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The particle *ai* in New Zealand Māori

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Abstract

This study looked at the functions and uses of the problematic particle *ai* in New Zealand Māori. *Ai* is described primarily as a verbal particle. It appears in a number of seemingly disparate constructions, has no parallel in English, and there has never been a satisfactory explanation of all its uses.

The data consists of a large corpus of sentences containing *ai* that were extracted from selected texts written by native speakers from as early as the 19th Century up until 2005. Sentences were also solicited from fluent speakers.

Analysis of the data and discussions with native speakers led to the conclusion that *ai* exists as two distinct particles, which were labelled habitual *ai*, and anaphoric *ai.*

Habitual *ai* is a verbal marker that confers habitual aspect on its verb. It was found that it is mainly used by speakers from the Eastern regions of the North Island.

Anaphoric *ai* refers back to some element earlier in the discourse. It has two forms, labelled resumptive *ai* and resultative *ai*.

Resumptive *ai* is an anaphoric pro-form that resumes a specific noun phrase in its clause. It was found to have a grammatical function. When resumptive *ai* was deleted from its clause consultants judged the results ill-formed. An example of a construction with resumptive *ai* is a sentence with an adverbial of reason located before the verb.

Resultative *ai* locates its clause in prior discourse, making a causal link between its clause and the prior element. It was found to have a mainly lexical function. When resultative *ai* was deleted from its clause consultants judged that the meaning had altered and that the causal link was weakened or lost. An example of a construction with resultative *ai* is a purpose clause which follows an action that has been carried out for that specific purpose.

This thesis provides a unified explanation for all uses of *ai*. It also accounts for previously unexplained appearances, by showing that one form of *ai* may occur in environments restricted to another. Its appearance in non-verbal phrases are accounted for, and observations have been made about changes in its use over time.

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Nō reira e hoa mā, 'Ki te hoe!'

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List of Abbreviations

ACC	accusative
AP	adjectival phrase
cont	continually
Canga	nominalising suffix*
CLS	classifying particle
DET	determiner
diff	different
DIR	directional particle**
DO	direct object
DUPL	reduplicating segment
EMPH	emphatic
EQ	equative
excl	exclusive
FOC	focus
incl	inclusive
LOC	locative particle***
mod	modifier
N	noun
NOM	nominalising suffix
NEG	negator
NP	noun phrase
num	numeral particle
Obl	oblique
PASS	passive suffix
Periph	peripheral
PER	personal article
pl	plural
post	post-head
PP	prepositional phrase
pre	pre-head
Su	subject (grammatical)
TAM	tense/aspect/mood particle
TOP	topic
V	verb
VOC	vocative
VP	verb phrase

* Derives nouns.
Has the general shape : C + anga
where C = consonant

**Directional Particles:

mai	hither
atu	away
ake	up
iho	down

***Locative Particles:

nei	near1
nā	near2
rā	far

Chapter 1: INTRODUCTION

1 Introduction

This thesis presents the results of an analysis of the uses and functions of the particle *ai* in the Māori language of Aotearoa/New Zealand. The analysis is based on a large corpus of sentences that contain *ai* found in Māori narratives, as well as sentences specifically solicited from native speakers.

The format of the thesis is as follows: This chapter outlines some of the problems that have thwarted previous attempts to satisfactorily account for all the uses of *ai*, and describes the research process employed to resolve them. Chapter 2 presents a grammar of aspects of Māori language (henceforth Māori), focussing on the structures where *ai* is found. Chapter 3 critiques what Māori grammars have had to say about *ai* and culminates in an hypothesis designed to account for the uses of *ai*. Chapters 4 to 6 describe the various uses of *ai* in detail. These chapters contain the most substantive part of the thesis. Chapter 7 describes the distribution of *ai* as found in the narratives. Chapter 8 presents my conclusions.

1.1 On Māori and its dialects

Māori is an Eastern Polynesian language. It is the ancestral language of the tangata whenua, the indigenous people of New Zealand. Currently there are around 30,000 adults who claim a fluency in the language, which is approximately 9% of all Māori adults (Te Taura Whiri i te Reo Māori 2001), although nearly 161,000 New Zealanders claim to be able to speak and understand Māori 'to some degree' (Statistics New Zealand 2001). Māori exists as a number of mutually intelligible dialects, although just how many dialects there are and the exact differences between them is currently uncertain. Hari Hongi, the first native speaker to propose a grammar for Māori, had this to say about dialectal variation (Stowell 1911:v):

> Throughout the length and breadth of NZ the differences are so very slight, never of the least difficulty to the ordinary native, that they may by courtesy alone be referred to as sub-dialects.

In his study of Māori dialects, Harlow observed that the earliest Māori grammars referred to regional variation in the language (1979:123). He collated and then analysed the dialect regions that had been proposed by Maunsell (1862), Williams (1852), Colenso (1868), Skinner (1921), and Biggs (1961). Of these, Biggs has been the most influential and deserves further comment. He divided speakers of Māori into three broad regions, Western, Eastern, and Central (Biggs 1961:2-3). His Western region encompassed all of Northland, Waikato, Maniapoto, Whanganui and Taranaki. The Eastern region consisted of the Bay of Plenty tribes and all of the East Coast region, including Ngāti Kahungunu. The Central region was made up of Te Arawa and Ngāti Tuwharetoa who, he claimed, shared features of both Eastern and Western groups (1961:3). Harlow's analysis of regional variations provided some support for a division into Western and Eastern dialect areas, but not exactly along the lines of Biggs' proposal (1979:130).

In 1988 Biggs revisited the question of dialect, summarising what was known about them at that point in time. He argued that any differences in Māori should be defined tribally rather than regionally (1988:61) and concluded that (1988:74):

> what is known about Maori dialects is anecdotal rather that systematic knowledge; any isoglosses that can be drawn would be impressionistic; moreover most of the information is not anchored firmly in time.

Since then there does not appear to have been any systematic study of Māori dialect. Indeed, many Māori grammars do not discuss dialectal variations at all. Some grammars admit minor dialectal variations in vocabulary and pronunciation, but none seriously consider variations in syntax. Where regional variations are referred to, dialect regions are not often clearly specified. Bauer implied that dialect equates roughly with tribal areas (1997:xxi), although at times she specifically referred to

Eastern, Western, and Northern dialect regions in a way reminiscent of Biggs. Harlow similarly referred to the Eastern and Northern dialects (2001:35) and at other times described variation in terms of more localised areas, such Waikato (2001:57) and the Bay of Plenty (2001:240).

Impressionistically, it seems to me that collating numbers of tribes (henceforth iwi) into dialect regions is not justified, given our current level of knowledge of regional variation in Māori. Hence any variations that have been observed in this work are described at the iwi level, and a fuller analysis awaits a comprehensive study on dialect. This accords with Biggs' observation that 'from a Maori perspective, dialect is the way a particular tribe talks' (1988:61). It is appropriate to use collative terms such as Northern only where the evidence is overwhelming supportive of the view that a particular element of Māori is shared by all iwi of that region. This is the approach adopted here.

1.2 The particle *ai*

The Williams' *Dictionary of the Maori Language* has four distinct entries for *ai* (1971:4-5). Each of these occurs in different syntactical environments and are best considered as examples of homophony. One *ai* is a verb which is used to indicate that something exists:

1000 Tō te kurī tōna mate tē ai he aha-tanga.
of the dog his trouble NEG exist a what-NOM

His trouble is that of a dog, nothing of consequence. (Mead and Grove 2001:48)

There is also another lexical *ai* which is a verb with the meaning 'to copulate' (1971:5). The following example has *ai* in its passive form as shown by the addition of the passive suffix *-tia*:

1001 .. ko tama i ai-tia ki runga ki te takapau wharanui.
TOP son TAM conceive-PASS to upon to the mat wide

.. the son who was conceived on the wide sleeping mat. (Ngata and Te Hurinui 1980:322)

Another *ai* can be used as an interjective:

1002 Ai! Taukiri ē! (Grey 1928:54)
Ai surprise e

Well! How surprising!

The three *ai* described above are reasonably rare in both spoken and written Māori. There is no controversy concerning their use and they are not considered further in this thesis. The *ai* which is the central concern of the present work is that which Williams defined as an adverb which was 'not generally to be translated by any equivalent English word' (1971:4). An example follows in which *ai* follows the verb *tō* 'to set':

1003 Ākuanei a Kino tō ai me he rā.
soon PER Kino set ai like a sun

Soon evil disappears like the setting of the sun. (Mead and Grove 2001:15)

The use of this *ai* is widespread in both spoken and written Māori. It has no parallel in English and there is some mystery associated with its function. As such a mastery of its uses presents a considerable challenge to the second language learner, particularly for native speakers of English. Māori language teachers often struggle to explain the uses of *ai* to their students. As Mutu observed 'most Māori language teachers are not only not native speakers of Māori, they also do not have adequate training in how the Māori language is constructed and works' (2000:275). Despite this,

there has been no comprehensive analysis of *ai* to date. Some of the problems involved with the description and uses of *ai* will now be described, in no particular order of importance.

Ai functions in a complex way with other particles that mark verbs. It is found freely with some, such as *i* and *e*, yet is totally prohibited from co-occurring with others, such as *kua* and *me*. Its interaction with *ka* appears erratic. It is generally believed to be incompatible with the post-verbal particle *ana*, and with the locative particles *nei*, *nā*, and *rā*, although it has been attested with *rā*. Its co-occurrence with these particles needs detailed analysis.

Ai appears after the verb in many relative clauses. Most grammars are adamant that *ai* is not possible when the head of the relative clause is the subject of that clause. However there are many counter examples and no satisfactory explanation of these appears to be available. This needs further analysis. An example of *ai* subject relativisation follows:

1004 Ko Te Kuiti te takawaenga o ngā wāhi i noho-ia ai e rātou.
TOP Te Kuiti the mediator of the(pl) place TAM settle-PASS ai by them

Te Kuiti was the central point of the places they settled. (Jones and Biggs 1995:171)

Ai can be used by at least some speakers to indicate habitual action. Some speakers appear to reject this use of *ai* while others restrict it to marking habitual aspect in certain tenses. Whether this use is strictly dialectal needs examination. An example of *ai* conferring habitual aspect follows:

1005 Noho ai ngā kaumātua i runga i tērā noho-anga.
sit ai the(pl) elder at upon at that sit-NOM

The elders usually sit on that seat. (Foster 1987:159)

Ai is found in some sentences where certain adverbial phrases are located in front of the verb (henceforth fronted). The following sentence has a fronted phrase of reason, and *ai* follows the verb:

1006 Nā te makariri rātou i hoki ai. (Waititi 1991:143)
belong the cold they TAM return ai

They returned because of the cold.

An alternate version of this sentence is possible with *ka* instead of *i* marking the verb and no *ai*:

1007 Nā te mahana ka rere anō ōna toto.
belong the warm TAM flow again his(pl) blood

Because of the heat, his blood began to flow again. (Mead 1996a:131)

The differences between these two constructions have not been fully analysed.

In some constructions the use of *ai* appears to be obligatory and its deletion results in an ungrammatical sentence. For example 1003 is ungrammatical without *ai*:

1008 *Ākuanei a Kino tō me he rā.
soon PER Kino set like the sun

In other constructions the use of *ai* appears to be optional. The following sentence contains a clause of purpose introduced by *kia* and in this case deletion of *ai* does not result in an ungrammatical sentence:

1009 Haere e oma kia puta ai koe.
move TAM run TAM escape ai you

Go, run in order that you may escape. (Mead and Grove 2001:52)

1009a. Haere e oma kia puta koe.

Although *ai* can be deleted from 1009 at least some native speakers believe that when this occurs the meaning of the utterance changes. What is not clear is whether *ai* found in obligatory settings is the same particle as that found in optional ones. If these particles are different then what is the relationship between them? What also needs analysis is the semantic contribution, if any, that *ai* makes in these environments.

Although predominantly a verbal particle, examples of the use of *ai* in non-verbal phrases are not hard to find. There appears to be no satisfactory explanation for this in the literature. Non-verbal phrases containing *ai*, such as the following, require further analysis:

1010 Ākuanei a Ngāpuhi te whai ringaringa ai.
today PER Ngāpuhi the possess arms ai

Ngapuhi are well armed nowadays. (Biggs 1997:169)

Ai appears to have considerable variation in use between iwi, and between different speakers of the same iwi (Bauer 1997:375), and this needs analysis. Also whether there have been changes in its usage over time needs exploring. Cursory analysis shows that older texts appear to have more occurrences of *ai* than some of their modern counterparts.

Ai gives numerous descriptive problems to writers of Māori grammar texts. Indeed, Bauer, who produced the most comprehensive text of Māori grammar to date, analysed a corpus of about 400 sentences containing *ai*, and concluded that ‘at this point, it is not possible to provide satisfactory explanations for all the uses and non-uses of *ai*’ (1997:398).

1.3 The research methodology

This thesis is about the way in which native speakers of Māori use the particle *ai*. It aims to describe all the uses and functions of *ai*. The research methodology used was as follows:

Firstly a corpus of sentences was constructed. This took the form of a searchable database of Maori sentences that contain *ai*. A variety of sources were used, with an emphasis on published and unpublished narratives written from the early nineteenth century up to 2005. All sentences in the database have been written by native speakers. As wide a range of iwi as possible are represented in the database.

After examination of the sentences in the database a tentative classification of the uses of *ai* was made. It was decided that this would be based on the structure of the sentences as most Māori grammars available to me also take this approach. Once the structures were determined a search was carried out in the narratives for sentences of similar structures which did not include *ai*. These were then included in the database (if they existed). Finally tentative 'grammar rules' were devised to describe and account for the uses and non-uses of *ai*.

These grammar rules were then tested for their adequacy. Any grammar rule must accord with those internal 'grammar rules' that a native speaker uses to create grammatically correct utterances (Aitchison 1999:183). The grammar rule will be said to have 'explanatory adequacy' if it can correctly predict all well formed sentences and provide an account of the native speaker's intuitions about their language (Crowley *et al.* 1995:337).

New sentences were generated using the tentative grammar rules and these were tested with my consultants for their grammatical acceptability. The rules were modified, where necessary, and the process repeated until the results were deemed satisfactory. Any unsatisfactory rule was abandoned entirely. Those rules which survived these tests have become part of this thesis. Where the veracity of a rule remains uncertain this has been indicated in the thesis.

In this research methodology the knowledge of the native speaker is paramount. This was ensured in two ways: (a) The tentative grammar rules were formulated by observing the patterns that occur in the writings of native speakers, and (b) the acceptance of these rules depended on native speakers agreeing that the generated sentences were both grammatical and acceptable. The grammatical rules that are generated by this methodology are hopefully isomorphic with 'the grammar of the language that exists in the mind of its speakers' (Fromkin *et al.* 1999:10).

A further word about the nature of 'adequate' grammar rules is required. To be adequate the grammar rules must be descriptive rather than prescriptive, and they must characterise a speaker's language competence (Wasow 2001:298). They do not appear as a set of prescriptive rules that must

be followed in order to ‘speak grammatically’, but rather as a set of observations as to how the language is actually used. They summarise how sentences are constructed by native speakers.

Throughout this thesis mention is made of working with consultants. My two primary consultants were from Tūhoe and both claimed Māori as their first language. Indeed one spoke no English at all until her early teens. I worked reasonably regularly with three other consultants from Ngāpuhi, Ngāti Porou, and Te Arawa/Ngāti Rangiwewehi iwi. I also worked from time to time with fluent speakers from Ngāti Hine, Ngāti Whātua, Waikato, Taranaki, and Ngāti Tama. Working with consultants from more iwi would have been useful but did not prove possible.

A justification for the use of textual material as the primary source of data is required. Most linguistic theories now assert that spoken language is primary, a view with which I concur. However there are several reasons why oral Māori was not chosen as the main data source for this work. Firstly, native speakers of Māori are not overly numerous nowadays, and it proved impossible to find a representative from each iwi who could spare the inordinate amount of time required for an analysis of the magnitude carried out here. Secondly, as I intended to investigate changes over time in the uses of *ai* this could only be facilitated by comparisons of textual material written in different time periods. Thirdly, using textual material deals directly with native speaker competency and little allowance needs to be made for performance errors. Finally there is the pragmatic fact that a large body of textual material is available for just this kind of study in comparison to sparse oral recordings. It should be noted that the reliance on textual material does not automatically imply that any conclusions drawn should apply only to written Māori. At all times consultants were encouraged to model how something would be said rather than how it would be written.

1.4 The database and corpus

The analysis in this work has been carried out using a database of 2728 sentences containing *ai* obtained from a range of both classical and modern Māori texts. 2280 of these sentences come from narratives, the primary genre chosen for the analysis. The remainder of the sentences consist of examples found in the various grammar texts available, from proverbs, and a few interesting examples found in *waiata* 'song', formal reports, and letters to newspapers etc. This constitutes what I call the '*ai* corpus'. As well as the *ai* corpus there are also 1207 sentences in the database which do not contain *ai.* These have been deliberately chosen because the absence of the particle gives important information about its non-use. For each sentence the database contains the Māori sentence, an English translation, information concerning the source and authorship, and the date it was written (where known).

From time to time statements are made in this thesis about changes over time that have occurred in the use of *ai*. The terms 'classical' and 'modern' are used here to refer to two sets of narratives used as the source of sentences. In this work classical narratives are defined as those written in the nineteenth century, and includes texts such as *Ngā Kōrero a Mohi Ruatapu*, Orbell's *Traditional Māori Stories*, and single narratives published in the *Journal of the Polynesian Society*. In the case of heavily edited texts, such as Grey's *Nga Mahi a nga Tupuna*, the original manuscripts were referred to when required. Modern narratives are defined as those written after 1960 and are made up of a selection of texts from authors who are considered to be the most competent contemporary speakers of Māori. Examples are the works of Hoani Waititi, Timoti Karetu, and modern texts such as *Ko Tāwhaki-nui-a-Hema* by Hirini Mead (which has an English version *Tāwhaki: The Deeds of a Demigod* (Mead 1996b)), as well as the collections of contemporary Māori fiction made by Huia Publishers. A full list of the narrative sources used is provided in the appendix.

The classical and modern texts used for *ai* and non-*ai* sentences is called the 'corpus of narratives' in this work. Some texts were deliberately chosen to ensure representation of as wide a range of iwi as possible. In the database there are 1112 sentences from narratives written in the classical period which contain *ai* which are able to be compared with the 1136 *ai* sentences from narratives of the modern period. Every sentence containing the particle *ai* from the corpus of narratives has been included in the *ai* corpus. This enabled analysis of the various uses of *ai* in both time frames and also conclusions to be drawn about changes that have occurred in its use in narratives over time. The non-*ai* sentences were also largely extracted from these narratives. Sentences containing *ai* from narratives written between the classical and modern time frames are also included in the database but were not used for the analysis of temporal changes.

There are 95 authors in the database who belong to a total of 30 different iwi. Between them they contributed 1980 sentences for the *ai* corpus. There are 300 sentences in the *ai* corpus where the identity of the author is unknown but for about one third of these the author's iwi is known. In total there are 2552 copies of *ai* in the 2280 narrative sentences in my database.

A final word is required on the formatting of the Māori sentences used as examples in this thesis. Many of the sentences in the database have been used as examples. In every case any textual example has been fully referenced. The location of the reference indicates whether the original text contained an English translation. Where the reference follows the Māori text, as in 1002, the sentence is from a monolingual source, and I have provided the translation. Where the reference follows the English text, as in 1009, the sentences and translation have been taken from a bilingual source. In those cases with separate English and Māori texts, such as *Ko Te Hiakai Tangata* (Mead 1999a) and *Te Hiakai Tangata* (Mead 1999b), the reference is to the location of the Māori sentence. Those examples that are not referenced have been provided either by me or by a consultant, and this is made clear in the body of the thesis. Where grammatical points are being illustrated the examples have been glossed. Examples from texts with glosses have had their glosses changed to match the current work. Longer extracts from the narratives that have been included to indicate how a particular construction is used in context, or to exemplify a discourse feature are not glossed. Finally, it was decided to standardise all Māori text so as to conform to a conventional orthography as proposed by the Māori Language Commission (Te Taura Whiri i te Reo Māori 2003). For some older texts this has meant the marking of vowel length by the addition of macrons. For some texts it has meant the standardisation of certain words such as *rā* and *nā*.

Chapter 2: A MĀORI GRAMMAR

2 Introduction

This chapter provides an outline of selected aspects of the grammar of Māori. In particular those aspects which involve the particle *ai* are described. This is not intended to be a comprehensive treatment of Māori grammar as some aspects such as nominalisations, possession, and negatives are not discussed. For a more detailed description the texts of Bauer (1997), and Harlow (2001) are recommended, from which much of the following description is derived.

Section 2.1 lists the word classes of Māori with a basic description for each subclass.

Section 2.2 describes the three types of Māori phrase and a generalised structure is provided for each.

Section 2.3 presents an analysis of the order amongst the particles found in phrases, with a particular focus on those particles found after lexical items in the phrase. In this section arguments are presented for the need to recognise a new set of emphatic particles.

Section 2.4 describes the semantic roles that are found in Māori sentences.

Section 2.5 defines the grammatical functions in Māori.

Section 2.6 describes the structure of Māori sentences. Non-verbal and simple verbal sentences are described, and some non-canonical Māori sentences, such as passives, actor emphatic, and sentences with fronted constituents. Finally complex sentences which often involve the use of *ai* are described.

Section 2.7 outlines how the pragmatic function of emphasis is achieved in written Māori, and considers the difference between focus and topic.

The conclusion will offer some thoughts about the role of *ai* in the grammar of Māori.

2.1 Word classes

Words in Māori are either functional or lexical items, which are generally called particles and bases respectively. Bases are either nouns or verbs, each of which has their own set of subclasses. Particles provide grammatical information or modify the meaning of the bases they are associated with. All grammars define *ai* as a particle.

2.1.1 Particles

There are five major types of particle in Māori, as shown in the following diagram:

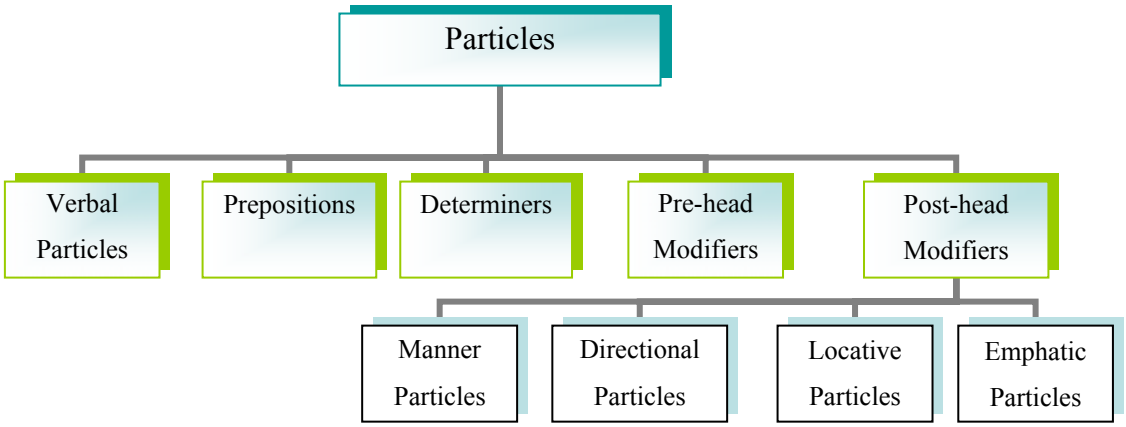

Figure 1: Particles in Māori

Verbal particles introduce verbal phrases (VPs) and indicate the tense, aspect, and mood of the action or state. They are glossed TAM in this work. The main TAMs are *ana*, *e*, *e .. ana*, *i*, *i te*, *kei te*, *ka*, *kia*, *kua*, *me*, *kei*, *ki te*, and *ai* when it confers habitual aspect on its verb. All TAMs are located in front of the verb except for *ai* and *ana* which are post-verbal.

Prepositions introduce prepositional phrases (PPs). In Māori the prepositions encode a great deal of information about the relationship of the PP to other phrases in the sentence. A relatively small number of prepositions in Māori fulfil a large number of functions. The main prepositions are *i*, *e*, *hei*, *ki*, *kei*, *ko*, *mā*, *mō*, *nā*, *nō*, *a*, *o*.

Determiners introduce noun phrases (NPs). Most determiners mark a distinction between singular and plural and some also give information about the specificity of the noun that follows, or have a deictic function. For example *ngā* 'the' marks the noun as specific and plural in contrast to *te* which is usually singular. *Tēnā* 'that' is a demonstrative which indicates a specific singular item located close to the listener. Some determiners, such as *tēnā*, may act as substantives.

Pre-head modifiers are a set of particles that precede the base they modify. The commonest are *āhua* 'quite', *āta* 'deliberately', *mātua* 'firstly', and *tino* 'very'. They are always located after the TAM or determiner.

There are four subgroups of post-head modifying particles. The manner particles *kau, kē, noa, rawa,* and *tonu* all modify the meaning of the base they follow in quite complex ways. Each one has a central meaning which varies in interaction with other particles and with the type of base they modify.

Directional particles indicate the direction of action; *mai* 'towards speaker', *atu* 'away from speaker', *ake* 'up from speaker', and *iho* 'down towards speaker'. They also have extended meanings which often appear to 'indicate mental orientation as well as physical movement', and they have important functions in narratives (Bauer 1997:350). They are glossed DIR in this work.

The locative particles have a deictic function which locates the action or event with respect to the speaker (*nei*), the hearer (*nā*), or distant from both (*rā*). They are glossed LOC in this work. Their use is generally quite predictable, although in at least some instances they appear to function as emphatics, as in the following:

1011 Tēnā, kei hea tōku nei koma? (Waititi 1991:42)
VOC at where my EMPH comb

Now, where is my comb?

The emphatic particles do not form a cohesive group in the same way as the other particles, although they all usually follow other particles in their phrases. Like the manner particles, each has a central meaning which is extended in the presence of other particles and words. *Anō* usually indicates that the action is repeated, *hoki* can often mean 'also' or 'because', and *anake* means 'only' in the sense of there being 'nothing else'.

The classification of non-habitual *ai* is problematic. It is a unique post-head modifier.

2.1.2 Bases

There is a great deal of flexibility in the way base words may be used in Māori. A word which appears to belong to a particular word class can regularly be found in environments that are typical of other classes. For bases in Māori it is best to consider each word class as 'a class of uses, rather than a class of forms' (Bauer 1997:65).

2.1.2.1 Nouns

There are three types of noun, common, personal, and local. Common nouns are 'ordinary' nouns which denote types of things. *Tangata* 'person', *moana* 'sea', and *kurī* 'dog' are examples. Personal nouns include the names for people, as well as any personified entities, such as the names for tribes and subtribes, canoes, and meeting houses. Personal pronouns such as *rātou* 'they (more than two)' are personal nouns. Local nouns (called locatives in some grammars) include all place names, and a relatively small list of important words that indicate location relative to some other object, such as *roto* 'inside' and *muri* 'behind, after'.

2.1.2.2 Verbs

There are five types of verb. They are classified by their transitivity, and by the grammatical processes they undergo. The following diagram shows how verbs are organised in this work, and is largely based on the scheme proposed by Bauer (1997:37-41):

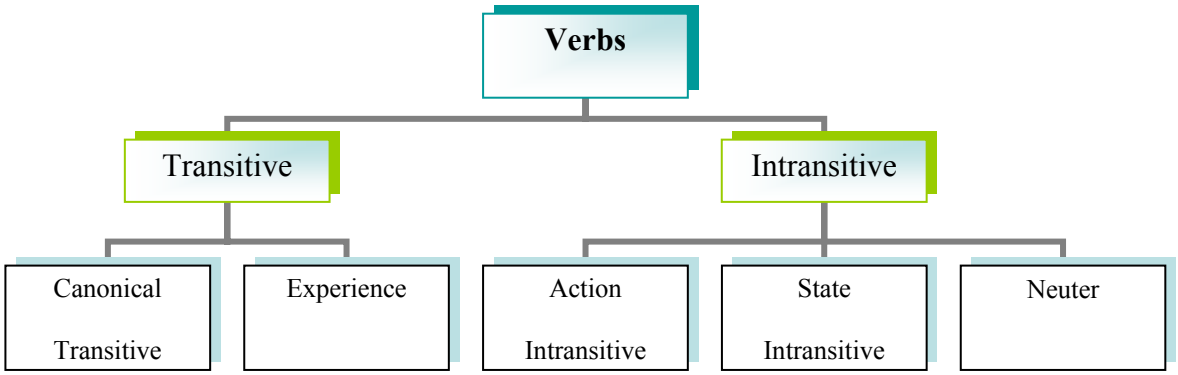

Figure 2 Types of verb in Māori

Canonical transitive verbs are two argument verbs which require an actor and a patient. A typical canonical transitive verb is *āwhina* 'help':

1012	I	āwhina	te	kaiako	i	te	tauira.
	TAM	help	the	teacher	ACC	the	student

The teacher helped the student.

