtype of VIO and requires no further explanation. One point of interest is that object incorporation is particularly common in ‘*ki te*’ complements (Bauer et al., 1997, p. 315). In the DEWMC, every verb that was tagged except *tuku*, had more VKTCIO clauses than VIO clauses. This further indicates that VKTC clauses show a degree of reduced transitivity.

5.5.2 The Constructions that Show ‘Ergative Traces’

The issue of ergative traces in Māori was discussed in section 2.7. Along with the p-construction, the *actor emphatic* (VAE), *‘me’ imperative* (VMI), *pseudo passive* (PP) and ‘stative’ (‘s’) constructions all show ‘ergative traces’ (Bauer et al., 1997, p. 537). In all of these constructions the P noun phrase is \emptyset marked. In the a-construction it is the A noun phrase which is \emptyset marked. The S noun phrase (where applicable) is always \emptyset marked.⁹ All these clause types apart from the actor emphatic also share the feature that the A noun phrase *can* be introduced by the preposition *e*. It is not usually introduced with *e* in the s-construction but it can be as in (124).

- (124) Kua riro te whenua e te Kāwanatanga.
 TAM be-taken the land AGNT the government
 ‘The land had been taken by the Government.’

All these constructions also permit the indefinite article ‘*he*’ in the P position which the a-construction does not. The suffixed form of the verb is not permitted in any of these constructions (other than the p-construction itself). The s-construction was not considered in this study as it is used with a closed class of verbs that cannot take the suffix. The *actor emphatic*, *pseudo passive* and *me imperative* constructions are also *non ‘a’ non ‘p’*, specialised constructions and are therefore considered un-viable for the p-construction.

Table 5.2: The case marking of the ‘ergative trace’ constructions compared to the a-construction

Name	Agent NP marker	P NP marker	Pattern
a-construction	\emptyset	i or ki	I
p-construction	e	\emptyset	II
s-construction	i or e	\emptyset	II
Actor Emphatic	nā or mā	\emptyset	-
Pseudo Passive	e or nā	\emptyset	II
Me imperative	e or \emptyset	\emptyset or i	II or I

⁹I do not analyse the single (*e* marked) overt noun phrase of a p-construction which has no overt P, as an S, because the patient is extant it is just unrealised.

VAE -Actor emphatic

The actor emphatic is exemplified below in (125). It does not exhibit the case marking pattern of either pattern I or pattern II.

- (125) Nā rātou i whakatū ngā kaitiaki.
of 3PL TAM appoint the-PL guardian
'They appointed the guardians.' (MAT1)

This construction has attracted much scholarly attention and is generally considered to be derived from a possessive construction (Bauer et al., 1997; Clark, 1976). The agent phrase is always in the sentence initial position but the verb phrase and the patient noun phrase may occur in either of the next two positions. The patient noun phrase is \emptyset marked, as with the other constructions in this section, but the agent is not marked by 'e'. The verb never takes the suffix in the actor emphatic construction. As the name would suggest, this sentence type serves to emphasise the agent.

VAERC - Actor emphatic relative clause

The VAERC is a relative clause which has the agent phrase of an actor emphatic construction as its head. Therefore the same restrictions that apply to an ordinary actor emphatic apply to this type of clause.

VMI 'me' imperative

This construction is a type of imperative and is therefore excluded from the calculation as are all other imperative clauses. An interesting feature of 'me' imperative is that it may exhibit the case marking pattern of either a p-construction or an a-construction. When it takes the form of a p-construction, as in (126) and (127), the verb does not appear with the suffix.¹⁰

- (126) Me hanga e te Kōti \emptyset tētahi ōta whakamana i taua mea.
TAM build AGNT the court \emptyset a order authorise ACC that thing
'The Court should make an order that authorises that thing.' (LG)

¹⁰This is said to be changing in modern Māori (Bauer et al., 1997, p. 99). However, there is only one example of a suffixed verb occurring in a VMI phrase in the verbs analysed in the DEWMC and I consider that this form was not grammatical at this time.

- (127) Me patu tonu atu e au ∅ ō tungāne.
 TAM kill still AWAY AGNT 1SG ∅ your-PL brothers
 ‘I should still kill your brothers.’ (JPS0024)

Example (128) shows two VMI phrases which use the a-construction type case marking.