Experience verbs are also two argument verbs in which the 'actor' has an experience, and is somehow affected indirectly by the source of that experience. A typical experience verb is *mahara* 'to remember':

1013 Me mahara koe ki ngā tonotono a ō tūpuna.
TAM remember you ACC the(pl) instruction of your(pl) ancestors

You must remember the instructions of your ancestors.

Intransitive verbs involve only one argument. Action intransitives typically describe intransitive actions. Examples are *haere* ‘to move’ and *oma* ‘to run’:

1014 Kei.te oma te toa.
TAM run the warrior

The warrior is running.

State intransitives correspond semantically to adjectives in English. Typical examples are *pai* ‘good’ and *hou* ‘new’:

1015 Ka pai te kai.
TAM good the food

The food is good.

State intransitives frequently modify nouns, as in *he whare pai* ‘a nice house’. They are generally not considered to be adjectives in Māori because they also regularly act as verbs.

Neuter verbs are a small group of one argument verbs which describe a state. Unlike state intransitives they do not appear to be able to modify other bases. Important examples of neuter verbs are *mutu* ‘ended’, *oti* ‘finished’, *mau* ‘caught’, *riro* ‘take’, and *mahue* ‘left behind’:

1016 Kua oti te mahi.
TAM finished the work

The job is finished.

Ai interacts in complex ways with these different verb types.

2.2 The phrase

It was Biggs who first argued that the phrase was the most significant unit for the analysis of Māori (1973:17). He observed that phrases are the 'natural pause units of speech' and that phrases combine to form sentences. In the following sentence, the phrase boundaries are shown by commas:

1017 Kei te tae mai, te tino tangata rā, ki te hui.

That very man is arriving at the meeting.

Three types of phrase are recognised for Māori: verb phrase (VP), noun phrase (NP), prepositional phrase (PP) (Harlow 1996:11). The head of any phrase is defined here as the word which gives the type of phrase its name. Thus the head of a NP is a noun, the head of a VP is a verb, and the head of a PP is a preposition (Hudson 2000:90). Each of the phrase types will be considered in more detail below.

2.2.1 Verb Phrases

The generalised structure of the VP is:

VP	→	(TAM)	$(mod)_{pre}$	V	$(mod(s))_{post}$
		Kei.te	-	tae	mai

The lexical head of a VP is the verb, e.g. *tae* 'arrive'. Only one base may occupy the head, although it may be modified by a base immediately following it. *Haere* commonly modifies verbs in this manner:

1018 Ka nui haere ngā pakanga ki reira.
TAM big move the(pl) battle at there

The battles there were increasing. (Jones and Biggs 1995:17)

Another common structure where the head of a VP is modified by another base is a structure called object incorporation. Consider the following sentence:

1019 Kei.te tito a Moana i te waiata.
TAM compose PER Moana ACC the song

Moana is writing the song.

If the object of the verb is non-specific it is incorporated as a lexical modifier of the head:

1019a. Kei.te tito waiata a Moana.
TAM compose song PER Moana

Moana is song writing.

A TAM is not required in all VPs (although some grammars propose Ø as a non-realised TAM). For example when the verb is modified by an adverbial particle, a TAM does not always appear:

1020 Oho rawa ake te kuia rā, kāore tōna maro.
wake finally DIR the old.woman LOC NEG her skirt

By the time the woman got up, her skirt was gone. (Reedy 1993:20)

The TAMs *ana* and *ai* are located after the head. *Ana* is often found after the verb in combination with pre-verbal *e* to represent continuous aspect:

1021 E tangi ana kōrua ki te aha?
TAM weep TAM you to the what

Why are you weeping? (Orbell 1992:20)

Ana is also used alone, particularly in narratives, to represent past action:

1022 Tae ana te taurekareka, hoki mai ana.
arrive TAM the slave return DIR TAM

The slave accomplished his task and returned. (Biggs 1997:251)

The TAM *ai* is used to mark habitual aspect. The usual pattern for this use of *ai* is as follows:

1023 Mahi-a ai tēnei mahi ia tau ia tau. (Waititi 1991:104)
work-PASS ai this work each year each year

This work was done every year.

All pre-head and post-head modifiers from Figure 1 are found in VPs.

2.2.2 Noun Phrases

The generalised structure of the NP is:

NP → (DET) $(\text{mod})_{\text{pre}}$ N $(\text{mod(s)})_{\text{post}}$

te tino tangata rā

The lexical head of a NP is the noun, e.g. *tangata* ‘person’. Certain determiners may act as the head of a NP (i.e. act as a substantival), for example the demonstrative *tērā* ‘that’ in the following:

1024 Ā, ka haere atu tērā ki tāwāhi. (Waititi 1985:46)
and TAM move DIR that to overseas

And so she went overseas.

Although most NP require determiners, demonstratives used substantively as in 1024, and personal pronouns are examples of lexical heads of NPs which do not.

The head may be modified by another base which immediately follows it, a common construction being where a state intransitive modifies the head noun, as in *taniwha nui* 'big monster'.

Bauer claims that *tino* is the only pre-head modifier found in NPs (1997:312). In my data *tino* does appear freely as a pre-head modifier in NPs, but there are also several instances with *āta* 'gently' also modifying the NP:

1025 .. he nui tōna āta noho, tāna mārie. (Grey 1928:132)
CLS big his gently stay his peace

.. his security and peace were great.

Most of the post-head modifiers from Figure 1 occur at least occasionally in NPs.

In sentences, NPs are either independent or the complement of a preposition. Generally there is only one independent NP in a verbal sentence and this will be the grammatical subject of the sentence. It is often convenient to call this the 'unmarked NP'. In the following sentence, the grammatical subject *te tupu* is the unmarked NP and the remaining NPs *te raumati* and *koe* are the complements of *kei* and *e* respectively:

1026 Kei te raumati ka kite-a ai e koe te tupu.
at the summer TAM find-PASS ai by you the growth

When summer comes you'll find it by its sprouts. (Mead and Grove 2001:205)

2.2.3 Prepositional Phrases

The generalised structure of the PP is:

PP → Preposition NP

ki te hui

While there is some disagreement about the internal structure of a PP, the position adopted here is that the head is the preposition (Miller 2002:118) and the NP its complement (Barry 1998:117). The term complement is used here to mean a constituent whose 'existence is implied by the meaning of the head' (O'Grady *et al.* 1993:161). In the following sentence, the head of the PP is the instrumental preposition *ki* 'with' which 'implies the existence' of the NP *te rākau*:

1027 Kua patu-a te hoariri ki te rākau.
TAM hit-PASS the enemy with the weapon

The enemy was hit with a weapon.

In non-verbal sentences a PP may act as the predicate of the sentence. In verbal sentences PPs play a multitude of roles largely determined by the verb. In the following example, the PP introduced by *i* is the origin of the motion, that introduced by *ki* is the goal, and that introduced by *mā* is the means:

1028 Haere ai ia i tana kāinga ki tana mahi mā raro.
move ai she from her home to her work by below

She usually travels from her home to work on foot.

2.3 Order amongst the post-head modifiers

In this section, I examine the positions taken by the particles located after the base in VPs and NPs. Other works call these the post-posed particles (PoP). This is where *ai* is located.

The internal structure of the Māori phrase was first described in detail by Bruce Biggs in his PhD *The Structure of New Zealand Māori*. Using an item-arrangement model, he grouped the particles and then assigned each group a position (slot) relative to what he called the nucleus. He further proposed that there should be no more than one item occupying each slot (1961:22). For the PoP Biggs proposed seven slots. The first of these, labelled slot 210, was filled by any passive or nominalisation suffix, and does not concern us here. The other post-nuclear slots, with the particles able to fill them is shown in the following Table:

Nucleus	**220**	**230**	**240**	**250**	**260**	**270**
	(manner)	**(directional)**				**(locative)**
Base(s)	rawa	mai	ana	anō	hoki	nei
	tonu	atu	ai			nā
	kē	ake				rā
	noa	iho				
	kau					
	koa					
	pea					
	mā					

Table 1: Particles following the base in Bigg's scheme

Biggs revised this order in his later work, by proposing the following scheme (1998:155):

± Manner Particle ± Directional ± Locative ± anō ± hoki or ana or *ai*

Although the revised version suggests that only one of *hoki, ana* and *ai* can appear in a particular phrase, he did include the following example:

1029 .. kia riro ai hoki ..

.. that may also be taken accordingly (1998:156).

In his grammar text, Harlow grouped the post-posed particles as follows (2001:86):

manner particles	directional particles	locative particles	'others'
kau	mai	nei	anō
kē	atu	nā	hoki
mā	ake	rā	anake
noa	iho	ai	koa
rawa		ana	rānei
tonu			pea

Table 2 Harlow's post-posed particles

Harlow's order is: manner particle, directional particle, locative particle, and *anō, hoki, anake, koa, rānei,* and *pea,* which 'generally occur in that order, if they appear pair-wise at all' (2001:86). On the 'others' he further stated:

> It is difficult to be precise about the relative ordering of the last group, and there is some variation, for instance both *pea hoki* and *hoki pea* are found. However, the following pairings of the particles of the last set do occur: *rānei pea, anō hoki, koa pea, anō pea, anake pea* (2001:86).

Biggs and Harlow group and order the post-head particles differently. Nor do they agree on the location of *ai*. Harlow also included two more particles than Biggs, *anake* and *rānei*. Clearly this topic requires revisiting. The summary which follows is based on an analysis of the sentences in my corpus of narratives.

The manner particles and *mā*

Manner particles are adverbs which form a set for three main reasons: (a) They never occur as the head of a phrase, (b) they all occupy the same position in the phrase, and (c) they all show agreement when following a passive verb. In the following example, *rawa* shows agreement with the passive verb *kitea* 'be seen':

1030 Kite-a rawa-tia ake kua mui-a e te iro.
find-PASS EMPH-PASS DIR TAM infest-PASS by the maggot

It was found to be infested with maggots. (Jones and Biggs 1995:249)

Mutu-Grigg has argued that only *kau, kē, noa, tonu,* and *rawa* should be considered as manner particles (1982:15). She observed that these are the only members of Biggs's slot 220 which undergo agreement and that *koa*, *mā*, and *pea* turn up elsewhere in the phrase. Following Mutu-

Grigg, only these five are considered as manner particles in the present work, and *koa* and *pea* are discussed separately.

Without exception the manner particle always directly follows the base in my corpus. Manner particles also occur quite freely with most of the other post-head particles. Over half of my sentences had some other particle following the manner particle, the commonest being a directional particle:

1031 Mutu rawa ake, kua pō. (Grey 1928:122)
ended finally DIR TAM night

By the time they were finished, it was night.

Harlow included *mā* in his list of manner particles, even though it does not undergo agreement (2001:89). The inclusion of *mā* could be justified on the basis that it only occurs in NPs and could not be expected to show agreement. *Mā* 'and others' is used after personal nouns or nouns of address to indicate the inclusion of unspecified others:

1032 E hoa mā, kāore tērā i hoki mai ki a Kupe.
VOC friend &others NEG that TAM return DIR to PER Kupe

Friends, that (bird) never returned to Kupe. (Biggs 1997:93)

In all 130 examples of *mā* in my corpus the particle directly follows the base. Very few other post-head particles co-occur with *mā*, so it is problematic specifying exactly where *mā* should be located. However, any other particle invariably follows *mā* when they do co-occur:

1033 .. e rau hoa mā nei ..
VOC many friend &others LOC

.. my many friends .. (Jones and Biggs 1995:259)

Mā does not appear to co-occur with the manner particles.

Katoa

Katoa 'all' appears freely in the post-head position modifying both nouns and verbs with roughly equal frequency in my corpus. William's Dictionary defined *katoa* as an adjective or an adverb (1971:104) whereas Harlow classified it as a noun (2001:45). Bauer considered *katoa* to be in a class of its own because of its unique ability to 'float' from the subject NP it modifies to the post-head position of the VP (Bauer 1997:291), as in the following:

1034 Hoki katoa mai ai ngā Māori e haere nei ki tāwāhi? (Karetu 1991:134)
return all DIR ai the(pl) Māori TAM move LOC to overseas

Do all Māori who are going overseas come back?

Katoa always directly follows the base in my corpus. It does not appear to co-occur with the manner particles in my corpus. Nor does it co-occur with *mā* or *anake* for obvious semantic reasons. It is followed by any other particle with which it co-occurs, such as *mai* in 1034, and *ai* in the following:

1035 Ko te mate i mate katoa ai te tangata tae noa ki ngā tamariki.
EQ the disaster TAM dead all ai the people reach freely to the(pl) children

A disaster in which all are killed including children. (Ngata and Te Hurinui 2005:134)

Like the manner particles, *katoa* shows agreement with passive verbs:

1036 Ka tatau a Māui, kite-a katoa-tia ā.rātou kai e ia.
TAM count PER Māui see-PASS all-PASS their(pl) food by him

Māui counted it, and he saw all of their food. (Reedy 1993:87)

In all classical examples in my corpus *katoa* shows this agreement. This is also the preferred pattern in modern texts, although the following example suggests that the agreement may no longer be obligatory:

1037 E noho-a katoa ana e te tangata ēnei wāhi.
TAM live-PASS all TAM by the person these area

These areas were all already occupied. (Clother 2002:93)

Analysis of *katoa* appears to present a few problems. Firstly, no other base occurs in so few examples where it is the lexical head of its phrase. Secondly, it rarely (if ever) exists as a non-anaphoric base. That it can function as a lexical head tends to support its designation as a base, although particles such as *tērā* can act as substantives, so the evidence is hardly compelling.

The directional particles

These particles always directly follow a manner particle when they co-occur in my corpus:

1038 Ka mea mai a Māui, ‘Āe, me haere kē atu au’.
TAM say DIR PER Māui yes TAM move diff DIR I

Māui relied, ‘Yes, I had better go away. (Biggs 1997:11)

1039 Whanga noa mai nei au ki a koe, tē hohoro ake.
wait freely DIR LOC I ACC PER you NEG quick DIR

I waited a long time for you there, but you didn't come. (Orbell 1992:103)

The only other particle that can be located before a directional particle is *ana,* and then only with *mai* as discussed in the next section.

Ana

Ana is only found modifying verbs. In my corpus it always follows a manner particle, or *katoa* when they co-occur. It also invariably follows the directional particles *atu, ake,* and *iho* when they co-occur:

1040 .. pakaru kē atu ana ..
broken diff DIR TAM ..

.. breaks through .. (Biggs 1997:99)

However it is not unusual to find textual examples where *ana* precedes *mai*:

1041 E whakaae ana mai rātou kia haere tāua.
TAM agree TAM DIR they TAM move we

They agreed that we should visit them. (Orbell 1992:30)

My corpus contains 92 such examples, compared to 342 sentences with the order of *mai ana.* Older texts are more likely to show the *ana mai* ordering. Seventy four of the examples with *ana mai* come from classical texts, which represents one third of the classical examples where these two particles co-occur. In comparison over 90% of the co-occurrences in modern texts have the order *mai ana.* Although it is tempting to hypothesise that the two orders are due to differences in dialect, the following two extracts are from the same manuscript:

1042 Nā, ka rangona anō e rātou te waha o te kurī rā e au tonu **mai ana** ki a rātou. (Grey 1928:102)

Well, they again heard the mouth of that dog barking to them.

1043 Ā, ko ētahi atu e karanga **ana mai**, 'Hei korā rā he pā mō tātou'. (Grey 1928:102)

And, some others were calling, 'There will be a fort for us'.

Consultants could distinguish no difference in meaning between *mai ana* and *ana mai*. It appears that the relative ordering of *mai* and *ana* is somewhat flexible, with the preference being made probably on stylistic grounds.

As *ana* is said to occupy the same position in the phrase as the locative particles it is claimed that they can not co-occur (Bauer 1997:365), but rare counter examples can be found. The locative particle always follows *ana* in these cases, appearing to have an emphatic function which will be discussed below. An example follows:

1044 Haere tonu atu i te huanui e mārō atu ana **nā**.
move cont DIR at the path TAM stretch.out DIR TAM EMPH

Go straight along the path that stretches out in front of you. (Reedy 1993:81)

The locative particles

The locative particles *nei, nā,* and *rā* always follow a manner particle, *katoa*, and a directional particle when they co-occur in my corpus. All combinations of locative and directional particles are possible:

1045 Ka rere tonu mai nei ngā waka ki tēnei motu
TAM sail immediately DIR LOC the(pl) canoe to this island

Then the canoes came on to this island. (Biggs 1997:143)

In some instances a locative particle appears later in its phrase than expected. In particular their position relative to the emphatic particles *anō* and *hoki* appears to be somewhat variable. The following table contains data on the relative location of the locative particles with respect to *anō* and *hoki* when they co-occur in my corpus of narratives:

Emphatic Preceding		**Locative Particle**	**Emphatic Following**	
anō	**hoki**		**anō**	**hoki**
1	0	**nei**	37	15
1	0	**nā**	7	6
15	10	**rā**	45	19

Table 3 Locative particles and emphatic particles *anō* and *hoki*

For *nei* and *nā* the preference is for the locative particle to precede either of the emphatic particles. The situation with *rā* requires further comment. From a narrative by Mohi Ruatapu is the following example:

1046 E tama, koukou-a ake hoki rā tōku māhuna.
VOC son anoint-PASS DIR also EMPH my head

Boy, anoint my head as well. (Reedy 1993:40)

Rā does not appear to have its usual deictic function in this example. Instead it appears to be acting as an emphatic. This is explored in the next section.

Emphatic *nei*, *nā*, and *rā*

At least some of the data from Table 3 could be accounted for by proposing a set of homophonous emphatic particles (henceforth all represented by 'emphatic *rā*'). This is not an entirely original hypothesis. Bauer suggested that *rā* could function as an emphatic (1997:318). Her proposal was based on the rare co-occurrence of *rā* with either *nei* or *nā*, but she not consider that *nei* and *nā* could also act as emphatics.

Four arguments are presented in support of this hypothesis. Firstly, as Bauer observed, the locative particles can co-occur with each other without any apparent syntactic contradiction (although such examples are indeed rare):

1047 Mā ngā tamariki **nā rā** e kawe he wai.
belong the(pl) children DIR EMPH TAM carry a water

Those children there will bring some water. (Reedy 1993:51)

1048 .. koirā i takea mai ai te kōrero **nei nā**, 'te kete rukuruku a Whakaotirangi'.
that.is TAM originate DIR ai the saying DIR EMPH the basket small of Whakaotirangi

.. hence the saying 'the small food basket of Whakaotirangi'. (Jones and Biggs 1995:53)

Secondly, *rā* (at least) can follow *ana* and appears to have the semantic force of an emphatic:

1049 E hāpai-nga ana **rā** hoki e te karakia.
TAM lift-PASS TAM EMPH also by the prayer

For he was born up by karakia. (Reedy 1993:41)

1050 E pēnei kē iho ana **rā**, 'Haere!'
TAM like.this diff DIR TAM EMPH move

This is what I heard, 'Go!' (Biggs 1997:259)

Thirdly, the locative particles can occur later in the phrase than expected, as noted above. Most interesting are the examples where a locative particle follows one of the emphatic particles *anō* or *hoki*.

1051 Tēnei anō nei ..
this exactly EMPH

Here I am .. (Jones and Biggs 1995:315)

Lastly, all three locative particles can co-occur with the demonstratives *tēnei, tēnā,* and *tērā*. This seems semantically redundant unless *nei, nā,* and *rā* are providing some role other than their usual deictic function:

1052 Ko ngā mōrehu kaumātua kei.te mōhio ki te āronga o **tēnei** tira **rā**.
TOP the(pl) survivor elder TAM know ACC the purpose of this group EMPH

The old men knew the purpose of his journey. (Biggs 1997:173)

1053 Ina te kino o te haka a **tēnei** iwi **nā**! (Grey 1928:55)
for the bad of the dance of this people EMPH

How terrible the dancing of this tribe is!

1054 .. hei whakatau-nga mō **tēnei** wā **nei**.
as settle-NOM for this time EMPH

.. as a settlement for now. (Biggs 1997:219)

Hare Hongi has suggested that *tēnei* and *te .. nei* do not confer the same meaning in their phrases:

> A change in the position of the article te and its fellow nei materially alters the sense in such phrases as:
> Nō mātou tēnei kāinga = this home is our own
> Nō mātou te kāinga nei = this home is (one of) our own
> Nō mātou nei te kāinga = this home is ours (and not theirs) (Stowell 1911:46)

He appears to have argued that *nei* adds special emphasis to the preceding word, whether it be *te, kāinga,* or *mātou*. According to Hongi the forms have subtle differences in meaning. Current wisdom is that the demonstratives (*tēnei* etc.) and the split forms (*te .. nei* etc.) are semantically identical although the question then arises as to why two structures are required. Whether in fact these do have different meanings would require further study, but the possibility that they are different is certainly supported by the premise of an emphatic function for the locative particles.

It appears that the locative particles can have a role as emphatics (emphatic *rā*). *Rā* is the most common of these to function as an emphatic.

Ai

Ai almost always appears in VPs in my corpus, where it occupies the same position usually taken by a locative particle, i.e. following any manner and/or directional particle. Note that although *mai* could follow *ana* it does not appear to be able to follow *ai*:

1055 .. hoki tonu mai ai te nui-nga ki te kāinga (Karetu 1991:134)
return still DIR ai the large-NOM to the home

.. the majority still usually return home

Ai does not co-occur with *ana.* Nor does it co-occur with either *mā* and *anake*, which only appear in NPs. *Ai* rarely co-occurs with a locative particle and in such cases the locative appears to have an emphatic function as described in the previous section:

1056 .. ka haere ai rā i te tira o Karika.
TAM move ai EMPH with the travelling.party of Karika

.. he now travels with Karika's band. (Biggs 1997:161)

Ai co-occurs with all other post-head particles. It always follows *katoa* when they co-occur:

1057 He maunga ikeike ēnei, ngaro katoa ai i te hukarere.
CLS mountain lofty these hidden all ai by the snow

They are high mountains, all covered with snow. (Biggs 1997:113)

In the classical texts there was a preference for *ai* to precede *anō*:

1058 .. kia rite ai anō ki āna tamariki.
TAM alike ai exactly to his(pl) children

.. so that they were just like his children. (Reedy 1993:60)

In modern texts the reverse order is more common, although my consultants could find no discernable difference in meaning:

1059 Mō āpōpō tīmata anō ai.
for tomorrow begin again ai

Let us make a fresh start tomorrow. (Mead 1999a:145)

The particle *hoki* follows *ai* in all examples from my database, of which the following is typical:

1060 Hoko ai hoki rātau i ngā maniūa mō te māra i Ōpotiki. (Waititi 1991:92)
buy ai also they ACC the(pl) manure for the garden at Ōpotiki

They also usually buy their fertilizer for the gardens at Ōpotiki.

Koa follows *ai* when they co-occur:

1061 Ka pura ōna kanohi, whakaware-a ai koa a Tū-whakararo .. (Grey 1928:32)
TAM plug his(pl) eye hinder-PASS ai EMPH PER Tū-whakararo

His eyes were blinded, and Tū-whakararo was totally distracted ..

Rānei follows *ai* when they co-occur:

1062 .. i tā-ia ai, i tuhi-a ai rānei ..
TAM print-PASS ai TAM write-PASS ai or

.. printed or written (Ngata 1959:280)

Pea follows *ai* when they co-occur:

1063 .. e mutu ai pea tana amuamu. (Huia 1997:27)
TAM ended ai perhaps his complain

.. that would perhaps end his complaints.

Ai also occasionally occurs modifying bases that are marked by either *te* or a possessive determiner (and are therefore regarded as NPs). The following examples show the position of *ai* in these phrases:

1064 Hei āwhea rā te tae mai ai?
at when DIR the arrive DIR ai

When will they arrive? (Biggs 1997:24)

1065 .. i tō.rātou kāhaki-nga ai
from their abduct-NOM ai

.. because they had been carried off (Reedy 1993:65)

Anake

Anake 'only' is a quantifier that only occurs in NPs. It follows manner, directional, and locative particles when they co-occur:

1066 Ko te wahine rā anake i waiho, ko Hine-a-te-kawa.
TOP the woman LOC only TAM remain EQ Hine-a-te-kawa

Only the woman, Hine-a-te-kawa, was left. (Reedy 1993:30)

Anake precedes other particles, such as *hoki* and *pea*:

1067 .. he pō anake hoki ngā tae-nga mai.
a night only EMPH the(pl) arrive-NOM DIR

.. she came to him only at night. (Biggs 1997:65)

1068 I uta anake pea tēnei hau e tangi ana.
At inland only perhaps this wind TAM resound TAM

It seems this wind was only blowing on the shore. (Tremewan 2002:237)

Emphatic *rā* also can follow *anake*:

1069 Nōku anake rā te tupuna i kau mai, ko Hinemoa,
mine only EMPH the ancestor TAM swim DIR EQ Hinemoa

Mine is the ancestor who swam here, Hinemoa, (Biggs 1997:123)

Anō

Anō occurs as both a sentence adverbial and a post-head particle (Bauer 1997:318). It is the second of these that concerns us here. It is freely found modifying both verbs and nouns and is typically located after a locative particle:

1070 E tupu nei anō ināianei.
TAM grow LOC still now

It is still growing there today. (Biggs 1997:21)

Emphatic *rā* may follow *anō* as in 1051, and there are 25 such examples in my corpus. This compares with 119 sentences where the locative particle precedes *anō* as in 1070.

Anō may either follow or precede *ai* as described above. It generally is located after *ana*:

1071 Kāti te tangi, e hoki ana anō ahau.
stop the cry TAM return TAM again I

Stop crying, I'm going back. (Biggs 1997:51)

My corpus does contain four sentences where *anō* precedes *ana*, although these are all from the same text and may be due to author peculiarity:

1072 E iti anō ana te tamaiti, e waha tonu i te tuarā.
TAM small still TAM the child TAM carry still on the back

The baby was still small and being carried on her back. (Jones and Biggs 1995:81)

This text also has five sentences with the more usual order:

1073 Whakahoki-a ana anō te kaumātua rā ki.te tiki.
return-PASS TAM EMPH the elder LOC TAM fetch

The old man went to fetch them. (1995:371)

Koa, *rānei*, and *pea* also always follow *anō* in my corpus:

1074 Ko koe anō koa a Whakatau. (Grey 1928:50)
EQ you EMPH EMPH PER Whakatau

You indeed are Whakatau.

1075 He wā anō pea.
a time again perhaps

Another time perhaps. (Reedy 2001:167)

Hoki

The particle *hoki* occurs freely with all other post-head particles in both verbal and non-verbal phrases. *Hoki* follows all other particles except *koa, rānei*, and *pea*:

1076 Ka mea ētahi, 'Ko wai hoki koa ka tohu?' (Grey 1928:124)
TAM say some FOC who EMPH indeed TAM think

Some of them said, 'Whoever would have thought it?'

1077 .. he taringa hoki pea nō ngā tamariki nei ..
a ear EMPH perhaps belong the(pl) children LOC

.. those boys didn't take any notice .. (Reedy 1993:111)

Emphatic *rā* may also follow *hoki*:

1078 He aha hoki rā i kore ai e mau ki tāku? (Grey 1928:19)
CLS what EMPH EMPH TAM NEG ai TAM hold ACC mine

Why on earth doesn't it stick to mine?

Biggs proposed the preferred order of *anō hoki* if these should co-occur (1973:47). Certainly the great majority of examples I have found bear this out. Out of 122 co-occurrences of these two particles all but two have the order *anō hoki*:

1079 .. he āhua kē hoki i tētahi rā, he āhua kē anō hoki i tēnā rā. (Grey 1928:44)
a form diff also at a day a form diff also EMPH at that day

.. a different form one day to his appearance another day.

Koa

Koa 'indeed' (also written *koā*) is an emphatic particle and a contrastive sentence adverb (Bauer 1997:329). The emphatic *koa* is found in verbal and non-verbal phrases, and is usually located last in its phrase except when followed by *pea*:

1080 Mawehe kau anō koa .. (Grey 1928:2)
separated excl EMPH indeed

As soon as they were separated ..

Koa can occasionally precede *hoki,* without any obvious difference in meaning:

1081 Nā wai koa hoki te whakatahe nei .. (Grey 1928:7)
belong who indeed EMPH the abortion LOC

Who indeed does this abortion belong to ..

Rānei

Rānei 'or' 'can be used for coordinating alternatives' (Bauer 1997:556). It is found in verbal and non-verbal phrases. In my corpus it is always the last word in its phrase. Harlow claims that *pea* should follow *rānei* (2001:86) although I have found no textual examples to support this. The following examples show that *rānei* will follow other post-base particles:

1082 .. kia waiho noa iho rānei te wera-nga o tō.rātou waka .. (Grey 1928:69)
TAM leave freely down or the burn-NOM of their canoe

.. or just leave the burning of their canoe ..

1083 Kei runga rānei, kei raro rānei, kei tawhiti atu rānei i a tātou. (Grey 1928:6)
At above or at below or at distant DIR or from PER us

Above, below, or far from us perhaps.