- (128) Me āta tiro tiro te Whare ki tēnei Pire, me āta whakaaro i te
 TAM carefully look the House ACC this bill TAM carefully think ACC the
 tono a Te Arawa.
 request of Te Arawa

‘The house should look carefully at this bill and should think carefully about Te Arawa’s request.’ (LG)

It also occasionally shows mixed case marking as in: (129) and (130).

- (129) Me hanga e koe i tētahi tiki.
 TAM build AGNT 2SG ACC a carved figure
 ‘You should build a carved figure.’ (W10)

- (130) Me homai hoki e koe i ngā utu o Kawia, o Waitohu hoki.
 TAM give also AGNT 2SG ACC the-PL payment of Kawia of Waitohu also
 ‘You should also give the payment of Kawia and of Waitohu as well.’ (MAC5255)

I do not consider that this VMI clause proscribes the p-construction but rather that it proscribes the suffix. Sentences such as (126) clearly show the case marking pattern of a p-construction. Further discussion about this clause type is outside the scope of this study but it would be an interesting matter to investigate. Especially with regard to the ergative-accusative / accusative-ergative question.

PP - pseudo passive

This construction is alternatively known as the *pseudo passive* or the ‘*he mea*’ cleft. It is a nominal construction and for that reason it is not considered at all in the calculation. When an agent is expressed it is either introduced with ‘e’ as in (131) or with ‘nā/ō’ as in (132).

(131) Ko Po-kere hoki he mea kōhuru anō e Ngā Puhi.
 TOP Po-kere also a thing murder another AGNT Ngā Puhi
 ‘Po-kere was also another one who was murdered by Ngā Puhi.’ (W5)

(132) He mea kōhuru hoki nā koutou a Kurahoupō.
 a thing murder also by 2PL PERS Kurahoupō
 ‘Kurahoupō was also one who was murdered by you.’ (JPS004)

5.5.3 The Types of Clauses where Both A-constructions and P-constructions are Possible

In the DEWMC I have identified three clause types where un-suffixed verbs occur where a suffixed verb would clearly have been permitted. They are VA, VRC and VISAWTHAT. I will now discuss each clause type.

VRC - Non-agent relative clause

The VRC category covers all the relative clauses that are not VAFA, or VAERC. The label therefore encompasses any relative clauses on the ‘Pa’ noun phrase and any relative clauses on oblique noun phrases.

Relatives clauses with patient noun phrase heads

The ‘Pa’ headed relative clauses are all positions where the p-construction could (grammatically speaking) have been used. Using the p-construction to relativise on the ‘Pa’ noun phrase is one of the three strategies theoretically available for relativising on the ‘Pa’ noun phrase of canonical transitive verbs. The other two are known as the ‘possessive relative’ strategy and the ‘actor emphatic’ strategy.

Example (133) shows a relative clause which relativises on the so-called ‘direct object’ or ‘Pa’ noun phrase using the ‘possessive relative strategy’. This sentence could have been expressed using the p-construction as in (134). However, the use of an a-construction is not acceptable as in (135).

- (133) Ko Taranaki rāua ko Ngāti Ruanui ngā iwi i tae tuatahi atu
 TOP Taranaki 3DL TOP Ngāti Ruanui the-PL people TAM reach first away
 ngā kara. Ko **tā rātou tohu i whakatū ai** i mua hei tohu
 the-PL flag TOP of 3PL sign TAM establish PART LOC front TAM sign
 pupuru i Taranaki, he whare nui.
 memorial LOC Taranaki a house big

‘Taranaki and Ngāti Ruanui were the first peoples to reach the flags. The symbol that they established in front as a memorial in Taranaki was a wharenuī.’¹¹ (HK1)

- (134) Ko **te tohu i whakatūria e rātou** i mua hei tohu pupuru
 TOP the sign TAM establish-CIA AGNT 3PL LOC FRONT TAM sign memorial
 i Taranaki, he whare nui.
 LOC Taranaki a house big
 ‘The symbol that they established as a memorial in Taranaki was a wharenuī.’

- (135) *Ko te tohu i whakatū ai rātou he whare nui.
 TOP the sign TAM establish PART 3PL EXT house big
 ‘The symbol that they established as a memorial in Taranaki was a wharenuī.’

Example (136) shows an ‘actor emphatic’ strategy while (137) shows the equivalent using the p-construction.