Pea

Pea 'perhaps' is a sentence adverbial indicating uncertainty, and is found in both verbal and non-verbal phrases. It is located at the end of the phrase, following any other post-head particle:

1084 Ka māha hoki pea ka kite-a te wāhi i kimi-hia mai ai
TAM satisfied EMPH perhaps TAM see-PASS the place TAM search-PASS DIR ai
e rātou. (Grey 1928:102)
by them

Perhaps they were truly satisfied to have discovered the place they were looking for.

Summary

As far as I can determine (given the small number of co-occurrence of some of the particles) the preferred order for the particles located after the head of a phrase is as follows:

1	2	3	4	5	6	7	8	9
kau	**mai**	**nei**	**anake**	**anō**	**hoki**	**emphatic rā**	**koa**	**rānei**
kē	**atu**	**nā**						**pea**
noa	**ake**	**rā**						
tonu	**iho**	**ai**						
rawa		**ana**	**(mai)**					
mā								
katoa								

Table 4: Order amongst the post-head particles

The order in this table must be seen as strongly preferred tendencies rather than inviolate rules. In general:

- *Mā* and *anake* are found only in NPs and do not appear to co-occur with a manner particle or *katoa.*
- *Ai* is mostly found in VPs and does not co-occur with *ana*, *mā*, *anake*, and only very rarely with a locative particle.
- In classical texts the order *ai anō* was preferred, whereas in modern texts *anō ai* is more common.
- *Ana* is only found in VPs, and does not therefore co-occur with *mā*, *anake.* Nor does it co-occur with *ai*, and only rarely with a locative particle.
- When a locative particle, particularly *rā*, occurs 'out of position' or co-occurs with either *ana* or *ai* then it appears to be acting as an emphatic.
- *Mai* is able to either precede or follow *ana* with no apparent semantic difference.
- The order *anō hoki* is generally preferred although rare examples with the order *hoki anō* can be found.

2.4 Semantic roles

Semantic roles are the different ways in which the entities in a sentence can participate in an action or state described by the verb (Wardhaugh 2003:75). They are considered to be universal features of languages although the way they interact with grammatical functions is language specific (Finegan *et al.* 1992). Arguments are the obligatory roles of a verbal sentence. In many grammars the term adjunct is used to refer to all other roles. It can be useful to distinguish between core roles, which are under the lexical control of the verb, and peripheral roles, which may be considered as circumstantial to the action (Foley and Van Valin 1985:301).

A canonical transitive verb is a two argument verb with obligatory core roles of agent and patient/theme. In the following example, the verb *patu* 'to beat' licenses Pita as agent and *te whāriki* as patient:

1085 Ka patu a Pita i te whāriki.
TAM beat PER Pita ACC the mat

Pita beats the mat.

The verb *patu* also licenses an optional (core) instrument role:

1086 Ka patu a Pita i te whāriki **ki te rākau**.
TAM beat PER Pita ACC the mat with the stick

Pita beats the mat with a stick.

Although core roles are predictable because of the meaning of the verb, peripheral roles are always optional, and set the scene of the action. The action described by 1086 may have occurred yesterday, a scene setting constituent that is independent of the action described by the verb:

1087 Ka patu a Pita i te whāriki ki te rākau **i nanahi**.
TAM beat PER Pita ACC the mat with the stick at yesterday

Pita beat the mat with a stick yesterday.

Grammars appear to vary in the roles they assign to their languages. The core roles referred to in this thesis are agent, patient, experiencer, instrument, source, goal, benefactor, and inner location (the location of the participant). The peripheral roles referred to are outer location (the temporal or spatial location of the event as a whole), reason, means, and comitative (something which accompanies a participant). It is often necessary to refer to roles because *ai* interacts in a complex way with them.

2.5 Grammatical functions

There are three grammatical functions for noun phrases in Māori; subject, object, and oblique (Bauer 1997:17-8). These can be distinguished both semantically and syntactically.

Both grammatical subject and object are primitives that are singled out by distinctive form and function. The subject is almost always the only unmarked NP in the sentence and the only argument that can undergo *ko* fronting. Object is the NP that is introduced by the direct object markers *i* or *ki,* which are glossed ACC in this work. Object is distinguished from similarly marked PPs by its ability to be object incorporated by the verb, and by its realisation as the surface subject in a passive transform.

Obliques are the NPs found in PPs and are the complement of the preposition. They generally do not have special syntactic processes. Both core and peripheral roles may be realised as obliques. An important observation is that any oblique that is a core role will be located to the right of the verb that licenses it. In contrast, obliques that are peripheral roles are semantically dispensable with respect to the action described by the verb (Wardhaugh 2003:84). Peripheral obliques can, and indeed often are, fronted.

Consider 1087 with its grammatical functions indicated:

Ka patu [a Pita]$_{Su}$ [i te whāriki]$_{DO}$ [ki te rākau]$_{Obl}$ [i nanahi]$_{Obl}$

The direct object can be incorporated into the verb:

Ka patu whāriki a Pita ki te rākau i nanahi.

As the *ki* phrase, the oblique in the core role of instrument cannot be located before the verb:

*Ki te rākau ka patu a Pita i te whāriki i nanahi.

The oblique in the peripheral role of location may be located before the verb with no further changes to the sentence:

I nanahi, ka patu a Pita i te whāriki ki te rākau.

Grammatical functions usually express semantic roles in a highly systematic way (Fromkin *et al.* 1999:169). For obliques there is a strong correlation between a semantic role and its realisation as a PP. Each role is filled by a NP introduced usually by a specific preposition. For example instrument is generally introduced by *ki, s*ource by *i,* and goal by *ki*.

The distinction being made here between obliques that fulfil core and peripheral roles proves useful when describing particular syntactic processes, such as adverb fronting and relative clause formation, both of which involve the particle *ai*.

2.6 Sentence structure

Both simple verbal and non-verbal sentences will be described, followed by a description of complex sentences. In this section the term sentence will be used to refer to both simple and complex sentences, whereas the term clause will refer to the constituents of a complex sentence. The term utterance will be used when considering the use of a sentence in context. Sentences combine together in a particular context to form discourse.

2.6.1 Simple non-verbal sentences

Non-verbal sentences do not contain a VP in their core structure. They consist of a predicate and a subject:

predicate + subject

The subject is an unmarked NP, and the predicate will be a PP or a NP. There are a number of different types of non-verbal sentences. A few examples follow, although this is not an exhaustive representation.

Equational or identity sentences contain two definite NPs, asserting that they are identical. The predicate is introduced by the preposition *ko*.

1088 Ko te tangi tēnei.
EQ the cry this

This was the cry. (Tremewan 2002:13)

Classifying sentences contain one definite NP and an indefinite NP introduced by *he*. They assert that the subject belongs to the class of objects named in the *he* phrase or has the quality described by it:

1089 He aruhe a Haumia-roa.
CLS fern.root PER Haumia-roa

Haumia-roa is fern root. (Biggs 1997:187)

1090 He nui ngā kokoru.
CLS many the(pl) bay

The bays are numerous. (Biggs 1997:15)

Existential possessive sentences assert that the entity or quality in the predicate belongs to the subject which is expressed as a *t*-class possessive:

1091 He tāne tāku!
CLS husband mine

I have a husband! (Jones and Biggs 1995:117)

Locational sentences indicate the spatial or temporal location of the subject:

1092 Kei tāwāhi te whenua mō tātou.
at overseas the land for us

The land for us is overseas. (Matiu and Mutu 2004:34)

1093 Ā te Rāhina te whakamātautau Māori.
at the Monday the exam Māori

The Māori exam is next Monday.

Possessive non-verbal sentences have PPs introduced by *nā/nō* for realised possession and by *mā/mō* for unrealised (future) possession:

1094 Nāku kē te tāne.
mine diff the man

The man is mine. (Jones and Biggs 1995:117)

2.6.2 Simple verbal sentences

The unmarked order of simple verbal sentences in Māori is V S (O). Intransitive verbs are one argument verbs and the unmarked NP is the subject. For action intransitives the subject is an agent:

1095 Kei.te oma a Piripi. (Waititi 1991:129)
TAM run PER Piripi

Piripi is running.

For neuter verbs the subject is usually a patient:

1096 Kua hinga a Piripi. (Waititi 1991:129)
TAM fallen PER Piripi

Piripi has fallen.

Transitive sentences are two argument verbs. In the unmarked sentence these are realised as subject and object respectively. The direct object in the following sentence is marked by *i*:

1097 Ka patu te tāne i a Rukutia.
TAM beat the man ACC PER Rukutia

The man beat Rukutia. (Tremewan 2002:261)

All simple verbal sentences can be expanded by oblique phrases. The following sentence has an oblique phrase introduced by *i* which indicates cause:

1098 Ka auē ōna tuākana i te mataku.
TAM cry his(pl) elder.brothers from the fear

His elder brothers cried out in fear. (Reedy 1993:23)

Verbs of motion license obliques that indicate source and goal:

1099 Ka heke iho ia i te pā ki tātahi ..
TAM descend DIR she from the pā to beach

She came down from the pā to the beach .. (Ruatapu 1966:22)

There is considerable flexibility in the order amongst the various phrases located after the verb. The only requirement appears to be that a source phrase must precede a goal phrase, as in 1099.

2.6.3 Marked verbal sentences

Transformations have been commonly used in the literature to describe how core sentence structures can be converted into their non-canonical counterparts (Huddleston and Pullum 2002:48). These transformations are usually described by listing the steps required to convert one structure into another. However, attempts to show that transformations are psychologically bound have been inconclusive, showing the need to 'avoid underlying representations that are too abstract and difficult to justify in terms of surface forms' (Crowley *et al.* 1995:406).

Transformations generally change the meaning of the utterance (Aitchison 1999). The view taken here is that the purpose of an alternate structure is to package the information in a different way, and that transformations are an economical strategy for describing the differences in structures between variants. Transformations are not intended here to represent real mental processes. It is more useful to consider the communicative function of a variant structure.

2.6.3.1 The Passive Structure

In an active transitive sentence with a canonical transitive verb the agent is the subject and the patient the direct object:

1100 I kai a Wiremu i te hēki.
TAM eat PER Wiremu ACC the egg

Wiremu ate the egg.

In its passive counterpart, the verb has a passive suffix, the patient is the subject, and the agent (where expressed) is an oblique PP introduced by *e*:

1101 I kai-nga te hēki e Wiremu.
TAM eat-PASS the egg by Wiremu

The egg was eaten by Wiremu.

The passive is the norm in Māori narratives when transitive actions are being described. All transitive verbs, and some action intransitives, may form passive structures. Māori passive sentences are foregrounding passives in the sense defined by Foley and Van Valin (1985:334) in that they are concerned with promoting the undergoer of the action to the prominent nominative argument position.

2.6.3.2 The actor-emphatic

The actor emphatic is a construction unique to Eastern Polynesian languages (Harlow 1996:31). It is only available to canonical transitive verbs. The agent is marked by *nā* for the past or *mā* for the future and the verb is marked by *i* or *e* respectively. The patient is realised as an unmarked NP. The verb is in its active form. Sentence 1100 as an actor emphatic becomes:

1102 Nā Wiremu i kai te hēki.
belong Wiremu TAM eat the egg

William ate the egg.

Bauer argues that these sentences are best viewed as non-verbal with the *nā* or *mā* phrase acting as the predicate and the remainder of the sentence its subject (1997:503):

[Nā Wiremu] $_{\text{Predicate}}$ [i kai te hēki] $_{\text{Subject}}$

Certainly they form negatives with *ehara* ‘not’, the usual negator for non-verbal sentences:

1103 Ehara nā Wiremu i kai te hēki.
NEG belong Wiremu TAM eat the egg

William didn’t eat the egg.

In this analysis the subject of the subject clause is optionally raised to become the surface subject of the predicate phrase, with a strong preference to raise a pronoun subject as in the following:

1104 Nā wai koe i āwhina?
belong who you TAM help

Who helped you?

The purpose of this construction is to foreground the agent, which is generally new information. It principally brings the agent into focus. It also promotes the patient to the nominative case, making it available for subject related syntactic process such as *ko* fronting. *Ai* is not involved in actor emphatic sentences.

2.6.3.3 Subject *ko* fronting

Fronting a sentence constituent gives it emphasis. The subject in both verbal and non-verbal sentences can be emphasised by *ko* fronting. Consider the following active transitive sentence:

1105 I whai te kurī i te waka.
TAM chase the dog ACC the car

The dog chased the car.

The subject can be emphasised by *ko* fronting, a common strategy in narratives:

1106 Ko te kurī i whai i te waka.
TOP the dog TAM chase ACC the car

The dog chased the car *or* It was the dog that chased the car.

Chung claimed that the object could also be *ko* fronted and in such cases the particle *ai* was required after the verb (1978:72). Consider the following example in which the object of the experience verb *rongo* appears to be *ko* fronted:

1107 Ko te kōrero o tēnei tangata, o Whakatauihu, i rongo ai mātou. (Grey 1928:174)
TOP the story of this man of Whakatauihu TAM hear ai we

It was the story of this man, Whakatauihu, that we heard.

This is the only example where an object has been *ko* fronted that I have been able to find from a corpus of more than 300 *ko*-initiated sentences extracted from narratives. My consultant felt that the sentence above was 'incomplete' and that in formal writing it should have *tēnei* 'this' inserted after *ko*, producing a cleft sentence, with *ai* as part of a highlighted relative clause:

1107a. Ko tēnei te kōrero o tēnei tangata o Whakatauihu, **i rongo ai mātou**.
TOP this the story of this man of Whakatauihu TAM hear ai we

This was the story of this man Whakatauihu, that we heard.

The following example contains a goal phrase that appears to have been *ko* fronted.

1108 Ko te whare i haere ai a Ihenga rāua.ko Rongomai, me tō.rāua hokowhitu.
TOP the house TAM move ai PER Ihenga and Rongomai and their army

It was the house that Ihenga and Rongomai went to, together with their followers. (Biggs 1997:133)

Again my consultant felt that it required the insertion of *tēnei*, after either *ko* or *whare*, with *ai* again part of a relative clause:

1109 Ko te whare tēnei **i haere ai a Ihenga rāua.ko Rongomai**,
TOP the house this TAM move ai PER Ihenga and Rongomai
me tō.rāua hokowhitu
and their army

This was the house that Ihenga and Rongomai went to, together with their followers.

It appears that *ko* fronting is only available to the grammatical subject of the clause. *Ko* fronting of the subject does not involve *ai.*

2.6.3.4 Fronting other sentence constituents

The direct object can not be fronted. The patient role can be emphasised by *ko* fronting when it is the subject of a passive sentence:

1110 Ko ēnei tāngata katoa e utu-a ana.
TOP these(pl) people all TAM pay-PASS TAM

All of these people are paid. (Biggs 1997:203)

The patient can also be *ko* fronted as the unmarked NP in an actor emphatic construction:

1111 Ko taua waka nā Ngāti Pāoa i tārai i 1769.
TOP that canoe belong Ngāti Pāoa TAM hew at 1769

That canoe was built by Ngāti Pāoa in 1769. (Jones and Biggs 1995:329)

Obliques that are licensed by the verb can also not be fronted. They can be emphasised by becoming the *ko*-fronted subject of a non-verbal sentence with what Chomsky has called a 'designated representative' (Hawkins 1979:59) filling the predicate position. Any verbal component would then be found as a relative clause. Consider the following sentence which contains an oblique instrument phrase *ki te toki* 'with an adze':

1112 Ka tārai-a te waka ki te toki.
TAM hew-PASS the canoe with the adze

The canoe was hewed out with an adze.

The instrument can be *ko* fronted as the subject of a cleft sentence whose predicate is filled by the designated representative *mea* 'thing'. The rest of the sentences is realised as a relative clause which contains obligatory *ai*:

1113 Ko te toki te mea i tārai-a ai te waka.
TOP the adze the thing TAM hew-PASS ai the canoe

The adze (was the thing that) hewed out the canoe.

This process is also available to inner location and time, where the designated representatives are usually *wāhi* 'place' and *wā* 'time':

1114 Ko te pō te wā e tangi ana te ruru.
TOP the night the time TAM cry TAM the owl

Night is the time when the owl cries.

Most peripheral obliques can be readily located before the verb, and indeed some prefer this position. Sentences with fronted adverbials often require *ai* after the verb. This topic will receive more attention in a Chapter 4. An example with a fronted time phrase is given here for completeness:

1115 Āhea rawa tō tāne hoki mai ai?
when EMPH your husband return DIR ai

When will your husband return? (Best 1925:997)

2.6.4 Complex sentences

A clause has the same basic structure as the simple sentences described above. Complex sentences contain more than one clause. The clauses are either coordinated or one is embedded within the other.

2.6.4.1 Coordinated sentences

In coordinated sentences two or more clauses of equal status are joined together. The three types of coordination are (a) additive, (b) alternative, and (c) contrastive.

(a) Additive coordination usually occurs through juxtaposition of clauses (1116), although the coordinator *ā* is increasingly being used (1117):

1116 Ka tū ia i roto i te rūnanga, ka waiata i te waiata nei.
TAM stand she at in at the assembly TAM sing ACC the song LOC

She stood up in the assembly and sang this song. (Ngata and Te Hurinui 2005:28)

1117 Ka hoki tūreiti mai ia ki te kāinga, ā, ka whakaoho i ahau
TAM return late DIR she to the home and TAM awoke ACC me
mai taku moemoeā. (Huia 1998:15)
from my dream

She came home late and woke me from my dream.

(b) Alternative coordination is usually marked by *rānei*:

1118 Ka hoki atu mātou ki te kāinga, ka noho mai i konei rānei?
TAM return DIR we to the home TAM stay DIR at here or

Are we returning home or staying here?

(c) Contrastive coordination is usually marked by *engari*:

1119 Kīhai a Tūpai i mate, engari ko tōna hoa, ko Ruawhārō, i mate.
NEG PER Tūpai TAM dead but TOP his companion TOP Ruawhārō TAM dead

Tūpai didn't suffer, but his companion Ruawhārō was afflicted. (Reedy 1997:48)

Ai is involved in what is arguably the additive coordination of certain imperatives. Specifically, if imperatives are juxtaposed, and the second imperative is dependent on the successful completion of the first, then this can be signposted by marking the dependent imperative with *ka* + *ai*:

1120 Hoake ki mua, **ka** whanga mai **ai** koutou i a mātou!
go to front TAM wait DIR ai you ACC PER us

Go along in front, then you may wait a little while for us! (Stowell 1911:213)

The *ka .. ai* combination asserts that the addressee must first get ahead before they can wait. This construction has some specific peculiarities and will be discussed in Chapter 5.

2.6.4.2 Embedded sentences

In an embedded complex sentence a subordinate clause is located inside another clause, the main clause. The subordinate clause plays some grammatical role within the main clause. Subordinate clauses are either complement, adverb, or relative clauses.

2.6.4.2.1 Complement clauses

Complement clauses (also called noun clauses) occupy the position of NPs in the main clause. They are generally the subject or the object of the verb in the main clause (henceforth main verb). In the following, the *kia* clause is the subject of the passive verb *kī-ia*:

1121 Ka kī-ia mai **kia kai**.
TAM say-PASS DIR TAM eat

They were told to eat. (Tremewan 2002:27)

In the following sentence, the *kia* clause is the object of the main verb *hiahia*:

1122 E hiahia ana ia **kia tope-a katoa-tia te ngahere**.
TAM want TAM he TAM fell-PASS all-PASS the forest

He wanted to chop down all the forest. (Reedy 2001:101)

Complements of verbs of wishing, such as in 1122 are of interest because they need to be carefully distinguished from *kia* purpose clauses, which may include *ai*. Compare the previous sentence with the following in which the *kia* segment is a purpose clause:

1123 Me haere tāua **kia kite ai tāua i tō.tāua whāea**!
TAM move we TAM find ai we ACC our mother

Let us go so that we can see our mother! (Mead 1996a:33)

Complement clauses do not involve the use of *ai*.

2.6.4.2.2 Adverb clauses

Adverb clauses function as adverbials in the sentence. There are a number of different types of adverb clauses. Examples are the purpose clause introduced by *kia* in 1123, the future time clause introduced by *kia* in 1124, and the conditional clause introduced by *mehemea* in 1125:

1124 **Kia mahaki rā anō te Kauae-o-Poua**, ka riro ai te whenua.
TAM loose simply the Jawbone-of-Poua TAM taken ai the land

When the jawbone of Poua becomes loose, then the land may be taken. (Mead and Grove 2001:213)

1125 **Mehemea i whakarongo rātou ki te reo o Māui**, e kore e kino
if TAM listen they to the voice of Māui TAM NEG TAM bad
te whenua.
the land

If they had heeded Māui's voice the land would not have been bad. (Reedy 1993:84)

An adverb clause may either follow or precede the verb in the main clause with each type having its preferred position. Some adverb clauses which can follow the verb constituent may be fronted for emphasis. This may also require the insertion of *ai* after the verb in the main clause, and this topic will be discussed in Chapter 4. An example with a fronted reason clause is included here for completeness:

1126 **Nā.te.mea kua pōuri mai te pō** i puta ai a Whare-tīpeti.
because TAM dark in the night TAM emerge ai PER Whare-tīpeti

Because it was dark, Whare-tīpeti escaped. (Jones and Biggs 1995:285)

2.6.4.2.3 Relative clauses

Relative clauses modify a noun in the main clause. The modified noun is called the head of the relative clause. In Māori the relative clause always follows its head, although not necessarily directly. In the following examples, the heads of the relative clauses are in bold and the relative clauses are underlined:

1127 Tēnā ngā **kanohi** <u>kua tikona e Matariki</u>.
that the(pl) eye TAM settle.upon-PASS by Pleiades

Here are the eyes affected by the Pleiades. (Broughton and Reed 1999:153)

1128 Ko te **ara** tērā <u>i whiti mai ai a Rongo-i-amo</u>.
EQ the path that TAM cross DIR ai PER Rongo-i-amo

That was the path by which Rongo-i-amo crossed over here. (Reedy 1997:58)

1129 I kite ake anō ia i te **tangata** <u>nāna i whiu iho te koikoi</u>.
TAM see DIR also he ACC the person his TAM throw DIR the spear

He also saw the person who threw the spear. (Jones and Biggs 1995:205)

1130 Ko tō.<u>rāua</u> **kāinga** <u>i noho ai</u>, ko Hawaiki.
TOP their home TAM live ai EQ Hawaiki

The place where they lived was Hawaiki. (Reedy 1993:34)

The sentences above represent the four different strategies for forming relative clauses in Māori. Two of these strategies often require the insertion of *ai* in their relative clauses. Relative clauses will be discussed in Chapter 4.

2.7 Emphasis: focus and topic

Pragmatic functions of a language are concerned with the way in which an utterance can fulfil different communicative purposes. Emphasis is a pragmatic function that brings a particular part of an utterance to the attention of the listener. This may be done by using special attention seeking constructions, such as those described in 2.6.3, by placing stress on a particular phrase, or by placing the phrase in a prominent position within the utterance. In Māori the extremities of the sentence are the positions of special emphasis. Any constituent that can be fronted will be especially noticed by the listener. The purpose of fronting may be to ensure that there is no doubt about which topic amongst a number of possibilities is being discussed or to promote new information. Emphasis may involve either topic or focus.

Topic is generally defined as what an utterance is about (O'Grady *et al.* 1993:237). It often expresses old information, with the remainder of the utterance giving information about that topic. Fronting for topicalisation ensures that information the listener already knows occurs first and any new information follows.

In Māori the topic is usually the subject of the sentence. A topic may be fronted and marked with the topic preposition *ko*, although this is not obligatory. In the following extract, the brothers are the topic of the discourse whereas their relative locations in the canoe is new information. The brothers are topicalised and a contrast is made between them:

1131 Ka whakaae mai te teina. Ka hoe rāua ki te moana, ā, tawhiti noa, ka ngaro a uta; kīhai rāua i kite mai i te tuawhenua. **Ko te teina** i te ihu, **ko te tuakana** i te kei o tō rāua waka.

The younger agreed to this. They paddled out to sea, so far out that after a while the shore was lost to sight and they could no longer see the mainland. The younger was in the prow of the canoe and the elder at the stern. (Orbell 1992:134)

Pearce has argued that a topic marked by *ko* must occur in the sentence-initial position, occupying the Force Head and have ‘the characteristics of a complementizer’ (1999:261).

Focus occurs when the attention of a listener is drawn to new information provided by an utterance. The focus is on that part of the utterance that contributes the most important information. Fronting for focus ensures that new information occurs first and that what follows will be discourse old. Questions are usually utterances that have focus as their pragmatic function. In the following extract, Uenuku hears someone walking on the roof of his house. The question, and its answer, focus on who could be doing this:

1132 Kātahi tērā, a Ruatapu, ka piki ki te tiki i tana taratahi. Ka rongo a Uenuku i te tapuae i runga i tōna whare, ka pātai ake, '**Ko wai** tēnei e takahi nei i te uru tapu o Uenuku?' Ka karanga iho, '**Ko wau**, ko Ruatapu.'

So then he, Ruatapu, climbed up to fetch his kite. Uenuku heard footsteps on top of his house and he asked, 'Who's this treading on Uenuku's sacred head?' He called down, 'It's me, Ruatapu.' (Reedy 1997:32)

2.7.1 Fronting subjects for emphasis

Harlow argued that a sentence with a *ko*-fronted subject has two readings, one where the subject is topicalised and the other where it is focussed (1996:31). Bauer argued along similar lines, admitting however that this was controversial (1997:666). Consider the following sentence:

1133 I kite a Hone i te tāhae
TAM see PER John ACC the thief

John saw the thief. (Bauer 1997:665)

The subject can be *ko* fronted, either for topic or focus:

1133a. Ko Hone i kite i te tāhae.
ko John TAM see ACC the thief

topic: John saw the thief (or, As for John, he saw the thief).

focus: It was John who saw the thief.

For *ko* topicalisation, Bauer proposes the following uncontroversial allocation of grammatical functions (note that the main stress is on Hone):

1133b. [Ko ˝Hone] $_{\text{Subject}}$ [i kite] $_{\text{Verb (Predicate)}}$ [i te tāhae] $_{\text{Direct Object}}$

In the case of the focus structure, she suggests that the *ko* phrase is the predicate of a non-verbal sentence and its subject a headless relative clause (note the stress on the verb):

1133c. [Ko Hone] $_{\text{Predicate}}$ [i ˊkite i te tāhae] $_{\text{Subject}}$

Harlow suggested that fronted focus and fronted topic structures are negated differently (2001:194). For 1133b, Hone as topic is already known to the listener, with the remainder of the sentence new information. According to Harlow's scheme, this sentence would be negated (in order to state what Hone didn't do) by leaving the *ko* subject phrase as it is and negating the rest of the sentence 'in the usual way' (2001:195), in this case with *kāore*:

1134 Ko Hone kāore i kite i te tāhae, (i moe tonu kē).
TOP John NEG TAM see ACC the thief TAM sleep still diff

John didn't see the thief, (he was still asleep).

In contrast, for 1133c Hone is in focus and new information. It is already known to the listener that someone saw a thief, and the focus is on this new information. To negate this, i.e. to state that it was not Hone who saw the thief, requires *ehara*:

1135 Ehara ko Hone i kite i te tāhae, (ko Kiri kē).
NEG FOC John TAM see ACC the thief FOC Kiri diff

It wasn't John who saw the thief, (it was Kiri instead).

Ai is not involved in the fronting of subjects, but the fronting of obliques does often involve *ai*.

2.7.2 Fronting Obliques for emphasis

Certain oblique phrases can be fronted for emphasis. Consider the following sentence with a sentence-final time adverbial:

1136 I hoki mai a Timoti i Pōneke **i tērā wiki**.
TAM return DIR PER Timoti from Wellington at that week

Timoti returned from Wellington last week.

With the adverbial fronted more than one sentence structure is possible. In the following, the time adverbial is introduced by the preposition *nō* and the VP is marked by *i .. ai*:

1137 **Nō tērā wiki** a Timoti i hoki mai ai i Pōneke.
belong that week PER Timoti TAM return DIR ai from Wellington

It was last week that Timoti got back from Wellington.

In the following, *ka* marks the verb:

1138 **Nō tērā wiki,** ka hoki mai a Timoti i Pōneke.
belong that week TAM move DIR PER Timoti from Wellington

Last week, Timoti got back from Wellington.

Harlow claimed that fronting an oblique phrase requires the inclusion of *ai* after the main verb only if the fronting is for focus (2001:200). According to this hypothesis, the highlighted fronted time phrase in 1137 is the focus of the utterance whereas in 1138 it is topicalised. Harlow did concede that there appeared to be 'a loose correlation between the choice of construction and function'

(1996:33). This hypothesis that *ai* serves as a focus particle for fronted adverbials will be considered in detail in Chapter 4.