- (136) Ko ētahi karāti **nā nga Māori anō i tonono** kia takirua ki
 TOP some grant of the-PL Māori people REFLEX TAM request TAM pair LOC
 roto ki te mea kotahi.
 inside LOC the thing one

‘Some of the grants have been requested by the Māori people to be done in pairs within each single one.’ (LG)

Example (136) could be expressed with a p-construction as in (137) below.

- (137) Ko ētahi karāti **i tonono e nga Māori anō** kia
 TOP some grant TAM request-CIA AGNT the-PL Māori people RELEX TAM
 takirua ki roto ki te mea kotahi.
 pair LOC inside LOC the thing one

‘Some of the grants have been requested by the Māori people to be done in pairs within each single one.’

¹¹ Another name for a wharehui or meeting house.

Despite the fact that di-transitives appear to be able to relativise ‘directly’ on the ‘Pa’ noun phrase, examples from the DEWMC confirm that they permit the other strategies usually utilised by *canonical transitives*, to relativise on the ‘Pa’ noun phrase as well. Example (136) shows an Pa headed relative clause using the ‘actor emphatic’ strategy while (138) shows an example of the p-construction strategy with a di-transitive verb.

- (138) Ko te mea e **tonoa** nei e ia he mea iti noa iho.
 TOP the thing TAM send-CIA TO1 AGNT 3SG a thing small FREELY DN1
 ‘The thing he sent is merely a small inconsequential thing.’ (LG)

Therefore it would seem that all the examples of relative clauses headed by the ‘Pa’ noun phrase (those tagged VRC) should have been able to have been expressed as a p-construction. Bauer (1982, p. 315) suggests that:

The choice between the three strategies discussed for DOs¹² of canonical transitives appears to be determined by factors which might loosely be termed “stylistic” - they include emphasis, focusing, rhythm and euphony.

The p-construction is the preferred strategy for relativising on the patient noun phrase. Of the 137 patient headed relative clauses with the verb *patu-a*, 114 utilised the p-construction strategy, (cf. e.g. (137)) 16 employed the ‘possessive relative’ (cf. e.g. (133)) and 7 used the ‘actor emphatic’. (cf. e.g. (136)) strategy.

The p-construction strategy is neutral as far as emphasis or focusing is concerned. If the p-construction is the basic transitive clause, then this type of relative clause is the most simple. There are 115 relative clauses with the agent noun phrase as the head for *patu* while there are 137 relative clauses with the patient noun phrase. The purpose of a relative clause is to provide further information about its head noun phrase, therefore, that noun phrase is naturally in focus. Thus the natural focus of a relative clause on the patient noun phrase is the patient. I suggest that the ‘possessive relative’ strategy serves to individuate the agent. The ‘actor emphatic’ strategy, unsurprisingly, emphasises the agent along with the action. Thus the p-construction

¹²As noted in chapter 2 Bauer uses the traditional case analysis. The DO is the ‘Pa’ noun phrase according to the terminology used in this thesis

strategy is the default while the other two are used when special emphasis is required. The three variations are demonstrated below for the underlying clauses that are shown in (139). The noun phrase in bold is the Pa that is relativised on. Example (140) shows a p-construction, (141) a ‘possessive relative’ and (142) an ‘actor emphatic’ strategy. This semantic analysis is somewhat tentative and could do with further investigation.

- (139) Ka kohete a Waiora i **te tamaiti**.
 TAM scold PERS Waiora ACC the child
 ‘Waiora scolded the child.’

Ka hoki atu **te tamaiti**.
 TAM return AWAY the child

‘The child returned.’

- (140) Ka hoki atu te tamaiti i kohetetia e Waiora.
 TAM return AWAY the child TAM scold-CIA AGNT Waiora
 ‘The boy who Waiora scolded went back.’

- (141) Ka hoki atu te tamaiti a Waiora i kohete ai.
 TAM return AWAY the child of Waiora TAM scold PART
 ‘The boy that **Waiora** scolded went back.’

- (142) Ka hoki atu te tamaiti nā Waiora i kohete.
 TAM return AWAY the child by Waiora TAM scold
 ‘The boy **that Waiora scolded** went back.’

Relatives clauses with oblique noun phrase heads

Once again using the data for *patu(-a)*, in examples where the relative clause had an oblique noun phrase as its head, 5 were a-constructions and 68 were p-constructions. Of the 5 a-construction type relative clauses 4 relativised on ‘reason’ noun phrases and 1 relativised on a ‘time’ location

phrase. There are 38 ‘location’ relative clauses that occur with the p-construction and 24 ‘reason’ headed relative clauses while the remaining 6 relativise on ‘instrument’ noun phrases.

It would appear that when the a-construction is used for a reason headed relative clause it serves to front, and therefore focus, the agent as in (143). Compare this to (144) which uses the p-construction to describe a very similar situation but is verb initial. All the examples of relative clauses of reason that use the a-construction have fronted the agent noun phrase.

- (143) Koia taua iwi rā i patu ai i a Rangi-wehe-kura, te
 REASON that people DIST TAM kill PART ACC PERS Rangi-wehe-kura the
 wahine a Hau-pokia.
 wife of Hau-pokia
 ‘That is why that iwi killed Rangi-wehe-kure who is Hau-pokia’s wife.’ (W10)

- (144) Koia i patua ai e Ngāti Maru aua pā nei a
 REASON TAM kill-CIA PART AGNT Ngāti Maru that village NEAR1 PERS
 Mau-inaina.
 Mau-inaina
 ‘That is why Ngāti Maru beat this village, Mau-inaina.’ (w5)

As there is only one example of a location relative clause that uses an a-construction, it is not possible to make any confident suggestion as to the why it is used. I suspect that a similar process as that suggested for the reason headed relative clauses might go some way towards explaining it. As can be seen from (145) the agent phrase occurs before the patient phrase, whereas in (146) and (147) the patient phrase occurs first. Example (147) differs from the two preceding examples as it shows a relative clause with a ‘location in space’ as its head. It is possible that the issue of topic is important here and I would suggest further investigation in this area.

- (145) I te wā i patu ai a Taminatimina i a Mere, mangu katoa
 LOC the time TAM kill PART PERS Taminatimina ACC PERS Mere black all
 te wai o te awa, pōuri kerekere.
 the water of the river dark dark
 ‘At the time when Taminatimina killed Mere, the water of the river was completely black and dark.’ (JPS0078)

- (146) I te wā e patua rā a Tama e taua pouwaru, ka tangi
 LOC the time TAM kill-CIA DIST PERS Tama AGNT that widow TAM cry
 ka auē tāna wahine, ā tahuti ana a ia.
 TAM lament his wife and flee TAM PERS 3SG

‘At the time when Tama was killed by that widow, his wife cried and lamented and she fled.’ (W6)

- (147) Ko te wāhi i patua ai ngā mataora i pahemo ai taua pā
 TOP the place TAM kill-CIA PART the-PL living TAM pass by PART that village
 nei, e mau tonu mai nei anō i ēnei rā i ngā pari i
 NEAR1 TAM hold still TO1 NEAR1 again LOC these day LOC the-PL cliff LOC
 Patea.
 Paeta

‘The place where the survivors were killed, that village was passed over, these days it is still held at the cliffs at Patea.’ (W8)

To summarise the issues relating to the VRC category: The p-construction is preferred for relative clauses headed by non-agent noun phrases and the other types of relativisation strategies are used for pragmatic reasons. This is consistent with what is predicted by the TA hypothesis point B.

VISAWTHAT - verbs with \emptyset marked clausal complements

The VISAWTHAT tag describes a complex sentence where the matrix verb (the one that is tagged) has a full clause as its P argument. The subordinate clauses are usually verbal but they may also be nominal. These clause types are not typically found with canonical transitives. There are 140 examples of VISAWTHAT clauses with Transitive¹³ verbs in the DEWMC and 117 of those are for the di-transitive *tono*.¹⁴ There are no examples for *patu* (-a), *kōhuru* (-tia), *takahi* (-a), *kohi* / *kohikohi* (-a), *whāngai* (-a, -tia), *āwhina* (-tia), *tiki* (-na) or *whawhai* (-tia). The verbs that do have VISAWTHAT clauses are: *Whakatū*, (1 example) *whakatau* (4 examples) *tuhi*, (3 examples), *kawe* (1 example), *tuku* (16 examples) and *tono* (117 examples). It is tempting to analyse this type of construction as intransitive and exclude it from the calculation. However, this is problematic for two reasons. Firstly, most of these examples quite clearly have a

¹³When the term ‘Transitive’ is used with a capital ‘T’ it includes both canonical and di-transitives.