2.8 Conclusion

In this section selected aspects of the grammar of Māori have been briefly covered. Word classes, particularly verb types, and the shape of Māori phrases were described in some detail. A reanalysis of the position occupied by all the post-head modifiers in Māori phrases was also presented, and it was argued that a set of emphatic particles with the same form as the locative particles be recognised. Simple non-verbal and verbal sentences were described, as were the various types of complex sentences. It was proposed that three grammatical functions be recognised for the noun phrases in Māori, specifically subject, object, and oblique. Some attention was given to the pragmatic functions of topic and focus, and several Māori paraphrases were described.

Throughout this chapter, the article *ai* frequently became part of the discussion. *Ai* is used at least by some speakers to express habitual aspect, and it may also be associated with *ka* when certain imperatives are coordinated. The presence of *ai* was also noted in relative clauses, in purpose clauses introduced by *kia*, and in sentences where certain adverbials are located before the main verb. These are all important constructions in most acts of discourse and are testimony to just how vital a competency with the particle *ai* is to a speaker of Māori.

Chapter 3: ACCOUNTS OF *AI*

3 Introduction

This chapter introduces the constructions that the particle *ai* is found in and presents a critique of the various accounts given of the uses of *ai* in various Māori grammars. Accounts of *ai* in two other Polynesian languages are also presented. Finally the hypothesis for the uses of *ai* which is the basis of the current work is presented.

Section 3.1 presents the eight constructions in Māori literature in which *ai* is found to play a part. In this section the structures are described without any attempt to explain the function of *ai*, as this will come in subsequent chapters.

Section 3.2 summarises the accounts given of *ai* in the various Māori grammars available.

Section 3.3 outlines the system used in this thesis to account for the uses of *ai*. This will provide an introduction to the substantive material presented in the next three chapters.

3.1 The uses of *ai*

In this section the eight main constructions that *ai* is found in will be described. As these constructions will receive closer attention in later chapters only enough description is provided here so that the subsequent discussion on the accounts of *ai* given in Maori grammars may be facilitated. These eight environments form the basis of the analysis of *ai* carried out in this thesis. Each of these eight constructions has a distinctive syntax. There is also usually a predictable relationship between the TAM marking the *ai* modified verb and the type of construction.

1. Relative clauses

Ai is often found modifying the verb in a relative clause (henceforth relative verb). In this use of *ai* the TAMs *i* or *e* usually mark the verb. In the following example, the highlighted relative clause modifies the head noun *wāhi*:

1139 Ka tae ki te wāhi **i tupu ai te poroporo o Uenuku**.
TAM arrive to the place TAM grow ai the breadfruit of Uenuku

They reached the place where Uenuku's breadfruit grew. (Biggs 1997:59)

The previous example is an ordinary relative clause. There is another construction which has been called a 'possessive relative clause' (Harlow 2001:269) in which the subject of the relative clause is attached to the head as some form of possessive. An example follows:

1140 Ko tōna kāinga i haere mai ai kei Te Ākau. (Grey 1928:147)
TOP his village TAM move DIR ai at Te Ākau

The village where he left from was Te Ākau.

The subject of the sentence underlying the relative clause is *ia* 'he':

1140a. I haere mai ia i te kāinga kei Te Ākau.
TAM move DIR he from the village at Te Ākau

He left from the village at Te Ākau.

The head of the relative clause is *kāinga* and *ia* is realised as its possessive determiner *tōna* 'his'. *Ai* is obligatory in this type of relative clause.

2. Fronted constituents

Ai is found modifying the main verb in a sentence which has certain adverbials located before the verb. In this use of *ai*, the TAM *i* is used for past tense to mark the *ai*-marked verb, and there is no TAM for future tense. The following example, with a fronted time phrase, shows the usual pattern for future tense:

1141 Āpōpō koe tae ai ki tō kāinga.
tomorrow you arrive ai at your home

Tomorrow you will reach your home. (Reedy 1993:65)

3. Location emphasis

Ai is found modifying a verb which refers to an action that occurs in a previously specified location. In this use of *ai* there is no TAM preceding the verb:

1142 Ka haere te kōtiro ki rō o te whare noho ai.
TAM move the girl to inside of the house sit ai

The girl went inside the house and sat down there. (Tremewan 2002:126)

4. Purpose clauses

Ai is often found modifying the verb in a purpose clause which is marked by *kia*:

1143 Haere e whai i te waewae o Uenuku, kia ora ai te tangata.
move TAM follow ACC the footprint of Uenuku TAM well ai the person

Go search for the footprints of Uenuku so that humankind may be nurtured. (Mead and Grove 2001:52)

Negative purpose clauses are usually introduced by *kia kore ai*:

1144 I haere mai te rata inanahi, kia kore ai te tūroro e mokemoke.
TAM move DIR the doctor yesterday TAM NEG ai the invalid TAM lonely

The doctor came yesterday so the invalid would not be lonely. (Moorfield 1992:31)

5. Dependent action clauses

Ai is found modifying the verb in a dependent action clause which is marked by *ka*. These often take the form of a sequence of imperatives:

1145 Whakakī-a ā.koutou karaehe ki te waina ka tū ai. (Waititi 1985:64)
fill-PASS your(pl) glass with the wine TAM stand ai

Fill your glasses with wine then stand.

6. Result clauses

Ai is found modifying the verb in result clauses. In this use, *i* or *e* usually marks the verb:

1146 Nā reira i karanga-tia ai Te Ānāputa.
belong there TAM call-PASS ai Te Ānāputa

That is why it is called Te Ānāputa. (Matiu and Mutu 2004:45)

The reason may be located earlier in the discourse, and there may be a reiteration of it after the *ai* modified phrase, as in 1147:

1147 I ora ai a Kahukaka, nō Ngāpuhi ia.
TAM safe ai PER Kahukaka belong Ngāpuhi she

And so Kahukaka was saved because she was Ngāpuhi. (Harawira 1950:48)

7. Habitual *ai*

Ai is used by at least some dialects to indicate habitual aspect. In this use of *ai* there is usually no TAM before the verb:

1148 Mahi-a ai tēnei mahi i ngā rā o mua.
work-PASS ai this work at the(pl) day of past

This work was done in the past. (Moorfield 1989:10)

8. Non-verbal structures

Ai occasionally may be found in what appear to be noun phrases:

1149 Āwhea te hoe mai ai? (Grey 1928:163)
when the paddle DIR ai

When will he paddle here?

1150 He aha te kore ai e rere mā runga waka?
CL what the NEG ai TAM sail by upon boat

Why did she not go by boat? (Ngata 2000:128)

3.2 Accounts of *ai* in Māori grammars

The earliest Māori grammars were written by missionaries for teaching purposes. The first, Kendall's *A Korao no New Zealand,* published in 1815, has no mention of *ai* (Kendall 1815). Kendall's more comprehensive text, *A Grammar and Vocabulary of the Language of New Zealand* was significant in that it contained a phonetic alphabet for Māori. *Ai* was included in the vocabulary of this text as an adverb, 'in a point, place, or at a certain time' (Kendall and Lee 1820:148). It should be noted that the Māori consultants for this text, Hongi Hika and Waikato, were from the Northern iwi, and this may partly account for the paucity of information on *ai*.

A series of other missionary works followed, the most notable being Maunsell's 1842 *Grammar of the New Zealand Language.* Maunsell recognised the importance of *ai* and attempted a description of its function:

> Ai is a particle of great use. It is chiefly employed as a substitute for the relatives *who, which, what*, and has reference to the *time, place, manner, cause, means, intention,* etc. of an action ... Secondly, it is employed with a verb to denote a sequence and occasionally an opposition of action, and might be translated by *'and then', 'to'*, and sometimes *'but'* (1862:90).

Maunsell claimed both a noun reference and semantic function for *ai*. For example, he noted that *ai* 'could be used after verbs where the *intention, cause etc.* are to be specifically denoted' in purpose clauses initiated by *kia* (1862:146). Maunsell's accounts of the functions of *ai* were somewhat limited by his continual reference to English grammar.

The next notable Māori grammar was Williams' *First Lessons in Māori*, first published in 1862 and reprinted a number of times up until 1940. The sixth edition in 1904, edited by Henry Williams, was the first grammar to begin describing grammatical categories in Māori terms. There was no attempt to account for the syntax of *ai* in this text but its occurrence in wh-questions and relative clauses was noted (1940:48).

Hare Hongi (aka Henry Stowell) was the first native speaker to publish a Māori grammar. He was motivated to correct those earlier grammars that were 'not altogether to the scientific study of the subject' (Stowell 1911:iii). His text could best be described as somewhat unusual. It was a semantic approach and his comments on *ai* are typical of his method of grammatical description:

> ai (verb auxillary), may, possible to be, contingent. … Ai, then, propounds a cause or advances a reason. Ai is perhaps an abbreviation of ahei. E ahei, 'it is possible', e kore e ahei, 'it is impossible'…When associated in a sentence the word kia, ai conveys the meaning: in order to effect the desired object (1911:7-8).

The next set of Māori grammar texts were school grammars. These were largely descriptive with little explicit grammar. As far as *ai* is concerned, they have varying descriptions of its uses and little

will be gained by reporting their observations in detail here. Probably the best of these school grammars is Smyth's *Te Reo Māori: A Guide to the Study of the Māori Language*, published in 1939. This has a separate section on *ai*, giving prescriptive rules for its uses in nine separate situations, such as in relative clauses, in wh-questions, and in denoting habitual action (1943:152-3).

In 1961 Bruce Biggs produced his PhD, *The Structure of New Zealand Māori*, which focused on the structure of the Māori phrase. This was the first grammar to describe the language in its own terms. Biggs's grammar text, *Let's Learn Māori*, was first published in 1969, and became the standard text for at least three generations of teachers and learners of the language. Biggs defined *ai* as a postposed verbal particle that indicates subordination:

> A phrase containing ai in the postposed periphery is marked as verbal even though there may be no verbal particle present. Such a phrase usually forms a subordinate constituent of the sentence indicating an action or state which is consequent upon some earlier circumstance (1973:72).

He further espoused the subordination hypothesis for relative clauses:

> Any nominal phrase may be followed by a qualifying verbal constituent relative to it. The subordination of the verbal phrase is indicated by *nei*, *na*, *ra*, or *ai*. *Ai* is used only for past and future time (1973:122).

Biggs also described what he presumably considered to be an idiomatic use of *ai* following a *no te* construction to produce the meaning 'because'. His example follows (with orthographic conventions changed to match the current work):

1151 Nō te katanga a Tīwaiwaka i a Māui i kūtia ai e Hine-nui-te-pō, ā, mate ana.

It was because Fantail laughed at Māui that (he) was crushed by Hine-nui-te-pō and died.

This example can be construed as containing a fronted reason adverbial. In all its uses, Biggs described *ai* as having a subordinating function. His grammar has no mention of habitual *ai*.

Bigg's grammar text was influential. Ryan's *Modern Māori Book 2*, for example, gave the following description of the function of *ai*, which seems to follow Biggs's proposal very closely:

> Ai is a very important connecting word. It usually occurs in the second part of a two part statement after a verb. Its general purpose is to indicate a link between 2 parts (i.e. that the meaning of the second part in someway is dependent on the first part). Translating in to English, a wide range of meanings is covered by this one little word in Māori (1986:62).

Foster's 1987 text *He Whakamārama* dedicated a chapter to *ai* because he claimed 'more mystery surrounds this particle than is really necessary' (1987:157-65). It is arguable that his work did a great deal to alleviate this concern. His description of the uses of *ai* are largely semantic and as a

consequence grammatically diverse structures have been collated. He stated that *ai* 'does have meaning by implication or influence' and that *ai* will 'more or less *refer back* to some *time*, *place*, or *circumstance* already mentioned' (1987:157). This seems to describe both semantic and anaphoric roles for *ai*. In a later work he reiterated this interpretation of *ai*:

> The particle ai broadly equates to a range of words that are now mostly phased out in everyday English usage. … The particle 'ai' does not itself have any directly translatable meaning but does have a strong influence on the information being imparted. In general 'ai' is making reference back to some previously stated or understood *place, time* or *circumstance* and the English words *thereat, thereupon,* and *thereby* give a good indication of its contribution to the meaning (1997:42).

Foster did recognise that *ai* also appears to have some other function in location emphasis and habitual aspect constructions although he was not overly specific:

> It is common to see an explanatory verb at the end of a sentence and directly followed by the particle 'ai' … Habitual action is also indicated by 'ai', usually in an elliptical construction (1997:42).

Chapin's analysis of Proto-Polynesian **ai* also deserves mention. After surveying the use of *ai* in 19 extant Polynesian languages (including Māori), he concluded that Proto-Polynesian had one anaphoric **ai*, and possibly at least one non-anaphoric **ai* with the same form, 'which may or may not have been related to it' (1974:259). It is worth reiterating his conclusions on anaphoric **ai* here:

> Anaphoric *ai was not lexical but grammatical; generally speaking, it was a substitute for a noun phrase which was in the oblique case … and which was identical to and coreferential with some other noun phrase in the same sentence or a preceding sentence (1974:259-60).

He asserted that *ai* does not substitute anaphorically for the nominative case in any Polynesian language, although two 'apparent' counter examples were given (one of which is Māori) which he could not account for.

Chapin recognised that the *ai* found in *kia* purpose clauses does not substitute for a NP in the usual sense that applies to pro-forms. He did not accept that a copy of a NP exists in the underlying structure of the purpose clause, instead proposing that *ai* acts as a 'lexical pronoun', which:

> serves to capture some conceived or perceived entity present in the situational awareness of both speaker and listener and thrust into the stream of the sentence … It is anaphoric in the sense that it takes its meaning from its relationship to an antecedent, but it is not a substituent (1974:280).

He suggested four non-anaphoric *ai* for Māori. Two are clearly lexical items; the existential *ai* 'there is', and *e ai* 'according to', neither of which concern us here. Of relevance are those examples he included where *ai* marks a nominalised time adverbial. In these examples *ai* appears in the time segment itself and 'has no apparent antecedent' (Chapin 1974:288):

1152 I waiatatia e tana wairua i runga i te whare i tōna mauranga ai i te tamaiti.

It was sung by his supernatural being on the roof of the house when it took a child. (Chapin 1974:288)

Examples such as these will be discussed in Chapter 6.

His final non-anaphoric *ai* is found after verbs of motion 'expressing the idea of indefinite extension of the motion referred to by the verb' (1974:289). This is reminiscent of the location emphasis use described in 3.1:

1153 Puritia i te taha maui o Te Mangō-roa, haere ai.

Hold to the left of the Milky Way, and travel on.

Chapin's work on *ai* is commendable. His descriptions of anaphoric *ai* replacing oblique NP under certain conditions certainly appear to accord with Māori examples. He was unable to account for its appearance in relative clauses in which it appears to resume the nominative case. Nor has he accounted for optional uses of *ai* in, for example, purpose clauses. He was obviously aware of the different function *ai* has in purpose clauses, but did not explain in detail what he meant by the term 'lexical pronoun'.

A major work on Māori grammar was Bauer's 1981 PhD thesis *Aspects of the Grammar of Māori*. This was largely concerned with an analysis of relative clauses. She rejected Chapin's conclusions that *ai* is a non-subject pro-form and proposed instead that it marks subordination. Its non-appearance in subject relativisation was explained in terms of 'hearer perception and prediction' (1982:337). In most instances of subject relativisation, the absence of the subject from the relative clause, and the presence of a preposition after the relative verb would be enough to indicate subordination, and thus *ai* or a deictic would not be required.

Bauer extended this proposal to other uses of *ai* in her text *The Reed Reference Grammar of Māori,* the most comprehensive Māori grammar to date:

> There are two distinct particles with the form *ai* which appear in post-verbal position. One is a habitual TAM which occurs freely in independent sentences and matrix clauses. The particle ... which I call dependent *ai* occurs in independent sentences and matrix clauses which have certain constituents placed in pre-verbal position, and in a variety of subordinate clauses (Bauer 1997:375).

For fronted constituents she stated that dependent *ai* was 'introduced to mark the fronting of an adverbial which originates after the verb' (1997:376). This is a description of an anaphoric trace although Bauer appears to be claiming that *ai* is indicating dependence.

For relative clauses, to account for the non-appearance of dependent *ai* in most examples of subject relativisation, she argued that a distinction must be made between those cases where *ai* (or a locative particle) is obligatory and those where it is optional. *Ai* is required when relativising on an oblique NP, and optional with relativising on a subject, or a direct object of an experience verb (1997:382). The inclusion of optional *ai* for subject relativisation 'serves to make the relationship of the relative clause to the matrix clause clearer' in situations where the subject is not the 'expected' subject of the verb (1997:568). However this argument does not account for all cases of subject relativisation. In the following example, the head of the highlighted relative clause is the expected subject of the relative verb:

1154 Ka karanga-tia a Wairangi me tana ope ki te whare **i whakarite-a ai**
TAM call-PASS PER Wairangi and her group to the house TAM arrange-PASS ai
mō rātou.
for they

Wairangi and his company were called to the house **arranged for them.** (Jones and Biggs 1995:145)

For *kia* purpose clauses, Bauer stated that these 'normally require *ai* following the verb', but she provided no further explanation for the circumstances in which *ai* would be included (1997:383). Even the observations of the situations where *ai* is optional appear to be not entirely accurate. For example, she claimed that *kite* 'see' never takes *ai* (1997:383), but counterexamples are not hard to find:

1155 .. kia kite ai ngā tāngata o tērā wāhi i ngā mea ātaahua nei.
TAM see ai the(pl) people of that place ACC the(pl) thing beautiful LOC

so that the people of that place would see these beautiful things. (Waititi 1985:69)

Bauer's distinction between habitual *ai* and its other uses seems sensible. Unresolved issues include the uncertain accounts made for the optional uses of *ai* and the lack of explanation (perhaps due to lack of data) for its use in non-verbal situations.

Harlow's grammar text, although not as exhaustive as Bauer's, was designed to provide competent speakers of Māori with 'accessible accounts and explanations of aspects of Māori structure' (2001:1). Harlow defined *ai* as 'very much a verbal particle, occurring in verb phrases almost exclusively' (2001:60). He described a wide range of structures in which *ai* occurs, such as in commands (an aspect of use 5 above), relative clauses, clauses of purpose, and fronted comments (2001:60). Also included were a number of minor uses which will be referred to elsewhere in this thesis. There are no specific reference to any semantic contribution *ai* might make to its clause and

the reasons for its inclusion in situations where its use is optional were not explored. Of considerable value were observations made regarding changes that appear to have occurred in the use of the particle, and the description of *ai* as a focus marker (as described in Section 2.7). These will be referred to in more detail in the later chapters.

Moorfield claimed that *ai* 'is a word that has no equivalent in English, but is often used to avoid having to repeat something that has already been stated earlier in the sentence' (1988:29). This is clearly a view of *ai* as an anaphor of sorts. Examples throughout his four texts show that the 'something' that *ai* refers back to could be a NP (1992:43), a clause (1988:50), or the general discourse (1996:27).

There are two studies of other Polynesian languages that are also worthy of mention here. The first is by Mutu on a Marquesan dialect that also uses *ai*. She concluded that for Marquesan *ai* the distinction needed to be made between 'anaphoric *ai*' and 'lexical *ai*'. Anaphoric *ai* is obligatory. It is found in sentences with certain fronted constituents (location, cause or stative agent), and in relative clauses when the head of the clause is location or instrument (2002:105). Lexical *ai* is optional. It 'contributes new meaning to the sentence', which depends upon the tense of the verb (2002:99). For the future tense it 'indicates that the action is sure, possible and likely to occur at a precise moment in time' whereas for past tense it 'implies a previously given reason or cause' (2002:105). Mutu's observation of the need to distinguish between grammatical and lexical functions of *ai* is insightful. While the details are somewhat different, I will argue that this dual character of *ai* is readily apparent in Māori.

The second relevant study is that of Niuean *ai* by Massam and Roberge. They observed that *ai* had a number of apparently diverse functions in Niuean (Massam and Roberge 1997:282-5). They found it substituting for an oblique element in relative clauses, in topicalisation and question fronting, and also used in situations where it locates its clause into preceding discourse. They concluded that Niuean *ai* was 'an operator bound situational clitic' (1997:298) (they preferred the term clitic to account for the observation made previously by Bauer for Māori that *ai* does not take the position occupied in the sentence of the deleted element but is instead attached to the verb). *Ai* was viewed as anaphoric in all its uses in Niuean. Its apparent diversity was due to the fact that it could 'be bound by different types of operators' (1997:288). For example the operator could be a locative NP in relativisation, or the co-ordinating TAM *kia* in purpose clauses. In discourse uses *ai* would be bound by a null operator which 'represents the discourse topic' (1997:296). *Ai* behaves somewhat differently in Niuean than it does in Māori. There does not appear to be habitual *ai* in Niuean, and Māori does not have *ai* following *i* or *ki* as it does in Niuean. Nevertheless many uses in the two languages appear to be identical and the attempt at a unified account has influenced this thesis.

3.3 An hypothesis to account for all uses of *ai*

This section presents my hypothesis on the functions of *ai* in Māori. Chapters 4 – 6 contain more detailed explanations.

Firstly, *ai* is defined as a particle in accord with all available grammars of Māori. Although defining *ai* as a clitic accounts for its location in the phrase it does not add further to the descriptions that follow.

After Bauer the distinction is made between habitual *ai* and other uses. Habitual *ai* is defined as a TAM which is located in the post head position in a VP. It confers habitual aspect on its verb. Habitual *ai* is a minor use of the particle. It is described in Chapter 6.

Non-habitual *ai* is defined as an anaphor in all of its uses. There are two types of anaphoric *ai* proposed here. Resumptive *ai* is an anaphoric pro-form, an anaphor that resumes a specific NP in the *ai* clause. The resumed NP is located before the *ai*-marked clause as a fronted adverbial, as the head of a relative clause, or as a previously specified location in a prior clause. In some constructions resumptive *ai* can resume a clause, at least for certain speakers. Resumptive *ai* is grammatically required and obligatory. Uses 1, 2, and 3 described in 3.1 are the occurrences of resumptive *ai*. Resumptive *ai* is the most common use of the particle. It is described in Chapter 4.

The second anaphoric *ai* is called resultative *ai*. This is a discourse anaphor that locates its clause in previous discourse. It does not refer the listener to a specific NP but to a situational element located either in the same sentence or in a previous sentence. The underlying relationship between the *ai*-marked clause and the element it refers to is one of causality. The specific nature of the relationship is determined by the particle marking the *ai* modified verb. In the case of *kia* 'let' the causative relationship is one of purpose. In the case of *ka* 'and' the causative relationship is one of dependent action. With the TAM *i* the causative relationship is result. Resultative *ai* appears to make a lexical contribution to its clause. Uses 4, 5, and 6 described in 3.1 are the main occurrences of resultative *ai*. It is described in Chapter 5.

It seems to me that the strength of this hypothesis lies in its simplicity, on its capacity to account for optional uses of *ai*, and on its ability to account for a number of previously unexplainable examples. These problematic examples usually involve an unexpected appearance of *ai*. In this hypothesis a structure which does not normally allow one form of *ai* may allow another. For example *ai* found in certain relative clauses which do not normally include resumptive *ai* may be explained as instances of habitual *ai*. Throughout the remainder of this thesis further examples and arguments supporting this hypothesis will be presented. It will be shown that native speakers appear to construct their sentences in accord with the hypothesis. It should be noted that this hypothesis accords with the

intuitions of my consultants about their use of *ai*. The following diagram summarises the hypothesis:

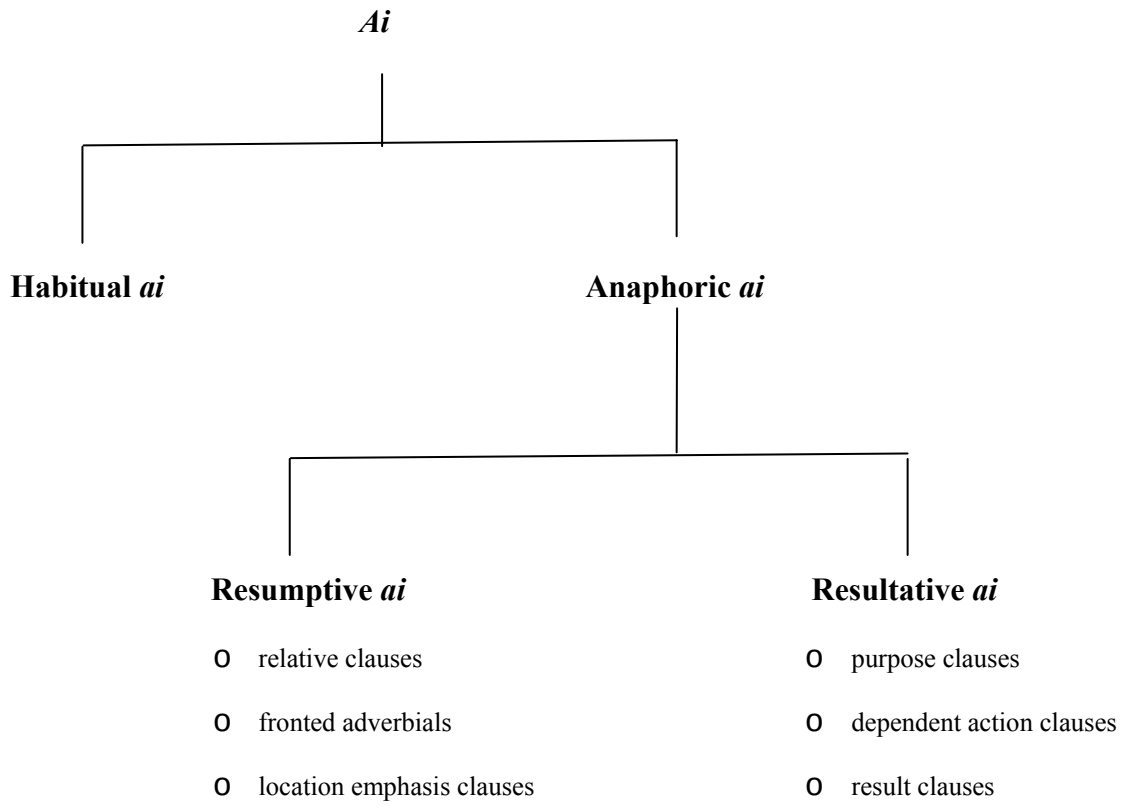

Table 5: A paradigm for *ai*

Chapter 4: RESUMPTIVE *AI*

4 Introduction

This chapter describes the situations where *ai* acts as a resumptive pro-form. There are three main constructions that are described here; relative clauses, sentences with fronted adverbials, and location emphasis.

The uses of resumptive *ai* are determined by syntax. Its use is not seen as optional. In all cases the deletion of resumptive *ai* results in an ungrammatical sentence. There is a close relationship between the NP resumptive *ai* can resume and the role the NP plays in its sentence. As a general rule *ai* can not resume the nominative case. There are also tense restrictions in some uses of resumptive *ai*.

Section 4.1 describes Māori relative clauses, outlining the four strategies that are used to form them. In two of these strategies *ai* is used as a resumptive pro-form within the relative clause for an oblique NP which is the head of the relative clause. This section also describes a number of instances where *ai* is used in subject relativisation, and it is argued that *ai* is not resuming the head, but is either conferring habitual aspect on the relative verb or making a causal link to a reason located elsewhere in the discourse.

Section 4.2 describes the fronting of various constituents in the sentence, and the instances where the fronted constituent is resumed by *ai*. This section shows that *ai* normally resumes a NP, but can resume a clausal constituent in certain instances.

Section 4.3 describes those complex sentences where *ai* resumes a location found in a prior clause. This use of *ai* appears to affect the meaning of its utterance by emphasising the location where the *ai*-marked action occurs.

Section 4.4 describes another use of *ai* in complex sentences which appears to be quite rare in Māori but reasonably common in related Polynesian languages. In this use *ai* indicates that the *ai*-marked action occurs subsequent to a previous action. This use of *ai* is not strictly resuming a NP but is included here because of its structural similarity to 4.3.

4.1 Relative clauses

4.1.1 Background

A relative clause is a subordinate clause which modifies a NP. The modified noun is the head (or antecedent) of the relative clause. In the following, the highlighted relative clause modifies the head NP *te tangata rā*:

1156 Whakarongo ki te tangata rā **e waiata ana**.
listen to the man LOC TAM sing TAM

Listen to that man who is singing.

The sentence underlying the relative clause in 1156 is:

1156a. E waiata ana te tangata rā.
TAM sing TAM the man LOC

That man is singing.

In this example the head is the subject of the 'sentence underlying the relative clause' (henceforth 'underlying sentence'). The term 'relativised on' refers to the grammatical role the head NP plays in the underlying sentence. 1156 is an example of subject relativisation. In the following example, the object of the transitive verb *waiata* 'to sing' is relativised on, as the underlying sentence 1157a shows:

1157 Koia te waiata i waiata ai ia.
that.is the song TAM sing ai he

That is the song which he sang. (Ngata 2000:19)

1157a. I waiata ia i taua waiata.
TAM sing he ACC that song

He sang that song.

Relative clauses may modify a NP which is part of either a non-verbal or verbal sentence. It is usually the subject of a non-verbal sentence which is modified by a relative clause:

1158 He aha te take i pēnei ai koe?
CLS what the reason TAM like.this ai you

What is the reason you did this? (Harlow 2001:264)

Relative clauses may be either verbal or non-verbal. However only verbal relative clauses contain *ai*. The rest of this section deals only with verbal relative clauses, many of which require resumptive

ai in a predictable manner. Before describing their formation there is a review of what Māori grammars have had to say about *ai* in relative clauses.

Maunsell was the first to observe that *ai* is involved in relative clauses. He stated that *ai* was 'chiefly employed as a substitute for the relatives *who, which, what*' (1862:90). Williams' grammar text gave a similar description and added a tense restriction: 'Use *ai* with the past and future only' (1940:48).

It was Williams' *Dictionary of the Maori Language* that first noted that *ai* was found 'occasionally with passive verbs when the relative is the subject of the verb', but no explanation was forthcoming (1971:4).

The only school grammar worth noting is Wills, primarily because his was the first text to describe the possessive relative construction (1950:107). Wills called this construction 'possessive pronoun definitives' and provided the following example:

1159 .. tāu tangata i karanga ai.

.. the man that you called. (1950:107)

The most significant work on relative clauses to date is Winifred Bauer's PhD thesis and her subsequent paper *Relativization in Māori*. While her main aim in this work was to challenge the Accessibility Hierarchy Model of relativisation proposed by Keenan and Comrie, in the process she provided a detailed analysis of the process of relativisation in Māori, a description based largely on the grammatical function being relativised on (1982:309-16). She proposed four strategies for relativisation; the subject strategy, the *ai* strategy, the possessive strategy, and the pronoun strategy. These are also the strategies Harlow used in his text (2001:262-75). They are the strategies described here although the first is renamed the gap strategy. Both Bauer and Harlow gave excellent descriptions of relativisation in Māori, and indicated the problematic issue of *ai* in subject relativisation. This topic will be dealt with in some detail below.

4.1.2 The relative clauses database

The analysis of relative clauses here is based on a corpus of over 700 sentences which contain *ai* within their relative clauses. Of these, 508 are from either classical or modern narratives in roughly equal proportion. These are used when making comments on any temporal changes observed. The corpus also consists of over 400 sentences which contain relative clauses without *ai*. All the non-*ai* sentences have been deliberately extracted from narratives in the classical and modern time frames. The smaller number in this sub-corpus is justified by the fact that these relative clauses show less variability than their *ai* counterparts.

4.1.3 The strategies

Four strategies are used for forming relative clauses in Māori. Which strategy is used depends mainly upon what grammatical function is being relativised on. Tense of the VP in the relative clause also has an effect. Each strategy is described separately.

4.1.3.1 The gap strategy

In this strategy the relative clause has a gap in the position that would be occupied by the head in the underlying sentence, as in 1156. This is the commonest way of forming relative clauses in Māori. Analysis of 14 narratives, both classical and modern, showed that about 17% of the sentences contain a relative clause, and 80% of these are formed using the gap strategy.

A locative particle may be located after the relative verb in gap relatives:

1160 .. ngā tamatoa i haere **nei** ki.te patu i ngā kāeaea.
the(pl) brave.man TAM move LOC TAM kill ACC the(pl) hawk

.. the men who set out to kill the hawks. (Mead 1999a:67)

When *nei* is deleted from 1160 the sentence is still grammatical. This indicates that the relative clause has been formed using the gap strategy. Bauer argued that the locative is added during relativisation (1982:333).

Ana combines with the TAM *e* to indicate progressive aspect in gap relatives:

1161 Kua kite-a mai rāua e haere atu ana ..
TAM see-PASS DIR they TAM move DIR TAM

They were seen approaching .. (Orbell 1992:170)

A locative particle or *ana* can appear in relative clauses formed by other strategies. There are over 100 sentences in my corpus which have no *ai*, *ana*, or locative particle following the relative verb. These contain relative clauses that have been unambiguously formed using the gap strategy. Almost all of these relativise on the subject.

4.1.3.1.1 Subject as head

The following contains a gap relative clause that relativises on the subject:

1162 Ko te tangata i kite i te patupaiarehe ko Te Kanawa.
TOP the man TAM see ACC the fairy EQ Te Kanawa

The man who saw the fairies was Te Kanawa. (Orbell 1992:8)

The underlying sentence has the head as its subject:

1162a. I kite te tangata i te patupaiarehe.
TAM see the man ACC the fairy

The man saw the fairies.

These are the commonest form of relative clause. Speakers from all iwi in both time frames use this strategy for relativising on the subject. These relative clauses do not contain resumptive *ai*.

4.1.3.1.2 Object of an experience verb as head

Harlow claimed that the gap strategy may also be used when the object of an experience verb is relativised on (2001:260). A textual example follows:

1163 He tino maha ngā mea whakamīharo i kite rātou
CLS very many the(pl) thing amazing TAM see they
i taua rā. (Waititi 1991:100)
at that day

The wonderful things that they saw that day were very numerous.

The underlying sentence has the head as the object of the experience verb *kite*:

1163a. I kite rātou i ngā mea whakamīharo i taua rā.
TAM see they ACC the(pl) thing amazing at that day

They saw the wonderful things that day.

Bauer also made this claim, adding a proviso:

> sometimes *ai* or the deictics [locative particles in this work] occur in the relativisation of the DOs of experience verbs, but they are not obligatory, and are sometimes rejected by fluent speakers (1997:569).

Unfortunately Bauer did not elaborate on the reasons why *ai* or a locative are sometimes deemed unacceptable. My database contains only six examples similar to 1163 which have been unambiguously formed by the gap strategy. All are from modern texts. A closer look at this claim proves interesting.

All relative clauses containing the six most commonly occurring experience verbs that occur in my corpus of classical and modern narratives were collated. The verbs were *hiahia* ‘want’, *kite* ‘see’, *mahara* ‘remember’, *mōhio* ‘know’, *rongo* ‘hear/sense’, and *whakaaro* ‘think’. Only those sentences where the head of the relative clause is the object of the experience verb were included. Two examples follow, the first a classical example with *ai* and the second a modern one without *ai*:

1164 Tēnei te maire i rongo atu ai au .. (Grey 1928:91)
this the song TAM hear DIR ai I

This was the song I heard ..

1165 Ka kōrero a Matamata i ngā kōrero i rongo ia.
TAM tell PER Matamata ACC the(pl) story TAM hear he

Matamata told the stories he had heard. (Jones and Biggs 1995:147)

Results from the analysis are summarised in the following table. The data given are the number of occurrences of each relative verb with each of the post-verbal particles (none, *ai*, locative particle, or *ana*):

	Classical				**Modern**			
	none	**ai**	**loc**	**ana**	**none**	**ai**	**loc**	**ana**
hiahia	-	1	1	1	-	4	1	3
kite	-	8	5	3	2	-	3	1
mahara	-	1	-	-	1	1	-	-
mōhio	-	4	1	4	-	3	-	5
rongo	-	13	3	-	3	-	-	-
whakaaro	-	2	1	-	-	1	-	1
%	**0**	**60**	**23**	**17**	**21**	**31**	**14**	**34**

Table 6: Relative clauses and experience verbs

Interestingly there are no examples from the classical texts that have been unambiguously formed using the gap strategy, compared to 21% in modern texts. In contrast a high proportion of examples, particularly in classical texts, have *ai* in the relative clause. For non-present tense (which exclude *ana*) the proportion with *ai* is actually 73%. Of course a locative particle or *ana* used post-verbally could be representing the gap strategy, but the high occurrence of *ai* in these relative clauses

suggests that this is not likely. It appears that the gap strategy was not preferred by classical Māori speakers when relativising on the object of an experience verb.

But are these sentences formed by the gap strategy ungrammatical? If the post-verbal particles are optional, why are they sometimes included? Unfortunately consultants produced confusing answers to these questions. One older speaker said that if the post-head particle was deleted the sentences were 'simply wrong', and that there was no difference in meaning between *ai* or a locative particle. Another consultant commented that including *ai* 'indicated that a reason would be given somewhere earlier'. Yet another consultant felt that the particles were not necessary at all and he had no difficulty producing sentences which he judged well-formed:

1166 He aha te mea i pīrangi koe?
CLS what the thing TAM want you

What was it that you wanted?

It is hard to know what to conclude from these conflicting statements. It does not appear to be a function of a speaker's dialect, as completely opposing views came from two speakers of the same dialect. Nevertheless, despite the paucity of data, I tentatively conclude that the gap strategy was not used for relativising on the object of an experience verb, and that there appears to be slippage towards this strategy for some modern speakers. The inclusion of *ai* or a locative particle in relative clauses that relativise on the object of an experience verb remains productive and is probably the safest strategy to adopt.

4.1.3.1.3 Oblique phrases as heads

There are four sentences in my corpus where an oblique phrase have been relativised on using the gap strategy. A modern example follows:

1167 .. koia nei te wā i mau i a tātou wēnei tāngata..
that.is EMPH the time TAM catch by PER us these people

.. that was the time when we caught these beings .. (Matiu and Mutu 2004:44)

The underlying sentence shows that it relativises on time:

1167a. I mau i a tātou wēnei tāngata i taua wā.
TAM catch by PER us these people at that time

We caught these beings at that time.

The final three examples are all from classical texts. They relativise on reason, as the following example and its underlying sentence show:

1168 He aha rawa te take i kite-a mai koe?
CLS what EMPH the reason TAM see-PASS DIR you

How is it that we see you here? (Orbell 1992:119)

1168a. I kite-a mai koe i taua take.
TAM see-PASS DIR you for that reason

You are seen here for that reason.

Most consultants felt that these sentences required the addition of *ai* or a locative particle after the relative verb. The conclusion reached is that oblique phrases should not be relativised on by the gap strategy.

4.1.3.2 The pronoun strategy

In this strategy the relative clause has no gap, and the head of the relative clause is resumed in the relative clause as a pronoun. A common form is where the agent of a transitive verb becomes the *nā/mā* agent of an actor emphatic relative clause, as in the following:

1169 He taniwha tēnei nāna i kai taku tama.
CLS taniwha this his TAM eat my son

It was certainly a taniwha that ate my son. (Mead 1999a:19)

The pronoun strategy may be used for notional indirect objects, for agents of neuter verbs, and for beneficiaries. An example of the latter follows:

1170 Kāhore e tae mai te wahine i mahi-a te kākahu nei mōna.
NEG TAM arrive DIR the woman TAM work-PASS the dress LOC for.her

The woman that this dress was made for has not yet turned up. (Bauer 1997:576)

Relative clauses formed by the pronoun strategy do not include *ai.* Bauer cited an example which does, and suggested that *ai* is included because of the complexity of the relative clause, with *ai* indicating the dependence of the subordinate clause (1997:577):

1171 .. kia kawea anō e Ponga ki te tangata i tukua mai ai taua patu rā ki a ia e te matua o Puhihuia

.. so that it could be carried back by Ponga to the man who that weapon was given to by Puhihuia's father

1171 appears to be an isolated example. I have found no textual examples of relative clauses containing *ai* that have been unambiguously constructed using the pronoun strategy.

4.1.3.3 The *ai* strategy

In this strategy *ai* or one of the locative particles is found after the relative verb. In almost all cases the TAM marking the relative verb is either *i* or *e*.

Most grammars have noted that *ai* is only available for either past or future tense. Harlow stated that a locative particle replaces *ai* in the present tense (1996:46). Bauer indicated the relative verb could be marked with either *ai* or *rā* for past tense, with the choice between them being unpredictable (1997:575). All her examples with *e .. ai* marking have a future reading. This matter required some attention. Consider the following generated sentence:

1172 Koia te take i tū ai/rā te hui.
that.is the reason TAM stand ai/LOC the meeting

That's the reason why the meeting was held.

My consultants indicated that 1172 could only refer to past tense. Some felt that there was no real difference in meaning between *ai* and *rā*. Two consultants suggested that *rā* indicated that the meeting was located far from both the speaker and listener, whereas one suggested that it indicated a greater temporal separation that *ai*. One Tūhoe consultant would only allow *ai* for relativising on reason, as in the example. Compare this to the following:

1172a. Koia te take e tū ai te hui.
that.is the reason TAM stand ai the meeting

That's the reason why the meeting will be held.

All consultants defaulted to future for this sentence (and others like it). When *ai* was replaced by a locative particle my consultants gave a present tense reading, with the choice between the particles indicating the physical location of the meeting in the usual way:

1172b. Koia te take e tū nei/nā/rā te hui.
that.is the reason TAM stand LOC the meeting

That's the reason why the meeting is being held.

In a few cases it was possible for *e .. ai* (and *i .. ai* for a Ngāti Porou speaker) to add habitual aspect to the relative verb, particularly where the verb was duplicated:

1172c. Ko te raupatu te take e/i hui-hui ai ngā iwi.
EQ the dispossession the reason TAM met.DUPL ai the people

Land confiscation is the reason why the people are always meeting.

It appears that *e .. ai* marking of relative verbs is reserved for future tense, except in cases where habitual aspect is possible.

As the presence of a locative particle is not evidence that a relative clause was formed by this strategy, the following discussion is based on an analysis of those relative clauses which contain *ai,* and are thus unambiguously formed using the *ai* strategy. There are 683 sentences in my corpus with *ai* relative clauses. 575 come from the narratives.

In both the classical and modern *ai* relative clauses, the only TAMs used to mark the relative verb are *e* (18%) and *i* (82%). This is in contrast with the gap strategy which uses a wider range of TAMs. There are a few rare examples in *ai* relatives where there is no TAM, although these are more readily found in modern texts. Such clauses appear to be marking habitual aspect for the action described by the relative verb in which case habitual *ai* may be taking precedence over resumptive *ai*. An example follows:

1173 .. te wāhi hui ai te iwi Māori .. (Karetu 1991:74)
the place meet ai the people Māori

.. the place where Māori people gather ..

4.1.3.3.1 Oblique phrase as head

The majority of *ai* relative clauses in my database relativise on an oblique phrase. A wide range of roles may be relativised on. The following relativises on location:

1174 .. te wāhi i whānau ai ia .. (Karetu 1991:93)
the place TAM born ai he

.. the place where he was born ..

The underlying sentence shows the head as location:

1174a. I whānau ia i te wāhi.
TAM born he at the place

He was born at the place.

The following sentence, accompanied by its underlying sentence, relativises on reason:

1175 .. te take i tau mai ai au. (Huia 1997:54)
the reason TAM settle DIR ai I

.. the reason I settled here.

1175a. I tau mai au i te take.
TAM settle DIR I for the reason

I settled here for the reason.

The following relativises on time:

1176 .. te wā i puta ai a Te Pātū ..
the time TAM emerge ai PER Te Pātū

.. the time Te Patu escaped .. (Clother 2002:111)

1176a. I puta a Te Pātū i te wā.
TAM emerge PER Te Pātū at the time

Te Patu escaped at the time.

The following relativises on means:

1177 .. tētahi tikanga mātau e tahuri ai te pā.
a plan clever TAM fall ai the pā

.. a cunning plan by which the pa would fall. (Biggs 1997:157)

1177a. E tahuri te pā i tētahi tikanga mātau.
TAM overthrown the pā from a plan clever

The pā will fall because of a cunning plan.

The following relativises on instrument:

1178 He koromako te wahie i tao-na ai te moa.
CLS koromako the wood TAM roast-PASS ai the moa

Koromako is the wood with which the moa was roasted. (Mead and Grove 2001:88)

1178a. I tao-na te moa ki te wahie.
TAM roast-PASS the moa with the wood

The moa was roasted with wood.

In past tense the TAM *i* typically marks the verb as in 1178. For future *e* marks the verb, as in 1177. In the following, future location is relativised on:

1179 Me haere tātou ki te rūma e waiata ai a Mere.
TAM move we to the room TAM sing ai PER Mere

We should go to the room where Mere will sing. (Foster 1987:158)

The underlying sentence involves the TAM *e,* which is rarely found in independent clauses:

1179a. E waiata a Mere ki te rūma.
TAM sing PER Mere at the room

Mere will sing at the room.

As explained above, many speakers use the *ai* strategy for relativising on the object of an experience verb, with some consultants insisting that this is the only appropriate method. A further example follows:

1180 .. te wāhi i hiahia ai rātou.
the place TAM want ai they

.. the place they wanted. (Reedy 1993:62)

The underlying sentence has the head realised as the PP introduced by *ki* which marks the object of the experience verb:

1180a. I hiahia rātou ki te wāhi.
TAM want they ACC the place

They wanted the place.

The agent/causer phrase of a neuter verb can be relativised on by the *ai* strategy:

1181 .. te aituā tērā i mate ai a Paikea.
the disaster that TAM dead ai PER Paikea

.. that was the evil fate that destroyed Paikea. (Reedy 1997:39)

The underlying sentence shows the head as an oblique phrase introduced by *i*:

1181a. I mate a Paikea i te aituā.
TAM dead PER Paikea by the disaster

Paikea was destroyed by the evil fate.

The agent of a passive verb is not often relativised on, but examples using the *ai* strategy can be found that are deemed acceptable:

1182 .. te kāmura i kāmura-tia ai tēnā whare.
the carpenter TAM construct-PASS ai that house

.. the carpenter who constructed that house. (Matiu and Mutu 2004:47)

1182a. I kāmura-tia tēnā whare e te kāmura.
TAM construct-PASS that house by the carpenter

That house was constructed by the carpenter.

Also quite rare are examples where the head is in the company of a group of people who are the subject of the relative clause:

1183 .. tētahi o aku hoa i haere tahi ai mātou
a of my friend TAM move one ai we

.. one of my friends who went with us (Pōtatau 1991:55)

The underlying sentence has the head realised as part of the subject:

1183a. I haere tahi mātou.ko taku hoa.
TAM move one and my friend

We went together with one of my friends.

Beneficiaries are usually relativised on using the pronoun strategy as described above, but rare examples are found that appear to be constructed using the *ai* strategy. The following is by Apirana Ngata:

1184 .. te tino kōtiro i whakarite-a ai tēnei tā-inga ngutu
the very girl TAM arrange-PASS ai this tattoo-NOM lip

.. the highly ranked girl for whom the lip tattooing has been arranged (Biggs 1997:179)

The underlying sentence has the head realised as a PP introduced by beneficiary *mō* 'for':

1184a. I whakarite-a tēnei tā-inga ngutu mō te tino kōtiro.
TAM arrange-PASS this tattoo-NOM lip for the very girl

This lip tattooing has been arranged for the highly ranked girl.

The following graph shows the percentage of occurrences for the main oblique roles that can fill the head of a relative clause which had been formed by the *ai* strategy, determined from all *ai* relative clauses found in narratives in my corpus:

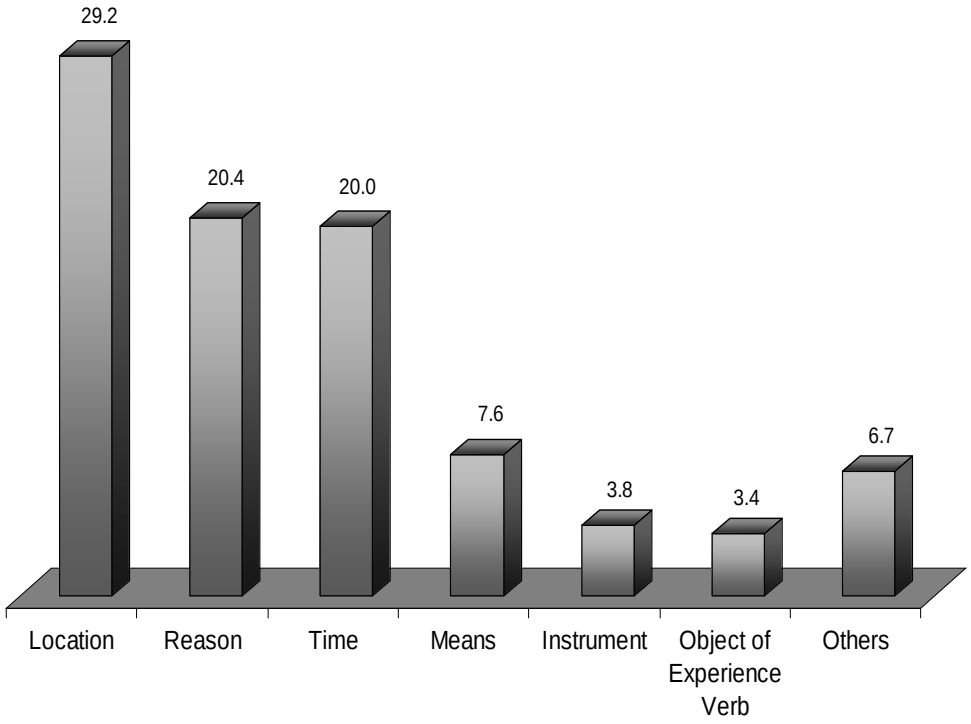

Figure 3: The heads of *ai* relative clauses

All iwi appear to use the *ai* strategy to relativise on the five main roles. The 17 examples of the use of the *ai* strategy to relativise on the object of an experience verb all come from iwi found in the Eastern and Central regions, although a Ngāpuhi consultant confirmed that she would also use *ai* here.

4.1.3.3.2 Direct object as head

Chung claimed that the *ai* strategy (as it is called here) is the standard procedure for relativising on direct object (1978:72). However there are very few textual examples to support this. The following appears to be constructed this way:

1185 Ko te huarahi tuatahi i whakamātau ai ia hei putanga mōna .. (Karetu 1991:39)
TOP the pathway first TAM test ai he as escape for.him

The first pathway he tried as an escape for himself ..

The underlying sentence has the head as a direct object marked by *i*:

1185a. I whakamātau ia i te huarahi tuatahi hei putanga mōna.
TAM test he ACC the pathway first as escape for.him

He tested the first pathway as an escape for himself.

Another example follows, again from a modern text:

1186 .. ko te tāne i moe ai a Rua-pū-tahanga ..
EQ the man TAM marry ai PER Rua-pū-tahanga

.. the man who Rua-pū-tahanga married .. (Jones and Biggs 1995:83)

1186a. I moe a Rua-pū-tahanga i te tāne.
TAM marry PER Rua-pū-tahanga ACC the man

Rua-pū-tahanga married the man.

Most grammars state, in contrast to Chung, that the *ai* strategy is not the preferred method for relativising on a direct object. Bauer was 'unable to find any textual examples' and suggested that the very sparing use of *ai* in such relative clauses could be either a dialectical difference or a recent innovation by younger speakers (1982:316). Harlow noted that examples using this strategy 'are easily found, however many speakers prefer to use other strategies' (2001:265).

The patient argument is usually relativised on as the subject of a passive verb using the gap strategy. Thus 1186 would become:

1186b. .. ko te tāne i moe-a e Rua-pū-tahanga
EQ the man TAM marry-PASS by Rua-pū-tahanga

.. the man who Rua-pū-tahanga married

An option, common in the classical literature, is the use of the possessive relative strategy (described in Section 4.1.3.4 below). As a possessive relative clause, 1186 would become:

1186c. .. ko tā Rua-pū-tahanga tāne i moe ai
EQ of Rua-pū-tahanga man TAM marry ai

.. the man who Rua-pū-tahanga married

There are only six examples in my corpus where the *ai* strategy may have been used when relativising on direct object. All are from modern texts. Three are from the same Ngāti Kahu text and refer to habitual events, in which case the *ai* located after the relative verb is more than likely habitual *ai*. An example follows:

1187 .. ngā mea tika i mahi ai rātou.
the(pl) thing good TAM do ai they

.. the good that they (regularly) did. (Matiu and Mutu 2004:134)

Note that 1185 above could also have habitual aspect. However 1186 above, which is not habitual, and the following, are also modern examples, by Pei Te Hurinui Jones of Waikato:

1188 Ko te tāne i moe ai a Tōrere o te tangata.whenua,ko Manaaki-ao te ingoa.
TOP the man TAM marry ai PER Tōrere of the local.people EQ Manaaki-ao the name

Manaaki-ao was the name of the local man that Tōrere married. (Jones and Biggs 1995:39)

1188 is an unusual construction in which the relative clause is located between the head noun *tāne* and its possessive complement *o te tangata whenua,* and the author may have felt the inclusion of *ai* was required to indicate the relationship between the relative clause and the remainder of the sentence.

With so few examples it would seem useful to also consider examples of direct object relativisation where a locative particle follows the relative verb, arguably taking the place of *ai.* My database contains only two such examples, both from classical texts and by unknown authors:

1189 .. te tahā i taunaha rā
the calabash TAM claim LOC

.. the calabash they had claimed. (Orbell 1992:12)

1190 .. ngā kupu i kōrero rā a Maui ki a ia.
the(pl) word TAM speak LOC PER Maui to PER him

.. the words that Maui spoke to him. (Biggs 1997:13)

It appears that textual examples using the *ai* strategy for relativising on the direct object are quite rare, and some with *ai* may actually be indicating habitual aspect. The *ai* strategy is clearly not the preferred method for relativising on direct objects. It is certainly the case that younger speakers nowadays appear to use the *ai* strategy for relativising on the object, but older speakers do not approve.

4.1.3.3.3 Changes in the head of *ai* relatives

Relative clauses with *ai* are freely occurring in both classical and modern narratives. The following Graph contains data on the relative occurrence of the head in these relative clauses in both classical and modern texts. The data refers to the percentage for the role for that time frame; i.e. 20.4% of classical examples relativise on reason:

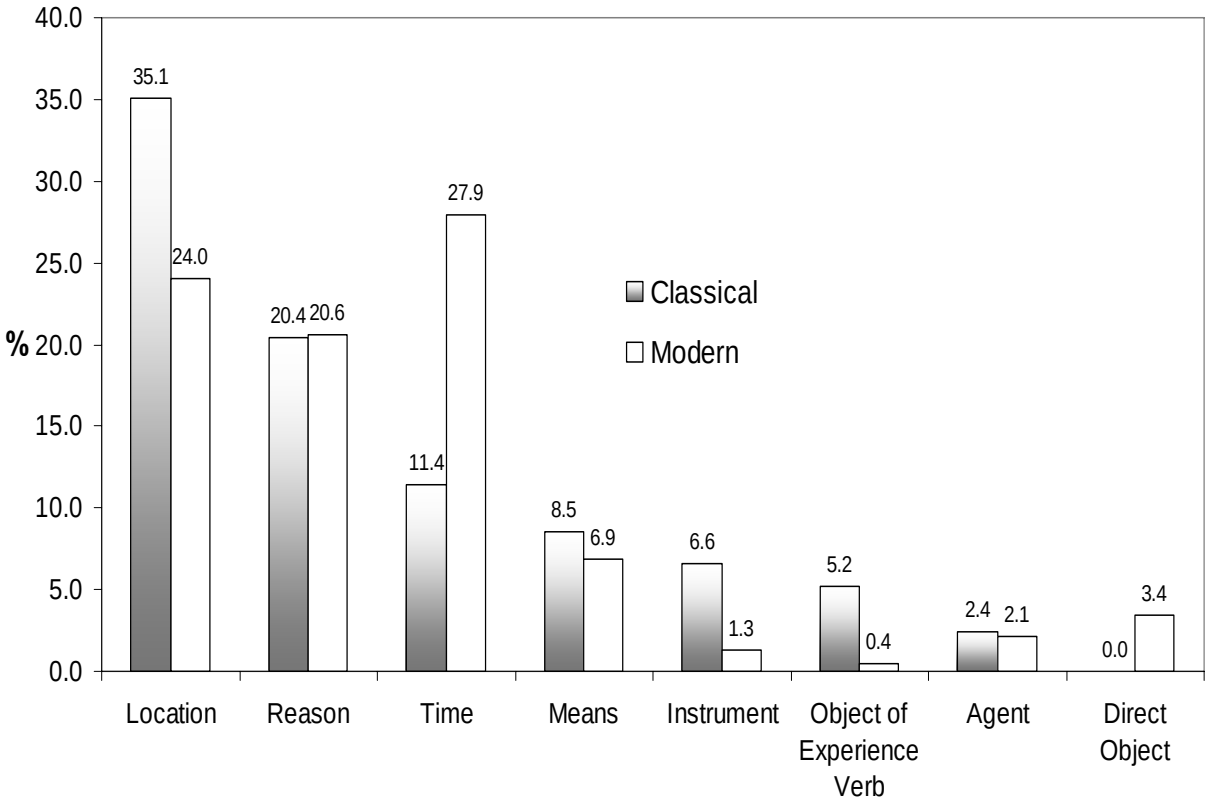

Figure 4: Changes in the head of *ai* relative clauses over time

In both time frames, location, reason and time are the most common roles relativised on. It is notable that modern authors appear to relativise on time more often than classical authors. The older texts tended to use time nominalisations quite frequently, and perhaps contemporary writers follow English patterns in using relative clauses for their time expressions. Direct object, as discussed above, was not relativised on using this method in the classical texts available to me, although some authors of modern texts appear to find this acceptable. The reverse is true for relativising on the object of an experience verb.