¹⁴See section 4.5.3 for a discussion on *tono*.

patient argument in the form of a full clause. Secondly, there are a large number of examples of this type of construction where the matrix verb is suffixed. Given my assertion that the presence of the suffix entails transitivity, these clauses must be transitive.

All the examples of sentences using Transitive verbs with a clausal patient argument (tagged as VISAWHTAT) concern acts of communication. Bauer (1997, p. 609) has described how the VISAWTHAT type of construction is used with communication verbs and for reported speech in particular. I would suggest that the reason these examples of Transitive verbs in VISAWTHAT clauses are permissible is that they are utilising the construction that is used for reported speech. This does not however, explain the choice between the suffixed and the un-suffixed forms.

The following examples show two very similar situations but in (148) the a-construction is used while in (149) the p-construction is used.

(148) Kāore ahau i **tuhi** atu [kia haere mai ki te tango whenua.]
 NOT 1SG TAM write AWAY TAM go TO1 COMP take land
 ‘I did not write that (you) should come here to take land.’ (MAC5052)

(149) Ka **tuhia** atu e au [kia whakahokia mai ko ngā toru
 TAM write-CIA AWAY AGNT 1SG TAM CAUSE-return-CIA TO1 TOP the-PL three
 tekau pāuna] kia whakakāhoretia.
 ten pound TAM CAUSE-not-CIA
 ‘I write that the 30 pounds be returned here to be cancelled.’ (MAC5257)

Examples (150) and (151) show a similar pair with the verb *tono*. Note that this is a not ‘di-transitive’ sentence as it only had two participants. None of the VISAWTHAT examples with *tono* or *tuku* have three participants.

(150) I **tono** ngā Māori **kia** whakaotia e tēnei
 TAM request the-Pl Māori people TAM CAUSE-complete-CIA AGNT this
 Kāwanatanga tēnei mea.
 government this thing
 ‘The Māori people requested that this government finalise this matter.’ (LG)

- (151) Ka **tonoa** e ia **kia** haere te tangata rā ki te tiki i tōna
 TAM request-CIA AGNT 3SG TAM go the man DIST COMP collect ACC his
 tuahine.
 sister
 ‘He requested that the man collect his sister.’ (NMNT)

Examples (152) and (153) show similar contrasting sentences with the verb *whakatau*.

- (152) Ka **whakatau** a Tama **kia** rite tana āhua ki taua kōtuku.
 TAM decide PERS Tama TAM same his appearance to that heron
 ‘Tama decided to make his appearance the same as that of that heron.’ (W2)

- (153) Ka **whakataua** **kia** whakahaerea e ia i raro i tēnei ture.
 TAM decide-CIA TAM CAUSE-go-CIA AGNT 3SG LOC under LOC this law
 ‘(The governor) decided that he (the person who has been chosen for this job) should
 run it under this law’ (LG)

To summarise, clausal patient complements do not occur with prototypical Transitive verbs. When they do occur with Transitive verbs it is because the verb in question is acting as a speech verb. Speech verbs or verbs of communication may constitute a special category of construction in Māori and I would suggest that further study is required to establish their status with regard to the existing categories of verb classification. I am not able to say anything conclusive about what the difference between the a-construction and the p-construction variations of the VISAWTHAT construction might be, as there were not enough examples in the DEWMC.

VA - Simple a-construction

The verbs that were tagged with VA occur in simple sentences with the constituent order of: verb → agent → patient. VA clauses make up 12% of the a-constructions for Transitive verbs and are the most viable of all the viable positions. In other words, they are not as easily accounted for as all the other types of a-constructions.

I propose that any VA clauses with pronominalised or \emptyset agent noun phrases serve to signify the continuing topic status of the agent. Just over half of the VA clauses with *patu* had the \emptyset marked agent noun phrase deleted as in (154).

- (154) Ka tae mai a Whatitiri, ka **patu** \emptyset i tētahi o ōna tāngata; ko
 TAM reach TO1 PERS Whatitiri TAM kill \emptyset ACC one of his-PL people SPEC
 tētahi ka waiho kia ora ana.
 one TAM leave TAM live TAM
 ‘Whatitiri arrived here, killed one of his people and left one to live.’ (W1)

The reason the a-construction is used in these types of examples is that the agent is known and it is the ‘continuing topic’ and as such, can be deleted. Therefore any VA clauses without overt agent noun phrases are accounted for by this explanation. Figure 5.3 shows the distribution of the types of agent phrases in VA clauses for all the Transitive verbs.

Table 5.3: The distribution of VA clauses with Transitive verbs with respect to the Expression of the Agent

Verb	Total VA Clauses	Overt Agent	\emptyset Agent	Pronoun Agent	Full NP Agent
āwhina	8	7	1	4	3
kohi	10	2	8	1	1
kōhuru	6	3	3	1	2
patu	53	24	29	15	9
takahi	14	9	5	3	6
tuhi	8	4	4	2	2
whakatau	6	1	5	0	1
whakatū	4	2	2	1	1
whāngai	11	0	11	0	0
whawhai	39	25	14	6	19
kawe	2	0	2	0	0
tiki	3	0	3	0	0
tono	77	58	19	44	14
tuku	68	16	52	11	5
TOTAL	309	151	157	88	63

2% of all a-constructions in the DEWMC with Transitive verbs are VA clauses with full noun phrase agents. 20% of all VA clauses with Transitive verbs have full noun phrase agents. This type of clause is clearly very rare. For the verb *patu* there are 23 VA clauses with overt agents. 15 of these had pronouns in the agent position. This naturally means that they stand for a noun phrase that is already known and also indicates the ‘continuing topic’ status of the agent. Therefore, VA clauses with no overt agent or with pro-nominalised agents are explained by the TA hypothesis point B. This leaves 9 VA clauses with full noun phrase agents to be accounted

for. These are shown in examples (155) to (163) below.

1. (155) I ngā wā e mohoao ana tō rātou āhua; e patu
 TAM the-PL time TAM untamed TAM of 3PL appearance TAM kill
noa iho ana tētehi hapū ki tētehi hapū, tētehi iwi ki tētehi iwi.
 FREELY DN1 TAM one hapū ACC one hapū one iwi ACC one iwi
 ‘In the uncivilised times hapū were freely killing hapū and iwi were freely killing
 iwi.’ (JPS0023)

2. (156) Rokohanga atu, e patu ana ngā tāngata i te tuahine.
 come upon AWAY TAM beat TAM the-PL people ACC the sister
 ‘(He) came upon the people beating the sister.’ (JPS0074)

3. (157) Erangi kei ētahi atu takiwa, e patu tonu ana ngā Māori
 But LOC some other place TAM kill still TAM the-PL Māori people
 i ngā manu.
 ACC the-PL bird
 ‘But, in some other places, the Māori people are still killing the birds.’ (LG)

4. (158) Hei aha i te mea, i a Te Waha-roa te mana, patu tonu
 PART what INST the thing LOC PERS Te Waha-roa the mana kill CONT
 a Waikato i a Hauraki.
 PERS Waikato ACC PERS Hauraki
 ‘Despite the fact that Te Waha-roa had the authority, Waikato continued killing
 Hauraki.’ (W5)

5. (159) **Ka patu** a Tama i a ia.
 TAM beat PERS Tama ACC PERS 3SG
 ‘Tama began to beat her.’ (NMNT)

6. (160) **Ā patu noa ake nei** tāna tāne i a ia.
 And beat FREELY UP1 NEAR1 her husband ACC PERS 3SG
 ‘And her husband thoroughly beat her up.’ (W4)

7. (161) **Ka patu ai** ō mātou tāngata i te upoko o te tangata o te iwi
TAM beat PART of 1PL people ACC the head of the person of the iwi
rā.
DIST
‘Our people thus hit the head of the person of that iwi.’ (W10)
8. (162) Nō te mea hoki i **patu kau** a Hongi-hika i ngā tāngata,
of the thing also TAM kill EXCL PERS Hongi-hika ACC the-PL people
ā kāhore i nohoia, e ia te whenua.
and not TAM live-CIA AGNT 3SG the land
‘Because Hongi-hika decisively killed the people and did not settle the land.’ (W5)
9. (163) **Ka patu** te matua i te iramutu
TAM kill the aunt/uncle ACC the niece/nephew
‘The aunt/uncle killed the niece/nephew.’ (W5)

5.5.4 The Transitivity of the VA Clauses with *Patu* that have Full Noun Phrase Agents

Point B of the TA hypothesis states that when grammatical reasons do not dictate the use of the a-construction then its use indicates a lower degree of transitivity. In these 9 examples of VA clauses with the verb *patu* that have full noun phrases as agents, there are three markers of high transitivity that all the clauses exhibit. They are components A, B and I of Hopper and Thompson’s list of features of transitivity: there are two participants, an action is involved and the P noun phrase is affected (Hopper and Thompson, 1980, p. 252). There is a difference in the degree of affectedness of the P noun phrase between the sense of *patu* that is *to kill* from the sense that is *to beat* but both senses suggest a high degree of affectedness of the P noun phrase.