4.1.3.3.4 Subject as head of an *ai* relative clause

Although most grammars argue that the *ai* strategy cannot be used for subject relativisation, counter examples have been observed. Although Chapin stated that *ai* cannot refer to the nominative case in any Polynesian language he added a proviso in a footnote (which includes one Māori example):

> There are a very few scattered apparent counter-examples to this generalisation in the texts examined, of which the following are the most serious:
> MAO: Koia nei *te poaka,* i puuhia ai e taku matua.
> This is the pig which was shot by my father...
> Although I have no satisfactory explanation for these, it is worth noting that the antecedent of the *ai* in the MAO example is the logical subject of the verb, and only derivatively (by the Passive) Nominative (1974:277).

Bauer also commented on *ai* in cases of subject relativisation:

> If a Subject phrase is relativised on, *ai* is never required. However, on occasions *ai* is used with Subject relativisation, particularly if the verb is passive. In such cases, the semantic role of the Subject is often (but not always) one associated with relative clauses requiring *ai* (e.g. place phrases) and this may influence a speaker to use *ai*. However, consultants when asked always accepted such sentences without *ai* (1997:381).

Harlow also observed that *ai* can be found in some examples of subject relativisation, but stated that it 'appears to be restricted to subjects which are not agents' (2001:265).

Just how rarely does *ai* occur in subject relativisation? The answer to this question is rather surprising in light of the views expressed above. In my *ai* corpus there are 39 examples involving subject relativisation, nearly 8% of the total. It is difficult to argue that the use of *ai* in subject relativisation is rare or even exceptional. However it should be noted that subject is the commonest grammatical function relativised on in Māori and so 39 examples still represents only a small proportion of all cases of subject relativisation. Nevertheless, a closer look at this *ai* subject relativisation data set is required.

17 of this dataset are from classical texts. Eight of the classical examples are from the writings of Te Rangikāheke of Ngāti Rangiwewehe. Three of the classical examples are written by different authors from Ngāti Porou, and there are single examples from Te Ati Awa of Taranaki, Ngāti Whātua, Ngāti Kuira, and Ngāti Whanaunga. The two remaining classical examples are by unknown authors. Of the 22 modern examples, 13 are by Pei Te Hurinui of Tainui, six are from Ngāti Kahu, and there are single examples from Ngāti Hine and Ngāti Kurī. The final example is from Te Whānau-a-Apanui. In total 27 of the 39 examples come from only three authors so it appears that the use of *ai* in subject relativisation is not particularly widespread.

For 35 of the 39 sentences in my corpus the relative verb is passive. The prominence of the passive in *ai* subject relativisation has been observed before, by Chapin, Bauer and indirectly by Harlow (quoted above) and also by Williams, who noted in the *Dictionary of the Maori Language* that *ai* can be found 'occasionally with passive verbs when the relative is the subject of the verb' (1971:4). Williams offered the following example, which is also part of my data set:

1191 Ka kite-a te wāhi i kimi-hia mai ai e rātou. (Grey 1928:102)
TAM find-PASS the place TAM seek-PASS DIR ai by them

They found the place which they were searching for.

Bauer's suggestion that the role of the subject of the underlying sentence influences a speaker to include *ai* does not appear highly motivated. Only eight of the 39 sentences have the subject occupying a role that would normally be relativised on by the *ai* strategy if it was an oblique function. My examples of this sort mainly involve the subject in the role of location, as in 1191.

It is argued here that *ai* modifies the relative verb in subject relativisation for one of three possible reasons:

- to indicate the habitual aspect of the relative clause
- to indicate an 'unexpected' subject
- to indicate the resultative nature of the relative clause.

Each of these is discussed separately.

4.1.3.3.4.1 Habitual aspect

Consider the previous example which arguably has habitual aspect, in which case the *ai* in the relative clause is habitual *ai*. The underlying sentence of 1191 would have habitual *ai* as follows:

1191a. Kimi-hia mai ai e rātou te wāhi.
seek-PASS DIR ai by them the place

They were continually searching for the place.

The following example is from the Ngāti Whanaunga author Te Horetā Te Taniwha. He describes his first contact with Pākehā and how the strangers reacted to the food they were offered:

1192 Ka kai nei aua tupua i ngā kai i hoatu ai e mātou.
TAM eat LOC those stranger ACC the(pl) food TAM give ai by us

Those strangers ate the food we gave [them]. (Moorfield 1996:149)

As offering food to strangers is customary, the underlying sentence could have habitual *ai* marking the verb:

1192a. Hoatu ai ngā kai e mātou.
give ai the(pl) food by us

We always gave food.

Habitual *ai* does appear in relative clauses. Consider the following:

1193 E waru tekau ngā tamariki Māori whakawhiwhi-a ai ki tēnei karahipi
NUM eight ten the(pl) children Māori award-PASS ai to this scholarship
ia tau, ia tau. (Waititi 1985:149)
each year each year

Eighty Māori children are awarded this scholarship each year.

The habitual aspect of the relative verb *whakawhiwhi-a* is made clear by the repetition of the term *ia tau* 'each and every year'. The underlying sentence would also have habitual *ai* marking the verb:

1193a. Whakawhiwhi-a ai ngā tamariki Māori ki tēnei karahipi ia tau, ia tau.
award-PASS ai the(pl) children Māori to this scholarship each year each year

The Maori children are awarded this scholarship every year.

Deletion of *ai* from 1193 would result in an ungrammatical sentence. Although this is not the case in the other examples, it is argued here that *ai* has been optionally included to indicate the habitual aspect of the relative verb. When presented with the following constructed sentence a Ngāpuhi consultant immediately provided a translation with habitual aspect:

1194 Ko tēnei te huarahi i haere-a ai e rātou.
EQ this the path TAM move-PASS ai by them

This was the path that they traditionally followed.

In total 13 out of the 39 examples in my data set of *ai* subject relativisation can be construed as describing habitual aspect. Most have either *i* or *e* marking the relative verb. I have examples from Ngāti Kahu, Tainui, Te Whānau-a-Apanui, and Ngāti Whanaunga.

4.1.3.3.4.2 Unexpected subject

There are a number of cases in the *ai* subject relativised corpus where the subject of the relative verb is not the expected subject. This can occur for action intransitive verbs used passively and for certain ditransitive verbs. I argue that in these cases *ai* is included because the head is in an oblique role and *ai* makes the relationship between the head and its relative clause clear.

Action intransitive verbs are not often found in passive voice. Consider the following example with a highlighted action intransitive relative verb used passively:

1195 Ko te kāinga tuatahi i **noho-ngia** ai e Te Whānau Moana ko Karikari.
TOP the home first TAM live-PASS ai by Te Whānau Moana EQ Karikari

The first dwelling place that Te Whānau Moana stayed at was Karikari. (Matiu and Mutu 2004:34)

The underlying sentence has the subject in the role of location:

1195a. I noho-ngia e Te Whānau Moana te kāinga tuatahi.
TAM live-PASS by Te Whānau Moana the home first

Te Whānau Moana stayed at the first dwelling place.

It is notable that in all relative clauses containing *noho-ia* and *haere-a* (and their dialectical variants) in my corpus of narratives, either *ai*, a locative particle, or *ana* follows the relative verb. This suggests that the *ai* strategy is used to form relative clauses with these passive verbs. It is also

not difficult to see why one of these particles would be felt required by native speakers. The subject of an intransitive verb used passively is somewhat unexpected, occupying an oblique role, and quite unlike the patient role which is the normal subject of a passive canonical transitive verb. A further example follows:

1196 Koirā tā.rāua haere, ā, ka tawhiti te wāhi i haere-a ai e rāua,
that.is their travel and TAM distant the place TAM move-PASS ai by them
ka pahemo mai hoki a Tāmaki.
TAM pass.by DIR also PER Tāmaki

So they went on and covered a great distance to beyond Tāmaki. (Jones and Biggs 1995:137)

The relative clause with a more literal translation is:

1196a. .. te wāhi i haere-a ai e rāua
the place TAM move-PASS ai by them

.. the place they went to

The underlying sentence written in active voice has the surface subject realised as the goal of the motion:

1196b. I haere rātou ki te wāhi.
TAM move they to the place

They went to the place.

This sentence does not appear to have habitual aspect. It is proposed that *ai* is included to indicate that the subject of the relative clause is in an unusual role. In total there are six sentences similar to the above examples in my corpus.

Ditransitive verbs may also have unexpected subjects. The following example has two relative clauses that share the same head but only the first includes *ai*:

1197 .. te whenua i kōrero-tia ai e ia, i kite-a e ia ..
the land TAM speak-PASS ai by him TAM find-PASS by him

.. the land talked about by him and discovered by him .. (Jones and Biggs 1995:15)

The sentences underlying the relative clauses, when written in the active, show that the head is the object of *kitea* and a PP introduced by *mō* for *kōrerotia*:

1197a. I kōrero [a Kupe] mō te whenua.
TAM speak PER Kupe about the land

Kupe talked about the land.

1197b. I kite [a Kupe] i te whenua.
TAM find PER Kupe ACC the land

Kupe discovered the land.

Verbs of speaking can govern a direct object as well as a PP in an oblique role:

1198 I kōrero a Kupe i ēnei kupu mō te whenua hou.
TAM speak PER Kupe ACC these word about the land new

Kupe said these words about the new land.

Either of the phrases following the verb may become the surface subject when the sentence is in the passive voice. I argue that when the non-patient phrase is the head of the passive relative verb the speaker inserts *ai* to indicate to the listener the unexpected subject. There are five such examples in my corpus.

Consultants were largely happy with the examples in this section. There was no suggestion from any that the sentences were ungrammatical.

4.1.3.3.4.3 Resultative *ai*

The above do not account for those situations of *ai* subject relativisation where *ai* is considered optional, and where some consultants reject it entirely. I account for these by arguing that the *ai* found in these relative clauses is not resumptive *ai* at all, but resultative *ai*. Consider the following example:

1199 .. te tiki-nga o Kae, i uta-ina ora-tia mai ai hei utu
the fetch-NOM of Kae TAM load-PASS alive-PASS DIR ai as revenge
mō Tutunui (Grey 1928:54)
for Tutunui

.. the fetching of Kae, who was accordingly carried off alive as revenge for Tutunui.

Consultants agreed that the sentence does not require *ai*. One consultant said that *ai* could be deleted but that in this sentence it refers to the reason why Kae was carried off alive. The underlying sentence has the head *Kae* realised as its subject and resultative *ai* could follow the verb:

1199a. I uta-ina ora-tia mai ai a Kae hei utu mō Tutunui.
TAM load-PASS alive-PASS DIR ai PER Kae as revenge for Tutunui

Kae was accordingly carried off alive as revenge for Tutunui.

The *hei* segment in 1199 recapitulates the reason which appears earlier in the discourse. In the following example, the relative clause is resultative and the *hei* segment has a similar function:

1200 ka rite katoa ngā mea i āta whakarite-a ai hei mahi mō tēnei mea.
TAM ready all the(pl) thing TAM carefully plan-PASS ai as work for this thing

.. the things that had been carefully planned were all ready for the work at hand. (Biggs 1997:109)

The underlying sentence contains resultative *ai*:

1200a. I āta whakarite-a ai ngā mea hei mahi mō tēnei mea.
TAM carefully plan-PASS ai the(pl) thing as work for this thing

The things were therefore carefully planned for the work at hand.

In the following example, the reason for selecting the particular tree is marked by *kia,* and resultative *ai* marks the relative verb:

1201 Ko te rākau i tohu-ngia ai kia tua-ina ..
TOP the tree TAM select-PASS ai TAM cut.down-PASS

The tree selected to be felled .. (Jones and Biggs 1995:17)

There are 11 examples in my *ai* subject relativisation data set where resultative *ai* appears to be marking the relative verb. The underlying sentences are identical to those described in Section 5.3.6. In all cases *ai* is considered optional, although its inclusion does appear to indicate to the listener the need to refer to reason or purpose elsewhere in the discourse. It is also interesting to note that in many instances the *ai* containing utterance is presenting a conclusion to, or a summation of, the preceding discourse, and this may be the underlying principle influencing the inclusion of *ai*. *Ai* is associated with reason in many of its uses. It seems that a reference to a reason is provided, at least in some instances and for some speakers, by the inclusion of optional *ai* after the relative verb in these sentences. Examples come from Te Arawa, Ngāti Porou, and Tainui iwi.

4.1.3.3.4.4 The future?

It does appear that the use of *ai* in subject relativisation is becoming more acceptable, although my consultants do not approve. The following sentence, which comes from the Māori version of the 2006 Census Form, contains a highlighted relative clause which uses *ai* in subject relativisation:

1202 E hia tau koe e noho ana ki taua whare noho **i tuhi-a ai**
NUM many year you TAM live TAM at that house live TAM write-PASS ai
i te pātai 5? (Statistics New Zealand 2006)
at the question 5

How long have you lived at the address you gave in question 5?

My consultants rejected this sentence with *ai*, one commenting that *taua* was also inappropriate because its NP was clearly identified. The underlying sentence has *whare noho* as its subject:

1202a. I tuhi-a te whare noho i te pātai 5.
TAM write-PASS the house live at the question 5
The address was written in question 5.

4.1.3.4 The possessive strategy

In this strategy the underlying subject of the relative clause is realised either as a possessive determiner or a possessive modifier of the head, and *ai* (or a locative particle) follows the verb. In the following, the underlying subject of the relative clause *rāua* 'they' appears as a possessive determiner to *kāinga* 'home':

1203 Ko tō.rāua kāinga i noho ai, ko Hawaiki.
TOP their home TAM live ai EQ Hawaiki

The place where they lived was Hawaiki. (Reedy 1993:34)

The underlying sentence has *rāua* as the subject of the verb, and the head is realised as an oblique PP phrase introduced by *i* 'at' and fulfils the role of inner location:

1203a. I noho rāua i te kāinga.
TAM live they at the home

They lived at the place.

The following generated example has the subject of the relative clause, *Uenuku,* realised as an *o*-possessive modifier of the head noun:

1204 Ko te kāinga o Uenuku i noho ai ko Hawaiki.
TOP the home of Uenuku TAM live ai EQ Hawaiki

The place where Uenuku lived was Hawaiki.

Approximately 9% of the relative clauses that contain *ai* in my database are possessive relatives. The construction appears freely in classical texts and was used by a wide range of iwi. Examples

from modern texts are harder to find. My consultants produced sentences that accord with the observations made here but most suggested that they would not often use the construction.

This strategy is used to relativise on either direct object or obliques. Only certain roles appear to be relativised on. I have examples for source and goal for movement verbs, for time examples that describe the duration of an event, for inner location, and rarely for reason and means. It could be argued that this construction is most productive for those roles which are licensed by the verb.

There appears to be a clear pattern in which of the two forms of the possessor is used. All examples of relativising on oblique phrases in my corpus use the *o* form. In the following example, which relativises on the location *kāinga* 'village', the subject is realised as an *o* possessive determiner:

1205 Tō.rāua kāinga i tae mai ai ko Kaka-horoa.
their village TAM arrive DIR ai EQ Kaka-horoa

The village they came from was Kaka-horoa. (Biggs 1997:185)

The following example relativises on the means by which Manaia was discovered, and he appears as an *o* possessive modifier of *tohu*:

1206 .. te tohu o Manaia i kite-a ai ko tētahi wāhi o te ringa,
the sign of Manaia TAM find-PASS ai EQ a part of the arm
he mea whakairo. (Grey 1928:80)
a thing carve

.. the signs by which [the body of] Manaia was recognised were some tattoos on one part of the arm.

Harlow observed that the *a* form is possible when the head noun is in the role of reason, and cited the following example (2001:270):

1207 Ko tāku take e waea atu nei ..
TOP mine reason TAM phone DIR LOC

The reason I'm phoning is ..

I have found no textual examples to confirm this. The example above is clearly a modern one, and it could be that the use of the possessor has been reinterpreted here, although the factors that influence the choice between *o* and *a* remain unclear. My consultants felt that *o* was the correct possessor in these clauses.

In the case of the object, all the examples in my corpus use the *a* form. In only one example the relative verb is an experience verb so this structure appears to favour canonical transitive objects:

1208 He nui āna waiata i tito ai .. (Karetu 1991:116)
CLS many his(pl) song TAM compose ai

There are many songs that he composed ..

My consultants are in agreement that these sentences are not well-formed without *ai, ana,* or one of the locative particles modifying the relative verb. As with the *ai* strategy, the difference in meaning, if any, that these different particles bring to the sentence is not at all clear. In my corpus of narratives *ai* is more common than the other particles.

4.1.3.5 The fused relative construction

A variation on possessive relative clauses is the 'fused relative' construction (Huddleston and Pullum 2002:1070). In these the head of the relative clause appears to be the determiner *te* or Ø. The underlying subject of the relative clause fuses with the head to become a substantival possessive. Fused relative clauses require *ai* or a locative particle after the relative verb.

In the following example, the underlying subject of the relative clause *ia* 'he' has fused with *te* to become the possessive *tāna* 'his':

1209 .. kātahi ka tuku-a atu e Turi ki tāna i hiahia ai. (Grey 1928:95)
then TAM allow-PASS DIR by Turi ACC his TAM want ai

.. then Turi let him have his own way.

The underlying sentence has two gaps that need filling, the subject, and a generic filler such as *mea*:

1209a. I hiahia ia ki te mea.
TAM want he ACC the thing

He wants the thing.

The following example shows the structure when the head is plural:

1210 Heoti anō āku i kite ai o tēnei motu, ka mutu.
that EMPH mine(pl) TAM see ai of this island TAM ended

That was all I saw on this island. (Biggs 1997:95)

If the subject of the relative clause is not a pronoun the possessive determiner *tā* is used. In the following, the underlying subject, Kahukura, has fused with *t-*:

1211 Pērā-tia ana e Toi me tā Kahukura i kī atu ai ki a ia.
like.that-PASS TAM by Toi and of Kahukura TAM say DIR ai to PER him

Toi did as Kahukura had told him. (Reedy 1997:59)

Around 5% of the relative clauses that contain *ai* in my database are fused relatives. Of these, 49 examples are from narratives, equally divided amongst classical and modern texts. There are examples used by authors from iwi throughout the North Island, suggesting that this construction is quite widespread in its usage and still productive.

Fused relatives function as ordinary NPs in their sentences, as in the following:

1212 Ko te ahi anake tāku e tiki atu ai. (Grey 1928:17)
TOP the fire only mine TAM fetch DIR ai

It is only fire that I want to bring back.

Fused relatives are often required as the NP complement of a preposition. For example when making comparisons, the object of comparison is a NP complement of the preposition *ki*:

1213 Kua rite mātou **ki** te moa. (Huia 1997:27)
TAM like we to the moa

We have become like the moa.

When the object of comparison is verbal, a fused relative can be used:

1214 Kua rite **ki** tāna i wawata nui ai .. (Huia 1998:10)
TAM like to his TAM wish main ai

It was just like he had wished ..

The most common examples in my corpus have an experience verb as relative verb and the filler as its object, as in the previous example. Also reasonably common, particularly in older texts, is where the filler is the object (or complement) of verbs of speaking or ordering, as in the following:

1215 .. i runga anō i tāna i whakarite ai ..
at upon EMPH at his TAM arrange ai

.. in accordance with his word .. (Jones and Biggs 1995:165)

In other examples the filler occupies the place of the direct object of a transitive verb:

1216 He aha tāu e inu ai?
CLS what your TAM drink ai

What will you drink? (Ngata 2000:24)

Because the possessive pronouns are substantival the neutral possessive pronouns such as *tō* 'your' cannot be used in this construction. In my corpus the possessive head of the relative clause is

marked by the possessor *a* without exception, irrespective of the subclass of relative verb, or the role of the filler in the underlying sentence.

My consultants consider fused relatives incorrect without *ai*, *ana*, or a locative particle following the relative verb. They did not sense any difference in meaning between these particles. *Ai* is the most commonly occurring option in the narratives, but not in present tense where *ana* is preferred.

4.2 Fronted constituents

4.2.1 Background

In this section those situations where resumptive *ai* is included after the verb to mark the fronting of some adverbial constituent of the sentence are described. The term constituent is used here to refer collectively to adverbials that are realised as either phrases or clauses. At times it is useful to treat phrases that are nominalisations separately.

Fronting occurs for emphasis. In discourse acts 'what comes first creates the perspective from which everything else in the clause of sentence is viewed' (Gee 1999:156). The fronted constituent is often called the theme and the remainder of the sentence the rheme (Chimombo and Roseberry 1998:89). In Māori narratives it appears to be a common strategy to thematise certain adverbials.

The following example has a future time phrase following the verb:

1217 Ka haere ahau ki te hui ā tērā wiki.
TAM move I to the meeting at that week

I will go to the meeting next week.

The adverbial phrase can be fronted:

1217a. Ā tērā wiki, haere ai ahau ki te hui.
at that week move ai I to the meeting

In 1217a the TAM *ka* no longer appears and *ai* is located after the verb. Consultants affirm that *ai* refers the listener to the time adverbial, and that the adverbial is being emphasised. An alternative exists in which *ka* marks the verb, and in this case *ai* is not required:

1217b. Ā tērā wiki, ka haere ahau ki te hui.
at that week TAM move I to the meeting

Most grammars contain examples of *ai* sentences with fronted adverbials, but few have attempted any explanation for the actual function of *ai*. Common were examples of fronted time and why questions (which are fronted reason adverbials):

1218 He aha a Turi i haere ai ki Taupo?
CLS what PER Turi TAM move ai to Taupo

Why did Turi go to Taupo? (Williams and Williams 1940:53)

Wills is worthy of mention as he appears to be the first to have specifically observed that *ai* appears to be suppressed by the use of the TAM *ka* in fronted time adverbials (1950:92). He indicated that

the sentence, '*āhea koe tae mai ai?*' can also be rendered as, '*āhea koe ka tae?*', although he did not specify any difference in meaning, and provided a single translation; 'when will you arrive?'

Harlow described *ai* marking what he called 'fronted comments' in the sentence. He stated that *ai* is required for fronted comments of time, reason, means, and location, the last being 'rather archaic' (2001:200-5). He further proposed, as described above, that inclusion of *ai* brings the fronted constituent into focus. This hypothesis will be evaluated below.

It was Bauer who provided the first reasonably comprehensive coverage of the situations where *ai* is required in sentences with a fronted constituent, along with an hypothesis for its use. She argued that 'those adverbials which normally occur in initial position … never require *ai* ' (1997:376) citing concessive and conditional adverbials as examples. She concluded that 'this suggests that *ai* is introduced to mark the fronting of an adverbial which originates after the verb' (1997:376). Bauer admitted that *ai* was 'sensitive to TAMs in unpredictable ways' (1997:389), and it appears that much of the confusion with respect to fronted constituents relates to the use of *ka*.

Bauer's hypothesis is worth evaluating. In the case of concessive adverbials, which are introduced by *ahakoa* 'however', sentence-initial appears to be their preferred position. Of the 245 sentences containing *ahakoa* in my corpus, just under 72% have the adverbial constituent fronted:

1219 Ahakoa i whara, kāre i mate rawa.
although TAM hurt NEG TAM dead EMPH

He was hurt but not fatally. (Mead 1996a:54)

In not one example is the fronting of the adverbial marked by *ai*. However, it is certainly not unusual to find the adverbial following the main clause:

1220 Ka whai haere rāua i ahau ahakoa haere ahau ki hea.
TAM follow move they ACC I although move I to where

They followed me no matter where I went. (Reedy 2001:136)

Similarly, conditional adverbs, initiated with *mehemea* 'if' (or its variants) are normally sentence initial. Of the 141 examples in my corpus, nearly 87% have the adverbial fronted, and there are no examples with *ai* following the main verb:

1221 Mehemea kāhore kōrua e utu mai, ka patu-a kōrua. (Huia 1997:34)
if NEG you TAM pay DIR TAM beat-PASS you

If you don't pay up you will be beaten.

This data concurs with Bauer's view that these adverbials do not require *ai* when fronted. But is this because they are in their preferred position when fronted? In my corpus of narratives, a time

adverbial is fronted in around 75% of instances, which is not significantly different to the data presented above for concessive adverbials. However time adverbials often require *ai* when fronted. It appears that the argument of *ai* marking when an adverbial is out of its preferred position is not well motivated.

The adverbials that appear to allow *ai* marking when fronted are those of reason, time, means, and (rarely) location. It is argued here that these are the adverbials marked by *ai* when fronted for four reasons:

- They are usually PPs, and resumptive *ai* generally only resumes phrases. Concessive and conditional adverbials are usually clausal.
- They are all peripheral roles, and only these unlicensed roles may be readily fronted.
- They can be realised as cleft sentences with the verbal component as a relative clause, and there is almost certainly a historical relationship between the fronted adverbial and the cleft sentence constructions.
- The presence of *ai* in a sentence with a fronted adverbial suggests a dependence between the adverbial and the action described by the *ai*-marked verb. Since concessive and conditional adverbials are unrealised this sort of dependence is illogical.

Each of these adverbials will be described in turn after a description of the fronted constituent database.

4.2.2 The fronted constituent database

There are 711 sentences in my database that contain fronted adverbials. Of these 511 contain *ai.* 437 of the *ai* corpus are from the narratives, with 192 from the classical and 234 from the modern time frames respectively. The sentences without *ai* have been deliberately selected from the narratives as a comparison.

The following Graph contains data on the relative occurrence of sentences with fronted adverbials in which the VP contains *ai* in both classical and modern texts available to me:

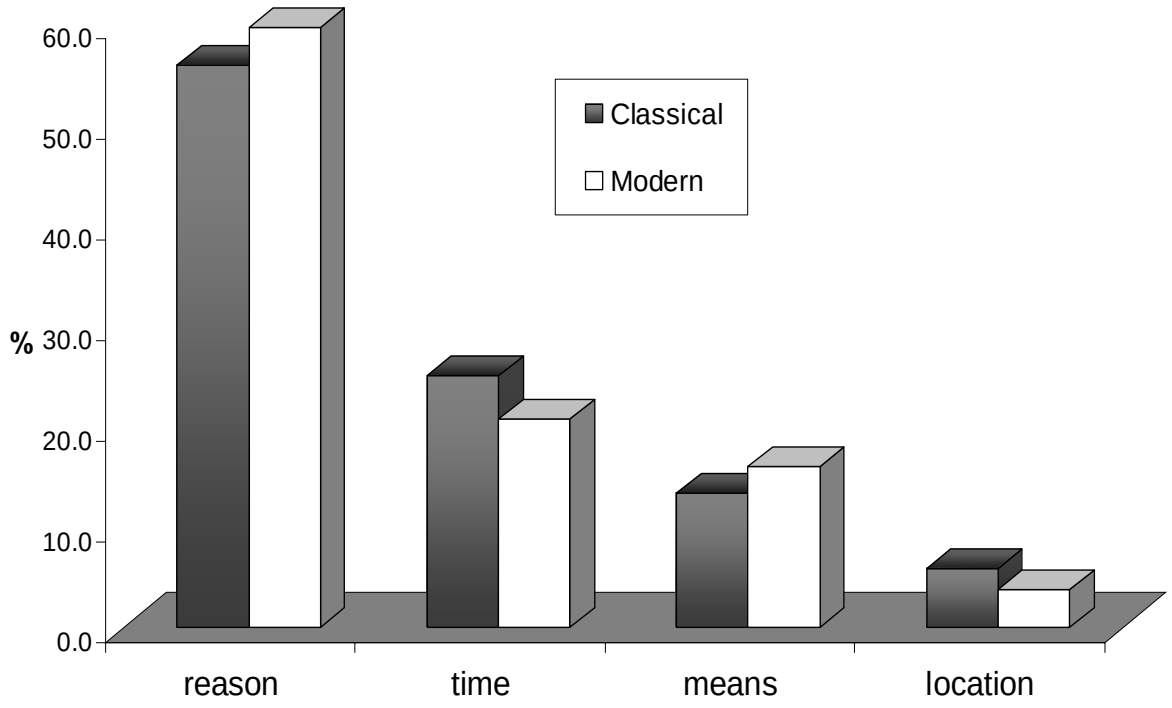

Figure 5 Fronted adverbials marked by *ai* in narratives

Reason is the most common type of adverbial that has its fronting marked by *ai* and fronted location adverbials are reasonably uncommon in both time frames. Most importantly, there appears to have been no significant changes in the use of *ai* to mark the fronting of each of the four types of adverbial in written texts over time.

4.2.3 Reason/Cause

4.2.3.1 Background

Reason or cause (henceforth reason) is expressed in a variety of ways in Māori. The following sentence, with a non-fronted reason phrase is followed by its fronted variant:

1222 I tangi māua i te mataku.
TAM cry we from the fear

We cried because of fear.

1222a. Nā te mataku māua i tangi ai.
belong the fear we TAM cry ai

Note that in 1222a the preposition introducing the reason phrase has changed and *ai* has been inserted after the verb. Consultants confirm that the reason adverbial has been located in the

sentence initial position for emphasis, and that *ai* draws the attention of the listener to that adverbial.