Examples 1 - 4 are all clearly atelic as they are in the progressive aspect. For the same reason they are less punctual than if the action had been perfective. Examples 1 and 3 also have non-individuated P noun phrases. Although, this can only be deduced by reading the surrounding text, example 5 is also atelic. It is introduced by the particle ‘ka’ which is inceptive and does not explicitly convey any information about the completion of the action. The particle ‘ka’ does

not however explicitly mark a clause as low in transitivity but this particular example is atelic. Therefore these five examples can reasonably be considered to show some signs of low transitivity and are thus consistent with point C of the TA hypothesis.

Examples 6, 7, 8 and 9 do not support the point C of the TA Hypothesis. None of them show any clear signs of reduced transitivity. In particular they are all perfective and they all have highly affected patient noun phrases. Thus we must resort to point E of the TA hypothesis to explain the last 4 examples. That is, they may be an indication of a change in progress.

So it can be seen that the TA hypothesis accounts for all of the a-constructions with *patu* in the DEWMC. This does not however, preclude the existence of other motivating factors and the reader is referred to point F of the TA hypothesis. That is, the TA hypothesis describes strong tendencies rather than strict rules.

Chapter 6

Conclusions

This thesis has attempted to draw a sharper focus on the notorious construction in Māori generally known as the ‘passive’. The study was based on the DEWMC, a corpus of 1,100,967 tokens of early (mostly nineteenth century) written Māori. As a result, this thesis has nothing to say about contemporary Māori. It does however, provide a description of the p-construction in nineteenth century text that could be used as a benchmark from which to assess whether or not there has been a change in the modern language.

6.1 The Quantitative Analysis

The principle aim of this project was to identify how frequently the p-construction was used for verbal constructions and how frequently the p-construction was used in positions where there would have been a choice between the p-construction and the a-construction. Twenty verbs (14 Transitive and 6 experiencer) were examined and the individual preference of each verb for the p-construction was calculated as well as the figures for each verb type. This process constitutes the experimental part of this project. The methodology was described in Chapter 3 and the results were presented in Chapter 4.

Two particularly strong points have emerged from this part of the study.

1. Transitive verbs have an very high preference for the p-construction. 86% of Transitive

clauses in viable positions were p-constructions. This empirically confirms what has been anecdotally observed for over 100 years.

2. There is a large (and statistically significant) difference in the preference for the p-construction between the two verb categories of Transitive and experiencer.

The p-construction is used more often than the a-construction for Transitive verbs. That is, ‘canonical transitive’ and ‘di-transitive’ verbs occur more often in p-constructions than they do in any other verbal constructions. 57% of the total verbal uses of these types of verbs are p-constructions. When positions where the p-construction is not permissible for grammatical reasons are excluded, 86% of all Transitive verbs occur in p-constructions. These figures contrast with those of experiencer verbs. In clauses with experiencer verbs, 27% of all verbal uses are suffixed, and 34% of the clauses where both constructions are viable are p-constructions.

6.2 The Qualitative Analysis

The second aim of this study was to attempt to address the question of why the p-construction is so common and how it differs from what is expected of a passive construction. This led to the proposal of the TA (transitivity / accessibility) hypothesis in Chapter 5 which is repeated below.

6.2.1 The TA Hypothesis

- A** The p-construction is the normal construction for transitive sentences.
- B** The a-construction is used for syntactically motivated reasons to gain access to the ‘Aa’ noun phrase as a pivot e.g. topicalisation, focussing and equi-NP deletion in narrative and subordination.
- C** Otherwise, the a-construction serves to indicate low transitivity.

These conditions do not account for every a-construction so the following caveats are included in the hypothesis.

- d If a p-construction shows low transitivity then it may be better analysed as a passive construction. That is, a patient focussing or agent de-focussing construction.
- e If an a-construction shows high transitivity then it may be an example of a change in progress.
- f The statements A to E above describe strong tendencies rather than strict rules.

6.2.2 How Passive-like is the Passive?

The TA hypothesis suggested reasons why the a-construction is used. It is based on the assumption that the p-construction will be used by default. However, the TA hypothesis does not address the question of how typical the p-construction is of a passive construction. This was discussed in sections 2.2, 2.5 and 5.2 and is summarised below.

‘Passive-like’ features of the p-construction

- The verb is morphologically marked.
- The agent (Ap) noun phrase is not obligatory.
- The p-construction is sometimes used to de-focus the agent.
- The Ap noun phrase is not strongly integrated into the syntax of the clause (Comrie, 1988).
For example, it is not possible to relativise on or question the Ap noun phrase directly.

‘Un-passive-like’ features of the p-construction

- The p-construction occurs too frequently.
- The p-construction does not indicate low transitivity or reduce the transitivity of a clause.
- In fact, the p-construction often indicates high transitivity.
- The p-construction does not specifically serve to de focus the agent.
- The agent phrase is not introduced by a preposition that is related to an oblique marker elsewhere in the language but rather by a preposition that is related to the ergative marker elsewhere in the family.

6.2.3 If the A-construction is Not the Basic Transitive Construction then What is it?

Traditional analyses of Māori have taken the a-construction as the basic unmarked construction. If that notion is rejected on the grounds that a-constructions in viable positions are so rare, then what is the a-construction? At least three possible analyses have been proposed.

1. It is an accusative construction with the A noun phrase marked as nominative with \emptyset and the P marked as accusative with *i or ki* (Pucilowski, 2008).
2. It is some kind of de-vebal or pseudo-transitive construction (Ota, 2000).
3. It is an anti-passive (Gibson and Starosta, 1990).

The primary purpose of the a-construction is to put the agent noun phrase into the \emptyset marked case thereby making it available for the various syntactic processes that require the target or antecedent noun phrase to be in the \emptyset marked case. Most of the a-constructions that cannot be explained in this way show reduced transitivity from the notional p-construction equivalent sentence. The p-construction is the default transitive construction. It is definitely not a prototypical passive construction but nor is it clearly an ergative transitive construction. Comrie (1988, p. 9) has this to say about attempting to define a particular construction as passive or ergative.

While clarification is introduced into the controversy, it remains true that the definitions proposed are in terms of prototypes rather than in terms of necessary-and-sufficient conditions, so that inevitably there will be borderline cases that at not assignable unequivocally to one construction or the other.

6.3 Suggestions for Teaching the P-construction to Second Language Learners of Māori

It is important to introduce the p-construction early in the language acquisition process and to encourage its use for simple sentences with Transitive verbs. Introducing transitive imperatives

early is probably a good way to acquire some basic verbal vocabulary. It is also a helpful way to demonstrate the idea that the suffixed form of the verb entails the existence of a patient. However, this cannot be done at the expense of understanding the a-construction and in particular, the ability to parse verbs into the stem and the suffix must be supported.

Although the p-construction may behave grammatically as if it is a transformation of the a-construction, it does not primarily function in this way. It is the preferred construction for Transitive clauses and it should probably be presented as such. More prototypically passive uses of the p-construction could be dealt with later.

6.4 Possible Areas for Further Study

In the never ending quest to gain greater insight into the fascinating entity that is human language in general and the Māori language in particular, no mere masters project will ever be more than a subatomic drop of detail in an infinite universe of uncertainty. The following are a few suggestions for further research that this particular project has generated.

- A discourse level investigation into the patterns of transitivity and aspect for the various verbal constructions in Māori.
- An investigation into the grammatical roles of Māori noun phrases. How strong is the subject status of the patient phrase in the p-construction? Or conversely, how strong is the direct object status of the patient in the a-construction?
- An investigation into the existence of a sub category of experiencer verbs that have a higher preference for the p-construction looking first at the verbs of perception.
- An investigation into verbs of communication and/or three-participant verbs.
- A diachronic investigation into the p-construction, tracking any change between the DEWMC data and data taken from modern Māori.
- An investigation into the distribution of negatives with the various verbal constructions.

- An investigation into the frequency and distribution of the passive-like uses of the p-construction.
- An investigation into how the p-construction and the a-construction are acquired by L1 and L2 learners.
- A study comparing the frequency and distribution of the p-construction in different genres of text e.g. narrative versus expository.

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