He also introduces reason adverbials:

1223 He aha koutou i whakamataku ai i a māua?
CLS what you TAM frighten ai ACC PER us

Why did you frighten us? (Reedy 2001:28)

There is a preference in Māori for expressing reason adverbials as phrases. Those which translate as verbal are usually realised as nominalisations:

1224 Nā te haere-nga mai o Paki, i oti ai te mahi.
belong the move-NOM DIR of Paki TAM finished ai the job

It was because Paki came that the job was completed. (Harlow 2001:214)

Clausal examples can be found. The following has a fronted reason clause introduced by *nā te mea* 'because':

1225 Nā.te.mea kua hapū ahau, ka noho ahau ki tō taha.
because TAM pregnant I TAM stay I at your side

Because I am now pregnant I will stay with you on earth. (Mead 1996a:38)

Nā and *he* are the usual particles that introduce fronted reason adverbials. Biggs claimed that when *no te* combines with *ai* the meaning of 'because' is added to the utterance (1973:106). Certainly occasional examples such as the following can appear to have a reason interpretation, but here it is argued that *nō* introduces past time adverbials and the interpretation should be temporal:

1226 Nō te kata-nga a tīwaiwaka i a Māui i kūti-a ai
belong the laugh-NOM of fantail ACC PER Māui TAM cut.off-PASS ai
e Hine-nui-te-pō. (Grey 1928:23)
by Hine-nui-te-pō

It was when the fantail laughed at Maui that he was crushed by Hine-nui-te-pō.

He is usually found in why questions which are seeking general information whereas *nā* refers to specific reason. Each preposition is discussed in turn below.

4.2.3.2 *Nā* reason phrases

Nā reason phrases always appear to be fronted in written texts. The following is typical, with *i .. ai* marking the verb and the subject raised:

1227 Nā te pūrei whutuporo ahau i ngenge ai. (Waititi 1991:120)
belong the play football I TAM tired ai

I'm tired through playing football.

There are 93 sentences in my corpus that contain fronted *nā* reason adverbials, 65 of which contain *ai.* 21 of the *ai* sentences are from classical texts and 39 from modern. There are examples from all iwi in both time frames. The remainder are non-*ai* examples which have been deliberately selected for comparison.

In the narratives, half of the sentences containing fronted *nā* reason phrases have *ai* included in the VPs, although this has changed over time. In the classical texts, 63% have *ai*, compared to 45% in their modern counterparts.

Considering sentences with *ai* first, the verb is invariably marked by *i*:

1228 Nā te maro a Taranga i tau ai;
belong the skirt PER Taranga TAM comely ai

Taranga looked good because of her skirt; (Reedy 1993:20)

The subject of the sentence, where present, may be located either before or after the VP, with a preference for the former in the case of pronouns:

1229 Nā te aha kē rā **au** i pēnei ai .. (Karetu 1991:170)
belong the what diff EMPH I TAM like.this ai

Why was I thinking like this ..

For a passive verb, it is common for the agent phrase to precede the subject:

1230 .. nā konei i tito-a ai e Te Rangiāmoa tana tangi?
belong here TAM compose-PASS ai by Te Rangiāmoa his song

.. was it because of this that Te Rangiāmoa composed his song? (Karetu 1991:114)

A subject marked by *ko* can not precede the adverbial. Nor have I located any examples where a *ko* topic is located between the adverbial and the VP. An informant said that the following generated example is ungrammatical:

1231 *Nā te pukumahi, ko te tauira ka whiwhi ki te tohu tuatahi.
belong the hardworking TOP the student TAM achieve ACC the mark first

It was because of hard work that the student achieved the top mark.

All verb types can be found in sentences with fronted *nā* reason phrases. For neuter verbs the fronted adverbial appears to be an agent of the verb:

1232 Nā Rewi i mahue ai te wahine.
belong Rewi TAM abandoned ai the woman

Rewi abandoned the woman. (Bauer 1997:507)

These sentences require further examination. The following sentence with a neuter verb *mate* 'be sick, killed' is the unmarked form in which the agent of the neuter verb is a PP introduced by *i*:

1233 I mate a Maui i a Hine.
TAM dead PER Maui by PER Hine

Maui was killed by Hine.

The marked form with the *nā* phrase fronted appears to be an example of fronted agent:

1233a. Nā Hine a Maui i mate ai.
belong Hine PER Maui TAM dead ai

Maui was killed by (because of) Hine.

My consultant felt that without further information all that could be inferred from 1233a was that Hine caused Maui's death. When asked for a paraphrase of 1233 my consultant provided the following with the transitive verb *whakamatea* 'to be killed':

1233b. I whakamate-a a Maui e Hine.
TAM kill-PASS PER Maui by Hine

It appears that for a neuter verb the fronted *nā* phrase is general reason which incorporates an agent. This does not appear to be an idiosyncrasy of this particular verb as the same ambiguity has been attested for a number of neuter verbs. For 1234 my consultant felt that only context would indicate whether it was Hone who actually did the work or was the reason for it, and similarly for 1235, more information was needed to determine whether the bus left Mere behind or somehow caused her to be late:

1234 Nā Hone te mahi i oti ai.
belong Hone the work TAM finished ai

The work was finished by (because of) Hone.

1235 Nā te pahi a Mere i mahue ai.
belong the bus PER Mere TAM left.behind ai

Mere was left behind by (because of) the bus.

Without *ai*, the most common construction has the verb marked by *ka*:

1236 Nā te ngāwhā, ka waikura ngā whare me ngā mīhini. (Waititi 1985:105)
belong the sulphur TAM rust the(pl) house and the(pl) machine

The sulphur rusted the buildings and the machinery.

Occasionally the verb is marked by *kua*:

1237 Nā te Pākehā kua noa noa iho ..
belong the Pākehā TAM ordinary freely down

Because of the Pākehā it has become desecrated .. (Biggs 1997:5)

Observations about the position of the subject and verb type made above also apply to these non-*ai* sentences.

4.2.3.3 *Nā* reason nominalisations

When the reason given in an utterance refers to some action or state, it is usually realised as a nominalisation. When non-fronted, these are PPs introduced by *i*.

1238 Ko ōna pakikau kua pahuhu kē ki raro i te kowhana-nga
TOP her(pl) garment TAM slip.off diff to down cause the toss-NOM
a ngā ringaringa. (Grey 1928:197)
of the(pl) arms

Her clothes slipped down because of the tossing of her arms.

When reason nominalisations are fronted for emphasis, *nā* introduces the phrase, and *ai* may be located after the verb, as in the following example by Waititi:

1239 Nā te whati-nga o ngā mata o te moua i pēnei ai. (1985:46)
belong the smash-NOM of the(pl) blade of the mower TAM like.this ai

The smashing of the blades of the mower caused it to be like this.

Where the reason refers to an action a Canga nominalisation is used, as in the previous example. Where the reason refers to some quality or state a stem nominalisation is used:

1240 Nā tōna mate i kore ai a ia e kai.
belong his illness TAM NEG ai PER he TAM eat

It was his illness which caused him to abstain from food. (Stowell 1911:8)

A nominalisation is verbal in meaning. The sentence underlying the nominalisation in the previous example is as follows:

1240a. I mate ia.
TAM ill he

He was ill.

The subject of the underlying sentence is realised in the nominalisation as some form of possessive. In 1239 it is a possessive modifier, and in 1240 it is a possessive determiner. The possessive takes either *a* or *o,* and the choice between is determined largely by the class of the nominalised verb. All nominalised neuter, state intransitive, and action intransitive verbs in my corpus take *o* for their subject. The following has a nominalised action intransitive verb and the underlying subject is an *o* noun modifier:

1241 Nā te kake-nga ōna ki runga ki te rākau i ora ai a Hau.
belong the climb-NOM his(pl) to upon to the tree TAM safe ai PER Hau

Hau was saved by climbing up a tree. (Whakatara 1892:79)

In my corpus nominalised experience verbs also usually take *o*, except for one example with *kite* 'see' (although it should be noted that the classification of *kite* is problematic as it often has a patient rather than a stimulus as its second argument):

1242 Nā te kite a ngā kaitito waiata i tēnei āhuatanga .. (Karetu 1991:165)
belong the see of the(pl) composer song ACC this characteristic

Because the composers see these things ..

Although the nominalisation of a canonical transitive verb does not show the distinction between active and passive, when the underlying form is passive the subject usually takes *o* as in 1239, whereas the active form takes *a*:

1243 Nā te whakamārama a Hōne i tana take, ka mōhio te iwi.
belong the explain of Hōne ACC his reason TAM know the people

It was through Hōne's explanation of his concern, that the people knew (about it). (Harlow 2001:209)

However this is not always predictable. In the following, the sense of the nominalised verb is active yet *o* marking is used:

1244 Nā te kī-nga o te Kawanatanga i.te hē rātau .. (Karetu 1991:99)
belong the say-NOM of the Government TAM wrong they

Because the Government admitted that they were wrong ..

In the context of this utterance, the Government had been reluctant in apologising for land confiscations, and the use of *o* possibly indicates that the apology was forced from them. In the following, the sense of the nominalisation is also active and again *o* is used:

1245 Nā te whakamoemiti o te iwi ki tōna ora-nga ..
belong the praise of the people for her survive-NOM

Because the people were so delighted by her survival .. (Orbell 1992:69)

Bauer suggested that 'control (and not verb category) is crucial for the use of A, while O is the unmarked category' (1997:519), and these examples seem to conform with her view.

There are 66 sentences in my corpus that contain fronted *nā* reason nominalisations, 34 of which contain *ai*, and the remainder are non-*ai* examples which have been included for comparison. Of the 34 *ai*-containing sentences, six are from classical texts and 23 from modern.

For the *ai* corpus, the verb is invariably marked by *i*. I have examples from 12 different iwi suggesting that this construction is widespread in its usage and still productive.

Where *ai* is not used, *ka* is the most commonly used TAM, although *kua* (1247) is also possible:

1246 Nā te kaha o āna takahi haere, ka pakaru te rangi.
belong the strong of his(pl) stamp move TAM smash the sky

So forceful was his stamping about that he broke the floor. (Mead 1996a:56)

1247 Nā te māuiui o taku tama, kua kore au e haere. (Huia 1999a:27)
belong the sickly of my son TAM NEG I TAM move

Because my child was sick I didn't go.

4.2.3.4 *He* reason adverbials

Reason phrases are introduced by *he* when the reason is some general circumstance or quality. These are always sentence initial. An example follows:

1248 He aha koe i karanga ai ki a au?
CLS what you TAM call ai to PER me

Why did you call me? (Ngata 2000:29)

He is often followed by *aha* 'what', although other bases are possible.

1249 Āe, he waimarie i tae mai ai. (Waititi 1991:112)
yes CLS lucky TAM arrive DIR ai

Yes, it was (because of) good fortune that we got here.

The subject, if present, may be located either before or after the main verb. When the subject is a pronoun it is preferably located before the verb as in 1248. A *ko*-marked subject can not precede the adverbial.

There are 112 sentences in my corpus that contain fronted *he* reason phrases. 90 of these contain *ai*, and 28 of these are from classical texts and 62 from modern. There are examples from many iwi in both time frames.

80% of the sentences in the narratives which have a fronted *he* reason phrase have *ai* marking the verb. The remainder have either a locative particle or *ana* after the verb, usually in combination with the TAM *e*:

1250 Ka mea atu ki a ia, ‘He aha koe e tangi nā?’
TAM say DIR to PER him CLS what you TAM cry LOC

He said to him, ‘Why are you weeping?’ (Reedy 1993:100)

The most common format for the *ai* corpus is with the TAM *i*, giving a past reading:

1251 He aha i hua-ina ai tō.mātou hapū paku ko Ngāti Rangi?
CLS what TAM name-PASS ai our hapū small EQ Ngāti Rangi

Why was our small hapū called Ngāti Rangi? (Pōtatau 1991:6)

The combination of *e* with *ai* refers to the future:

1252 He aha ahau e māharahara ai mō tērā?
CLS what I TAM worry ai about that

Why should I worry about that? (Reedy 2001:57)

There is also a construction with *ai* where there is no TAM marking the main verb. These are all negative constructions using the archaic negator *tē* ‘not’, common in classical texts, but now rarely used:

1253 He aha kōrua tē haere tahi mai ai? (Grey 1928:22)
CLS what you NEG move together DIR ai

Why didn't you come back together?

It is more common nowadays to use *kore* ‘not’ in negative reason adverbials, with the following example showing the position of *ai* in these sentences:

1253a. He aha kōrua i kore ai e haere tahi mai?
CLS what you TAM NEG ai TAM move together DIR

Nowadays it is not uncommon for some speakers to include *ai* after *aha*, instead of (or as well as) after the main verb in why questions. The following example was heard on a Māori television programme:

1254 *He aha ai koe i kōrero pēnā (ai)?
CLS what ai you TAM move DIR ai

Why did you speak like that?

My consultants generally do not approve of these utterances, although many fluent speakers pronounce *he aha ai* as a single unit even when a main verb follows requiring *ai*. There are no classical examples like this in my corpus.

It appears from the above evidence that marking the fronting of *he* reason adverbials is obligatory. I have no explanation for the following example which does not have *ai* or an equivalent after the verb, unless *mai* serves this function here:

1255 He aha koe i haere mai?
CLS what you TAM move DIR

Why have you come here? (Tremewan 2002:169)

However, this seems unlikely as *mai* is found elsewhere in combination with *ai* and does not normally make *ai* redundant. The following example is interesting because the first verb has *mai* but the *tē* clause is marked with *ai* as expected (it is from a proverb and the lack of *ai* may be due to poetic licence):

1256 He aha koe i haere mai i te rourou iti a Haere,
CLS what you TAM move DIR with the basket small of Traveller
tē noho atu ai koe i te tokanga nui a Noho?
NEG stay DIR ai you with the basket large of Stay-at-home

Why did you come with the small basket of Traveller, instead of remaining with the large basket of Stay-at-home. (Biggs 1997:249)

4.2.3.5 *Koia*-initiated reason clauses

Clauses introduced by *koia* ‘that is why’ are commonly used to explain why something has occurred. In the following complex sentence, the final clause is initiated by *koia* and its verb is marked by *ai*:

1257 I mōhio-tia hoki e Uenuku ki te tangihanga o te whaitiri paorangi,
TAM know-PASS EMPH by Uenuku by the cry of the thunder resounding
koia ia i karanga ai.
that.is he TAM call ai

For Uenuku recognised the resounding of the crashing thunder; that's why he called these words. (Reedy 1997:42)

Koia is sentence initial in independent sentences:

1258 Koia ahau tē haere ai.
that.is I NEG move ai

That is the reason why I did not go. (Williams 1971:127)

Koinei, *koinā*, or *koirā* may also be used in the place of *koia* (henceforth all represented by *koia*), with no great difference in meaning:

1259 Koinei i whero ai te māhunga o Pākura.
this.is TAM red ai the head of Pākura

This is why the pakura's head was all red. (Mead 1996a:57)

1260 Koinā anō mātau i raru ai i a Te Hiakai.
that.is EMPH we TAM trouble ai by PER Te Hiakai

No wonder Te Hiakai was able to trouble us. (Mead 1999a:45)

1261 Koirā au i huna ai i kōnei. (Huia 1998:56)
that.is I TAM hide ai at here

That's why I hid here.

All verb types are attested with this construction. The subject, if present, is usually located after the VP, particularly if it is heavy. Light subjects may also be located before the VP, which is the much preferred position for pronouns.

Koia is an anaphor. This was noted by Bauer, who stated that *koia* was used 'to recapitulate a reason stated in another clause, and thus to indicate the causal relationship between the two clauses' (1997:602-3). In 1257 *koia* refers to the reason given in the preceding clause, and in independent sentences it refers to a reason in a previous sentence.

The analysis of this structure is problematic. Bauer suggested that *ai* marks the fronting of the reason NP *koia* (1997:603). *Koia* is only found in the clause initial position, so *ai* would be expected to mark obligatory fronting. The problem lies with *koia* itself.

Moorfield observed that *koia* often combines with *nei*, *nā*, and *rā* to become *koinei*, *koinā*, and *koirā* respectively, and argued that *koia nei* is 'often used as an alternative way of saying *ko tēnei*' (1989:12). This suggests that *koia* could be the fronted version of an *i/nō tēnei* reason NP. However I have been unable to locate a single textual example where reason is expressed in this way. Consultants state that reason is not an appropriate use for a demonstrative. The following, constructed from the reason clause of 1259, was judged ungrammatical with *tēnei* but acceptable with *tēnei take* 'that reason' (although the fronted version was preferred):

1261a. *I whero te māhunga o Pākura i/nō/nā tēnei.
TAM red the head of Pākura for this

Pākura's head is red for this reason.

1261b. I whero te māhunga o Pākura nō/i (runga i) tēnei take.
TAM red the head of Pākura for (upon for) this reason

Williams defined *koia* as an adverb, and when used for reason he explicated it as *ko ia* 'it is that' (1971:127, (iv)). This suggests that *ko* is marking *ia* 'that, the said' (1971:74, (ii)). The only example Williams provides for this particular use of *ia* is as a determiner (*ia wahine* 'that woman'), and it seems improbable that this particle would be *ko* marked. The pronoun *ia* can be *ko* marked, although *ia* is generally restricted to human or personified referents. Ngata included 'it' as a possible meaning for *ia* but his example is also a human referent (1993:239):

1262 Ko wai ia e pātōtō ana i taku tatau?
FOC who he TAM knock TAM ACC my door

Who is it knocking on my door?

Inanimate referents for *ia* were rejected (or at least strongly frowned upon) by my consultants:

1263 ? Kei.te hiakai te kurī; me whāngai koe i a ia.
TAM hungry the dog TAM feed you ACC PER it

The dog is hungry; you should feed it.

If *ia* is marked by *ko* to produce *koia*, then it could be related to a variant of *ia* found in other Eastern Polynesian languages - in Cook Island Māori *ia* can mean 'so, then, in that case, for that reason' (Buse and Taringa 1996:116). More research is required to determine the nature of *koia* but in this work it is viewed as a single term, and as the specific counterpart of the unspecific phrase *he aha*.

The most common use of *koia* is as the predicate of an equative non-verbal sentence, where it is translated as 'that is' or 'here is':

1264 Koia nei te mauri o te kahawai.
that.is EMPH the life.force of the kahawai

That's the life force of the kahawai. (Biggs 1997:43)

This would be analysed as:

1265 [Koia nei]$_{Pred}$ [te mauri o te kahawai]$_{Su}$

It could be that *koia* in reason utterances is a lexical item that fills the predicate position of a non-verbal sentence (in keeping with the majority of its occurrences). The remainder of the sentence, a headless relative clause, is its subject, with optional raising of its subject to be the surface subject of the predicate:

1266 [Koia]$_{Pred}$ [i karanga ai ia]$_{Su}$

If the proposed structure is correct then *ai* would be expected to participate in the headless relative clause. Certainly the difference in meaning between 1265 and 1266 is determined by the inclusion of *ai*. Consultants confirm that *ai* indicates to the listener that the reference is to reason. Thus *ai* marks the relative verb and refers to reason which is resumed by *koia*. If this hypothesis is correct then *ai* should be obligatory.

There are 100 sentences in my database that contain *koia*-initiated reason clauses. These all come from narratives, 65 from classical and the remainder from modern. There are examples from a wide range of iwi in both time frames. In all cases the *koia* clause follows its causal reference, showing that *koia* can only refer backwards.

Of the 100 sentences, 90 have *ai* after the verb in the *koia*-marked clause. It is notable that examples without *ai* are rare, particularly in the classical period. Of the ten sentences I have found without *ai*, most have a locative particle or *ana* following the verb, even when the TAM is *ka*:

1267 .. koia au ka mea nei .. (Grey 1928:9)
that.is I TAM say LOC

.. that's why I said ..

There are four examples without either *ai*, a locative particle, or *ana*. Two are from the same modern text where the TAM *ka* is used:

1268 Koia ka puta te ingoa mō tērā taha moana ko Mangonui.
that.is TAM emerge the name for that side sea EQ Mangonui

Hence the name Mangonui was given to that harbour. (Clother 2002:84)

The same author also uses *ai* and there is nothing in the narrative to indicate why the different structures are used:

1269 Koia anō hoki a Te Houtaewa te tipua i raru ai.
that.is EMPH EMPH PER Te Houtaewa the giant TAM defeated ai

That's how the giant Te Houtaewa was defeated. (Clother 2002:47)

The remaining two non-*ai* examples are from classical texts. The following has the verb marked by *kua* which is incompatible with *ai*:

1270 .. koia kua tae wawe ki Whakatāne.
that.is TAM arrive soon to Whakatāne

.. that's why he got to Whakatāne quickly. (Orbell 1992:44)

The final example is by Te Rangikāheke, who usually uses *ai*. In this extract *koia* refers to an indirect reason, and this may have influenced the choice of TAM:

1271 Nā Ngātoro-i-rangi anake i karanga atu ki Hawaiki, ka hari-a mai
belong Ngātoro-i-rangi alone TAM call DIR to Hawaiki TAM carry-PASS DIR
e ōna tuāhine. Koia ka toro haere i tēnei motu.
by his(pl) sisters that.is TAM extend move ACC this island

Ngātoro-i-rangi alone called for it to be brought from Hawaiki and his sisters fetched it. So it extends throughout this island. (Biggs 1997:113).

Given the rarity of the non-*ai* forms it can be concluded that *ai* (or one of the alternatives) is strongly preferred (if not obligatory).

4.2.3.6 Reason as relative clauses

Williams made the observation that why questions could be 'frequently rendered by paraphrase, by the use of the expression *he aha te take*', 'what is the reason' (1940:53):

1272 He aha te take i haere ai ia?
CLS what the reason TAM move ai he

Why did he go? (1940:53)

This is a cleft sentence with the action expressed as a relative clause, which is always an option when expressing reason in Māori. There are actually two relative clause constructions available. The first is a normal relative clause on *he aha te take* as above, and the second is a possessive relative:

1273 Tō.rāua take i haere mai ai, he kimi i tō.rāua tuahine, i a Kanioro.
their reason TAM move DIR ai a search ACC their sister ACC PER Kanioro

The reason they came was to search for their sister, Kanioro. (Biggs 1997:185)

An analysis of narratives shows that around 25% of the sentences that ask for or express a reason have that reason presented as a relative clause. In classical texts the possessive was the more common form used whereas in modern texts *he aha te take* is preferred.

The fronted adverbial and the relativised structure appear to differ subtly in their communicative force. My consultant felt that the relative clause structure gives more emphasis to the reason and that the information in the relative clause was somewhat less important. This accords with the view that relative clauses background the information they contain (Foley and Van Valin 1985:359). In the following, the fronted reason adverbial is closely associated with the verb and would be a question asked when someone, say, returned unexpectedly:

1274 He aha koe i hoki mai ai?
CLS what you TAM return DIR ai

Why did you return?

In contrast the following emphasises the storm as the reason for being late, and the information in the relative clause is discourse old and has been backgrounded:

1275 He āwhā te take i tōmuri ai koe.
CLS storm the reason TAM late ai you

A storm was the reason why you were late.

The two following extracts from the same text illustrate this difference. In the first, the scaring of the speaker is discourse new and integral to the utterance:

1276 Ka pahū mai taua kōtiro urukehu nō te kāinga nei, ‘Ko wai koutou? He aha koutou i whakamataku ai i a māua? E tika ana me karanga atu ahau ki ā māua toa ki te hauhau i a koutou!’

That fair-haired girl shouted out from the village, ‘Who are you? Why are you frightening us? It is right that I should call our warriors to attack you!’ (Reedy 2001:28)

In the second extract the building of the urupā on the particular site is already known to the listener and is backgrounded in the relative clause. What is of interest to the speaker is the reason why this particular site has been chosen:

1277 ‘Kei tērā moka o te one kei runga i tētahi puke iti. Ko te koroua ko Ngarire-o-te-moana te tūpāpaku tuatahi o roto. Ko tōna wawata tērā kia nehua te katoa o te whānau ki roto. He aha te take i whakatūngia e ia he urupā ki reira?
Kāre tētahi i te mōhio engari e ai ki ngā kōrero i horo taua wāhi i tētahi wā.’

At that end of the beach on a small hill. Ngarire-o-te-moana the elder was the first to be buried there. It was his wish that all of his family would be buried there. What was the cause he established an urupā there?
It isn’t known but according to the stories that place was engulfed at one time.’ (Reedy 2001:147)

These extracts show that in the fronted construction the adverbial is closely associated with the verb whereas in the relative clause construction the actual reason is the most important element of the utterance and the information in the relative clause has been backgrounded.

Fronted time phrases in Māori can also be realised as a relativised cleft structure and the same conclusions were reached regarding these.

4.2.3.7 Reason clauses

4.2.3.7.1 *nā*/*nō*/*i*/*tā te mea* clauses

Reason clauses can be introduced by *i/tā/nā/nō te mea* ‘because’ which ‘function as subordinating conjunctions’ (Bauer 1997:600). Bauer observed that there does not appear to be any difference in meaning between the prepositions (1997:600). My consultants concur. Authors in my database generally have a personal preference irrespective of dialect. Each of these conjunctions does have its own peculiar distribution. The following description is based on an analysis of the occurrence of these clauses in my corpus of narratives.

I te mea

I te mea reason clauses are the most common form used in classical texts. They may be located either before the main clause, as in 1278, or after, as in 1279:

1278 I.te.mea anō e noho ana ia i reira, ka tupu ake tētahi raruraru.
because EMPH TAM stay TAM he at there TAM grow DIR a trouble

Because he was staying there, trouble brewed. (Parata 1892:94)

1279 Ka hoki te māia nei ki tōna kāinga, ki Waiaua, i.te.mea kua hari tōna ngākau.
TAM return the brave LOC to his home to Waiaua because TAM glad his heart

This champion returned to his home at Waiaua because his heart rejoiced. (Orbell 1992:119)

The same pattern is found in modern texts. Overall, around 40% of these adverbials are fronted, but there are no examples where this fronting is marked by the inclusion of *ai* after the main verb. A range of TAMs are possible in the main clause, with *ka* being the most common.

Tā te mea

Tā te mea reason clauses are also quite common in classical texts, but I have been unable to locate an example in my corpus of modern writings. All have the adverbial located after the main clause:

1280 Kātahi au, a Ngāti Whātua, ka rapu utu mō Taureka tā.te.mea he kōhuru.
VOC I PER Ngāti Whātua TAM seek revenge for Taureka because a murder

So I, Ngāti Whātua, sought revenge for Taureka because it was murder. (Moorfield 1992:106)

Nā te mea

Nā te mea adverbials occur freely in both classical and modern texts. This is the commonest reason clausal expression used by contemporary writers. These clauses are much more likely to be fronted in classical texts (80% of cases) than in modern ones (20%). A range of TAMs are possible for the main verb. *Ka* is the most common, particularly for modern authors:

1281 Nā.te.mea ka tawhiti noa atu**,** ka kī ētahi, 'Ē, ka hoki tātau!'
because TAM distant freely DIR TAM say some VOC TAM return we

Because of the great distance, some said, 'Eh, we should go back!' (Reedy 1993:41)

There are a few cases where the fronting is marked by *ai*:

1282 Nā.te.mea kua pōuri mai te pō i puta ai a Whare-tīpeti.
because TAM dark DIR the night TAM emerge ai PER Whare-tīpeti

Because it was dark Whare-tīpeti escaped. (Jones and Biggs 1995:285).

1283 Nā.te.mea he mahi nā te Kawanatanga, i kore ai te iwi o
because CLS work belong the Government TAM NEG ai the people of
Waikato e whakaae .. (Karetu 1991:98)
Waikato TAM agree

Because it was Government work, the Tainui people did not agree ..

There are too few examples to hazard suggestions as to why *ai* is used to mark the fronting for these reason clauses and not for others.

Nō te mea

Nō te mea adverbials are equally as common as their *nā* counterparts in classical texts, but less common in modern ones. None of the classical examples have the adverbial fronted, although there are a small number in the modern texts that do so. None of the modern fronted examples are marked by *ai*:

1284 Nō.te.mea he manuhiri tūārangi rātou, ka mau-ria rātou ki tētahi tonu
because CLS visitor from.afar they TAM take-PASS they to a EMPH
o ngā whare whakairo moe ai. (Karetu 1991:131)
of the(pl) house carve sleep ai

Because they were visitors from afar, they were taken to a carved house to sleep.

4.2.3.7.2 *He mea nō* .. clauses

Another reason adverbial is a non-verbal clause introduced by *he*. An example shows the usual construction:

1285 **He pai nō tāku noho** i patu mai ai ia.
CLS good belong my stay TAM beat DIR ai he

Someone wants to attack because of my excellent situation. (Mead and Grove 2001:105)

The highlighted adverbial begins with an *he* phrase and is followed by an *n*-possessive which always has the *o* form and is the subject of the adverbial. If the subject of both clauses is the same then it may not appear in the main clause:

1286 He wehi nōna i oma atu ai.
CLS fear of.his TAM run DIR ai

It was probably fear that caused him to run off. (Stowell 1911:8)

However subject deletion is not obligatory:

1287 He tere nōu e wini ai koe.
CLS swift of.you TAM win ai you

You are swift therefore you will win. (Foster 1987:163)

The main verb is marked by *i .. ai* for past tense and *e .. ai* for future. Future examples are more suggestive of means than reason, showing that these two adverbial types are not always clearly distinguishable.

There are 14 sentences in my database with *he* fronted clauses similar to those above, and all have *ai* following the main verb. The use of *ai* in these sentences appears to be obligatory. They are found in both classical and modern narratives, with examples from authors of the East Coast and Tainui iwi. The proposed surface structure for these sentences is as follows:

[[He wehi]$_{\text{Pred}}$ [nōna]$_{\text{Sub}}$] $_{\text{Adverbial}}$ [[i oma atu ai]$_{\text{Pred}}$ [(ia)]$_{\text{Sub}}$]$_{\text{Main Clause}}$

4.2.3.8 *ka* or *ai* marking?

Not all fronted reason adverbials are marked by *ai*. A summary of the observations made follows:

- where *ai* is possible it may be replaced by *ana* or a locative particle
- *ai* only co-occurs with the TAMs *i* and *e*
- where *ai* does not mark the verb the commonest TAM is *ka*
- *ai* is possible for *nā* fronted reason phrases and nominalisations, and obligatory for *he* fronted reason adverbials, both phrasal and clausal
- fronted reason clauses introduced by *nō/i/tā* (*te mea*) do not require *ai* after the main verb although a few cases with *nā te mea* have been found
- *koia*-initiated reason clauses appear to require *ai*

The first two points have already been noted elsewhere. It appears that the major choice a speaker needs to make is to mark the main verb with *ai* (henceforth the *ai* form) or to use a range of TAMs, notably *ka*, and exclude *ai* (henceforth the *ka* form).

As described earlier, Harlow argued that the *ai* form brings the adverbial into focus whereas the *ka* form is used when the fronted adverbial is the topic of the utterance (2001:200). In many instances speakers appear to construct their utterances in accord with this view. In particular wh-type questions are pragmatically structured to focus on the wh-segment. All *he aha* sentences in my database utterances require *ai*, and any constructed with *ka* were not favoured by my consultants:

1288 He aha koe i hoki mai ai (?ka hoki mai)?
CLS what you TAM return DIR ai TAM return DIR

Why did you come back?

Consultants also strongly preferred *ai* in questions initiated by *nā te aha*:

1289 Nā te aha koe i uru ai (?ka uru) ki tēnei karaehe?
belong the what you TAM enter ai TAM enter to this class

Why did you join this class?

It appears that for interrogatives the *ai* form is strongly preferred. However, in declarative sentences, consultants gave unpredictable responses regarding any differences they perceived between sentences of the *ai* and *ka* forms, and some felt that they were essentially interchangeable.

Analysis of sentences in context was attempted to ascertain whether *ai* marks focus in a systematic way. Unfortunately, this analysis proved problematic, as most authors in my database use only one form. A few authors use both although it should be noted that mostly these are contemporary speakers and the distinctions they make may not be those made in the classical time frame.

Hoani Waititi is one author who appears to use the *ai* form for focus and the *ka* form for topic. In the following extract, the reason phrase is new information, focussed, and marked by *ai*, whereas the remainder of the sentence is already known to the reader:

1290 I te toru karaka i te ata, ka hoki a Tamahae rāua ko Rewi ki te tēneti. Nā te makariri **i** hoki **ai**.

At three o'clock in the morning, Tamahae and Rewi returned to their tent. They returned because of the cold. (1991:143)

In the next extract by the same author the reason why the factory no longer exists is the topic of the second sentence, the event which follows is new, and the main verb is marked by *ka*:

1291 I ngā rā o mua, he wheketere i runga i tēnei moutere. Nā te ngāwhā, **ka** waikura ngā whare me ngā mīhini, ka katia te wheketere nei.

In the past there was a factory on this island. Because of the sulphur the buildings and machines rusted and this factory was shut down. (1985:105)

The following extract, also by Waititi, shows the *ka* form used when a contrast is being made, which makes the adverbial topical:

1292 I ngā rā o mua, he tino tokomaha ngā tāngata haere mai ai ki te mahi hei. Nā te putanga mai o ngā mīhini pēre hei, **ka** māmā te mahi.

In the past, many people would come haymaking. Because of the emergence of hay bailing machines, the job is easy. (1985:48)

Mead also uses both forms. In the following extract the action described by the *ka*-marked main verb is new and the reason adverb is topical:

1293 Engari ko tāna kata he rite ki te whatitiri, he whakamataku tangata. Nā te tino nui o tōna reo **ka** tumeke a Rua.

But his laugh sounded like thunder and it scared the people. Because his voice sounded so loud, Rua started suddenly. (Mead 1996a:45)

Mead uses the *ai* form in the next extract which has the reason adverbial focussed and followed by an action previously referred to:

1294 Kua puta mai koe i te kiri taniwha. Nā ngā mahi a tā mātau tamāhine, a Pōhutukawa, **i** puta mai **ai** koe i ō raruraru.

You have emerged from the skin of a monster. It was because of our daughter, Pōhutukawa, that you escaped your curse. (Mead 1999a:129)

It appears that the *ai* form is required when the adverbial is an interrogative, and for *he-* and *koia-*initiated reason adverbials. At least for some speakers the *ka* form is preferred when the sentence adverbial is the topic of the utterance whereas the *ai* form is preferred when the adverbial is in focus.

4.2.4 Time

Time adverbials are often fronted for emphasis. *Ai* is usually only found in sentences that have fronted future or past tense adverbials.

4.2.4.1 Fronted future time adverbials

4.2.4.1.1 Phrases

Fronted future time phrases may be initiated with either *ā, hei,* or *mō*—words such as *āpōpō* are considered as phrases which have had the preposition *ā* incorporated with the word (Bauer 1997:243). The following are typical examples of sentences which contain *ai*, initiated by *ā*, *hei*, and *mō* respectively:

1295 Ā te toru o Ākuhata au hoki atu ai. (Waititi 1991:118)
at the three of August I return DIR ai

I'll be back on the third of August.

1296 Hei a Pipiri tīmata ai te tau hou.
at PER June start ai the year new

The New Year will begin in June. (Harlow 2001:82)

1297 .. mō āpōpō tāua riri ai. (Grey 1928:79)
for tomorrow we fight ai

.. tomorrow we will fight.

The pattern is predictable. No TAM marks the *ai* modified verb. The subject of the sentence (if present) may be located either before or after the VP, with a preference to locate it before if it is light. A *ko* subject can not precede the adverbial. In rare instances an adverbial will precede a *ko* topic, but these do not have *ai* marking:

1298 Ā muri mai, ko ngā pirau o te tāpoa o Uenuku i kai-nga
at after DIR TOP the(pl) waste of the abscess of Uenuku TAM eat-PASS
e te kurī ..
by the dog

After that, the waste from the abscess of Uenuku was eaten by the dog .. (Grey 1928:54)

There is no restriction on verb type in these sentences. The following examples contain an active transitive, a passive, and a neuter verb respectively:

1299 Ākuanei koe whakarere ai i a au.
soon you leave ai ACC PER me

Soon you will leave me. (Orbell 1992:73)

1300 Āpōpō huaki-na ai ngā toe-nga o ngā rua kai.
tomorrow open-PASS ai the(pl) remain-NOM of the(pl) pit food

Tomorrow the rest of the food stores will be opened. (Raukatauri 1896:107)

1301 Ā hea a Pita mutu ai i te whare wānanga?
at when PER Pita finished ai at the house learning

When will Pita finish at the university? (Moorfield 1988:46)

Sentences with the same prepositions also occur with *ka* marking the verb. These do not contain *ai*. The same pattern for the position of the subject is found as that with *ai* sentences:

1302 Ākuanei au ka mahue i a koe.
soon I TAM forsaken by PER you

Soon you will abandon me. (Biggs 1997:49)

1303 Hei te pō ka tae mai.
at the night TAM arrive DIR

He will come tonight. (Orbell 1992:74)

1304 Mō āpōpō ka hoki tātou.
for tomorrow TAM return we

Let's return tomorrow. (Biggs 1997:133)

My corpus consists of 80 examples of sentences with fronted future time phrases, 59 of which contain *ai*, and the remainder have been included for comparison. In my corpus 70% of the phrases are introduced by *ā,* 20% by *hei*, and the remaining 10% by *mō*.

Ā appears to be used by speakers from all dialects, whether the verb is marked by either *ka* or *ai*.

Hei (or its equivalent *hai*) is also used by speakers from a reasonably wide range of iwi. I have examples from Ngāpuhi, Taranaki, Ngāti Awa, Waikato, and Ngāti Porou. Some speakers use *hei* instead of *ā,* whereas others appear to only use *hei* before words starting in *ā,* such as *āpōpō*, although there is too little data to be certain on detail. Consultants generally do not think that *hei* imparts any extra meaning to its phrase other than indicating future.

Mō appears to be more restricted in its usage than the other prepositions, at least in the narratives available to me. Bauer claimed that *mō* was not commonly used in temporal expressions and that its contemporary use in expressing duration may be due to the influence of English (1997:187). *Mō* is indeed quite rare as a future preposition, particularly in the classical time frame. I have located only seven time phrases introduced by *mō*, five of which are modern. None of these examples are durational, and all except 1304 contain *ai*. *Mō* appears to add the meaning of future intent. A classical example which demonstrates this is from a narrative by Te Whiwhi of Ngāti Toa, who is relating the story of Ngatoro-i-rangi. Ngatoro has been surrounded by many hostile warriors, including his brother-in-law, Manaia, and he suggests that they wait until the next day to fight—a strategy that is crucial to his survival, as it gives him time to prepare:

1305 Kātahi tērā ka karanga atu, 'Tōku taokete, tau mārire ake i konā; kua ahiahi, e kore e taka te uru o ā tāua rākau, mō āpōpō tāua riri ai.' (Grey 1928:79)

Then he called out, 'My brother-in-law, anchor peacefully there; it will soon be dark and we won't be able to parry the point of our weapons, but tomorrow we will fight'.

Te Whiwhi also uses *ā*, but for fronted time phrases where there is no clear intent:

1306 Ka kī atu a Rata, ‘Āwhea ara ai te marama?’ (Grey 1928:46)
TAM say DIR PER Rata when rise ai the moon

Then Rata asked, ‘When will there be a new moon?’

In the examples above the VP was marked by either *ka* or *ai*, but there are a small number of instances where they co-occur. Bauer proposed that *ai* was included with *ka* ‘if the speaker deems it necessary’ (1997:378), hypothesising that *ai* was used ‘because the speaker judges that the distance between the constituents could lead to misinterpretation of the relationship between them’ (1997:377). In her example, which is reproduced here, the underlined relative clause comes between the fronted adverbial and the main verb:

1307 .. hei te wā e rākaunui ai te marama, **ka** hoe atu **ai** tātou ki Āwhitu ki te whakamana i tana kupu.

.. at the time when the moon is full, we will paddle to Āwhitu according to her invitation. (1997:376)

Counter examples with no constituents between the adverbial and the verb are not difficult to find:

1308 Hai te ata, ka haere ai tātau ki te moana.
at the morning TAM move ai we to the sea

We’ll go out to sea in the morning. (Reedy 1993:52)

It appears that the distance hypothesis is not well motivated. I argue that the combination of *ka* with *ai* creates a logical dependency between the phrases. In 1308 waiting for the morning is crucial, given the context of the utterance. A monster, Houmea, has the form of a canoe floating abandoned in the river. When people notice the empty canoe they approach and she drowns them. The people of Te Kaha are suspicious and so they trick her into landing by emphasising that they intend to go out on her the next day:

1309 Pēnā tonu tāna mahi, tae noa mai ki Te Kaha-nui-a-Tiki. Ka ū anō ki konā takoto ai, ka whakatika ngā tāngata o Te Kaha ki te tō ki uta, ka taringa turi a Houmea. Ka karanga te iwi ra, ‘Ē, tōia tō tātou waka ki uta. Hai te ata, **ka** haere **ai** tātau ki te moana.’
Kātahi anō a Houmea ka māmā ki te tō.

She kept on acting like this, all the way to Te Kaha-nui-a-Tiki. She landed again and lay there, and the people of Te Kaha rose up to haul her to shore; but Houmea wouldn’t respond. Then the people called out, ‘Oh, haul our canoe to the shore! We’ll go out to sea in the morning’
Then at last Houmea became light to haul. (Reedy 1993:52)

The *ka .. ai* construction will be discussed in Section 5.2.

4.2.4.1.2 Nominalisations

Fronted future time nominalisations are rare and there is too little data to draw conclusions. In my corpus the verb is usually marked by *ka*:

1310 Ā te mutu-nga o āna akoranga ka hoki mai a ia. (Reedy 2001:103)
at the end-NOM of his(pl) learning TAM return DIR PER he

At the end of his education he will return.

For negatives the verb is marked by *e*:

1311 Hei te whai a te ngārara, e kore e mau.
at the pursue of the monster TAM NEG TAM caught

If the monster pursued him he wouldn't be caught. (Biggs 1997:51)

Bauer has an example marked by *ka .. ai*:

1312 Hei tōu tae-nga mai, ka kai ai tātou.
at your arrive-NOM DIR TAM eat ai we

When you get here, [then] we'll have a meal. (Bauer 1997:379)

I argue that *ka .. ai* marking indicates a special kind of dependence as described above.

4.2.4.1.3 Clauses

Fronted future time clauses are generally introduced by *kia*. These clauses are always fronted. There are 40 sentences of this type in my database, with an equal number from narratives from the classical and modern time frames. There appears to be two ways of marking the verb in the main clause. One construction involves the use of the TAM *ka*:

1313 Ka kī atu te kōtiro rā, 'Kia pō **ka** hoki mai'.
TAM say DIR the girl LOC TAM night TAM return DIR

That girl said, 'When it is dark, he will return'. (Biggs 1997:69)

The second construction, which appears to be more common in classical texts, has the main verb marked by both *ka* and *ai*:

1314 Ka kī atu a Rata, ' Kia ahiahi **ka** puta ake **ai**?' (Grey 1928:46)
TAM say DIR PER Rata TAM evening TAM emerge DIR ai

Rata asked, 'When it is evening, then he emerges?'

Again I argue that these constructions do not have the same meaning. *Ka .. ai* marking indicates dependence on the fronted time adverbial, adding an 'only then' sense to the utterance. In 1313 the husband will simply return when it is dark. However in 1314 Rata needs to be sure that the monster he intends to kill will only emerge in the evening, as his strategy depends upon it. In the following, an 'only then' meaning is obvious—celebration can hardly take place until vengeance is served:

1315 Kia ea rā te mate ngarengare, ka puta ai ki mua whakapī ai.
TAM avenged LOC the defeat overbearing TAM emerge ai to front contort ai

When defeat of the troublesome one is avenged, then one can dance in jubilation. (Mead and Grove 2001:209)

Ai in these examples is not a resumptive pro-form, but is acting as a general discourse anaphor. This specific structure will be described in Section 5.2.4.

There are other constructions of future time clause adverbials, none of which appear to mark their fronting by *ai.* 1316 uses *ka .. ana* in the time clause with the meaning 'as soon as':

1316 Ka puta mai ana, kia tere te oma.
TAM emerge DIR TAM TAM fast the run

As soon as he appears, run as fast as you can. (Mead 1999a:88)

Ina 'if and when' is used for future time clauses that have a degree of uncertainly about them:

1317 Ina kite koe i a ia, me mihi.
when see you ACC PER her TAM greet

When you see her say hullo for me. (Harlow 2001:240)

4.2.4.1.4 The *ka* or *ai* form?

As with the reason adverbials, all wh-type questions appear to prefer *ai*. All textual examples introduced by '*āhea*' 'when' are of the *ai* form. Some consultants readily accepted sentences with fronted *āhea/āwhea* phrases and *ka* marking the main verb, but most preferred the *ai* form. The following was judged grammatical by a Ngāti Porou consultant:

1318 Āhea tātou ka kite anō i tōna rite-nga?
when we TAM see again ACC his like-NOM

When will we see his likeness again? (Ngata 1993:530)

In non-interrogatives the topic/focus distinction often appears to hold. Consider the following sentence from Mohi Ruatapu:

1319 Āpōpō koe tae ai ki te kāinga.
tomorrow you arrive ai to the home

Soon you will reach your home. (Reedy 1993:65)

In its context *āpōpō* is in focus. When presented with this sentence on its own, two consultants interpreted it to mean 'It will be tomorrow that you will arrive', consistent with focus on the adverbial. In contrast the sentence in its *ka* form was said to be 'just a statement':

1320 Āpōpō ka tae koe ki te kāinga.
tomorrow TAM arrive you to the home

You will reach home tomorrow.

It must be said though that not all consultants felt that there was any discernable difference between the two constructions.

Textual analysis shows that classical authors appear to have used *ai* in accord with Harlow's hypothesis. The following extracts are by Wiremu Hoeta of Waikato. In the first the highlighted time adverbial is topicalised, the rest of the sentence being new action:

1321 He kōrero tēnei mō Hine-kōrangi, he wahine i puhia e tōna matua, kāore e tuku kia moe i te tāne. Ka hiahiatia e te tāne kia moea, kāore e pai te iwi me ngā mātua o taua wahine nei. Kātahi ka hangā he whare whakairo mō taua wahine nei. Ka oti kāore te tangata e tata atu i te wehi ka mate.
Ākuanei ka haere mai tētahi tangata nō Te Reinga, he wairua, ko Tū-horopunga te ingoa.

This is a story about Hine-kōrangi, a woman whose father made her a puhi and wouldn't allow her to marry. Men wanted to marry her, but her tribe and her parents wouldn't permit it. A carved house was built for her, and when it was finished no man dared approach it for fear of death.
Presently, there came a man from Te Reinga, a spirit, and his name was Tū-horopunga. (Orbell 1992:73)

In the second extract the time adverbial is focussed, and the *ai* form is used:

1322 Ā, ka tangi te pītoitoi, ka haere te tangata rā. Nā, ka kī atu te wahine nei, 'E noho tāua kia rokohanga mai tāua e taku matua, e taku iwi, kia tūturu tā tāua moe. **Ākuanei** koe whakarere ai i a au.'

Then when the robin sang the man went away. The woman said, 'Let's stay here to be found by my father and my people, so that our sleeping together can be made permanent. Soon you will leave me.' (Orbell 1992:73)

Modern authors do not always appear to use the *ai* and *ka* forms in this manner, instead having a preference which they use exclusively. However, a general observation is that *ai* marking does appear to emphasise the importance of the time in the utterance, as demonstrated by the following classical example:

1323 Ākuanei tāua mate ai i te tāua nei kei.te pātīhau tonu.
soon we kill ai by the old.woman DIR TAM mutter still

Any minute now we will be killed by this old woman who keeps rumbling away. (Tremewan 2002:167)

4.2.4.2 Fronted past time adverbials

4.2.4.2.1 Phrases

Fronted past time phrases may be initiated by either *nō* or *i*—these two prepositions have been historically incorporated into certain words such as *nōnanahi* and *inanahi* 'yesterday'. The following are typical examples of sentences which contain *ai*, initiated by *nō* and *i* respectively:

1324 Nōnahea i waea mai ai? (Karetu 1991:19)
when TAM phone DIR ai

When did she call here?

1325 Inā tata nei, i mate atu ai a Wii Huihui.
just near LOC TAM dead DIR ai PER Wii Huihui

Just recently, Wii Huihui died. (Biggs 1997:155)

All sentences with the fronting marked by *ai* have the TAM *i* marking the verb.

When *ai* does not mark the verb, *ka* is the most common alternative (and the only TAM found in my corpus when the preposition is *nō*):

1326 Nō tētahi rā ka purupuru-a e Te Hei-raura ngā puta o tō.rāua whare;
at a day TAM block-PASS by Te Hei-raura the(pl) hole of their house

One day, Te Hei-raura blocked up all the chinks in their house; (Biggs 1997:65)

1327 I te ata anō, ka haere anō a Tangaroa ki.te hī.ika.
at the morning EMPH TAM move again PER Tangaroa TAM fish

The very next morning Tangaroa went fishing. (Reedy 1993:50)

I is the more usual preposition when the VP does not contain *ai.* With this preposition a number of TAMs are possible for the VP when *ai* is absent. Examples follow, with no TAM, *kua,* and *i* respectively:

1328 I waenganui pō, tango tonu atu ia ki te maro o tōna kōkā, huna-ia ana.
at in.between night hold EMPH DIR he ACC the skirt of his mother hide-PASS TAM

Then in the middle of the night he took his mother's skirt and hid it. (Reedy 1993:20)

1329 I te pō kua tārore te tāne i a ia i roto i tōna rūma. (Huia 1997:19)
at the night TAM ensnare the man ACC PER her at inside at her room

At night the man locked her in her room.

1330 I taua pō, i hoki māua.ko Tonga ki tētehi whare moe ai. (Huia 1997:10)
at that night TAM return I.and Tonga to a house sleep ai

That night, Tonga and I went back to a house to sleep.

My corpus of *ai* sentences has 46 examples with fronted past time phrases, 35 with *nō* and 11 with *i.* There are also 34 non-*ai* examples included for comparison.

The position of the subject in these constructions is worthy of comment. For those without *ai*, the subject is always located after the VP in my corpus. For sentences with *ai*, the subject can be located either before or after the VP regardless of its weight. A *ko* subject can not be located before the adverbial. In rare cases a *ko* subject can be located between the adverbial and the VP, but there are no examples with *ai*:

1331 I tēnei wā, ko Tāwhaki i whaikupu ake ..
at this time TOP Tāwhaki TAM speak DIR

Now it was Tāwhaki who spoke .. (Mead 1996a:52)

There does not appear to be any dialectal preference for a particular preposition. All iwi use both prepositions for fronted past time phrases, whether they are marked by *ai* or not. Although most authors in my database appear to use one preposition exclusively, some authors use both, and it is interesting to see what factors affect their choices. Consider the two sentences by Mohi Ruatapu:

1332 Nō te ahiahi ka kawe-a ki te ihi o te whare iri ai.
at the evening TAM take-PASS to the bargeboard of the house hang ai

In the evening I was taken to hang on the bargeboard of the house. (Reedy 1993:27)

1333 I te ata, ka kawe-a ki te rua o tōku tipuna, o Muri-ranga-whenua.
at the morning TAM take-PASS to the grave of my ancestor of Muri-ranga-whenua

In the morning I was taken to the grave of my ancestor, Muri-ranga-whenua. (Reedy 1993:27)

There is little in the narrative to suggest reasons for a change in preposition. Indeed, they follow each other directly in the text and have very similar structures. Perhaps the different preposition gives a more satisfying phonology and this accounts for the variation.

4.2.4.2.2 The *ka* or *ai* form?

In at least some cases it appears that the *ai* form is used for focus, and the absence of *ai* indicates topic. All textual examples of past time interrogatives which have the adverbial fronted are of the *ai* form. My older consultants consistently rejected interrogatives without *ai*:

1334 *Nōnahea/Inahea koe ka/i tae mai?
when you TAM arrive DIR

When did you arrive?

For declarative sentences the situation is less clear. Consultants preferred the *ai* form for formal answers to wh-questions but most felt that there was little difference in general discourse. No pattern could be determined when asking for sentences with past time expressions used in various ways.

Harlow suggested that topic is typical 'if one were recounting what one did … on several days of the week' (2001:200), and this would be indicated by the use of *ka*. The following extract from a text by Mohi Ruatapu is patterned in this manner, as Maui recounts when certain events occurred:

1335 Ka mea atu ki a ia, 'Nāu anō au, he tahe, he toto nō tō tikitiki. **Nō te ahiahi** ka kawea ki te ihi o te whare iri ai. **I te ata**, ka kawea ki te rua o tōku tipuna, o Murirangawhenua.'

He told her, 'Yes, I am yours, I'm an abortion, blood from your girdle. In the evening I was taken to hang on the bargeboard of the house. In the morning I was taken to the grave of my ancestor, Murirangawhenua.' (Reedy 1993:27)

Not all textual examples can be accounted for this way. In fact, most authors in my database prefer the *ka* form for sentences with fronted past time phrases, restricting *ai* to interrogatives. While some speakers make the distinction between focus and topic by using *ai* in this way, counterexamples are not that hard to find.

4.2.4.2.3 Nominalisations

Fronted past time nominalisations are much more common than their future time counterparts and are often fronted. There are 29 fronted examples in my database, 14 introduced by *nō* and five by *i*. The remainder have no preposition marking the nominalisation. Five sentences have *ai* in the VP. This contrasts with the observation by Bauer that 'none use *ai*' (1997:378). The following example contains *ai*:

1336 Te tae-nga ki te rangi, i whakahorohoro-a ai ngā manu.
the arrive-NOM to the sky TAM let.out-PASS ai the(pl) kite

When they reached the sky, the kites' lines were let out. (Reedy 1993:60)

Biggs argued that *nō te* combined with *ai* added the sense of 'because' to the utterance (1973:106). This raises the possibility that all fronted *nō, i* or null-headed fronted nominalisations marked by *ai* are actually reason adverbials. Biggs provided the following example:

1337 Nō te kata-nga a tīwaiwaka i a Māui i kūti-a ai
belong the laugh-NOM of fantail ACC PER Māui TAM cut.off-PASS ai
e Hine-nui-te-pō. (Grey 1928:23)
by Hine-nui-te-pō

It was because Fantail laughed at Māui that (he) was crushed by Hine-nui-te-pō.

However a temporal interpretation is quite possible for 1337, as shown in an alternate translation:

1337a. It was when Fantail laughed at Māui that he was crushed by Hine-nui-te-pō.

Likewise 1336 is not obviously causal, nor is the following:

1338 Nō te wehenga rua o te pō rā anō mātou tokotoru i hoki ai ki te kāinga. (Huia 1995:35)

In the middle of that night we three returned home.

To further complicate matters, a causal reading is possible for the following, which has *ka* marking the verb:

1339 Nō te hinganga o te taniwha nei, ka pakaru a Ngāti Porou ka whati.

When (because) this chief fell, Ngāti Porou broke and fled. (Biggs 1997:171)

One consultant felt that the use of *ai* implied reason, but this clearly does not account for the above examples. Why *ai* has been included to mark the fronting of these nominalisations remains unclear mainly due to lack of data. Consultants did agree that *ai* was optional, which suggests that it may be resultative *ai*.

Most sentences with fronted past time nominalisations do not include *ai*. The most common preposition is *nō*, although *i* is also used, and occasionally there is no preposition:

1340 Te tirohanga atu kua tapa-hia tō.rātou taura.
the examine DIR TAM cut-PASS their rope

When they looked up, their rope had (already) been cut. (Biggs 1997:135)

A range of TAMs are used to mark the main verb. *Kua* indicates that the event has already occurred by the time indicated by the adverbial, as in 1340. *Ka* usually indicates that the main verb action immediately follows the event recounted in the time adverbial:

1341 I te kite-nga mai anō o te ope, ka whati.
at the see-NOM DIR EMPH of the army TAM flee

As soon as the army saw it they fled. (Reedy 1993:63)

E .. ana indicates that the action is ongoing at the time indicated by the adverbial:

1342 Te tae-nga atu, e hui ana ngā mātua a Ngāti Porou.
the arrive-NOM DIR TAM assemble TAM the(pl) main.body of Ngāti Porou

When he arrived there the companies of Ngāti Porou were assembling. (Biggs 1997:173)

I have non-*ai* examples from the narratives by authors from 11 different iwi suggesting that these constructions are widely used and still productive. Classical examples with *ai* are from Ngāti Porou and Te Arawa, with modern examples from Tūhoe, Ngāti Whātua, and Ngāti Awa.

4.2.4.2.4 Clauses

The usual way of expressing past time adverbials that involve action in Māori is to use a nominalisation, but clauses of various constructions can also be used. The commonest construction involves coordination of clauses using *ka*:

1343 Ka oti te mahi, ka hoki mai rātou ki te kāinga. (Huia 1999a:56)
TAM finished the work TAM return DIR they to the home

When the job was done, they returned home.

The relationship between the time adverbial and the main clause is indicated by *rawa* 'finally' in the following, without TAM marking (*tonu, kau,* and *noa* can also act this way):

1344 Hoki rawa atu a Rata, kua tū anō te rākau rā ki runga.
return finally PER Rata TAM stand again the tree LOC to up

By the time he returned the tree was upright again. (Reedy 1993:35)

Coordination with *ana* is common in narratives and can refer to any time period:

1345 Hiki ana te hui, hoki-hoki ana ngā tāngata ki ō.rātou kāinga.
adjourn TAM the meeting return.DUPL TAM the(pl) people to their(pl) home

When the meeting closed, everyone went home. (Harlow 2001:240)

Nō .. ka introduces the time adverbial in the following (a rare construction only found in older texts):

1346 Nō rātou ka rongo, ka wero-wero i roto i ō.rātou ngākau.
at they TAM hear TAM stab.DUPL ACC inside at their(pl) heart

When they heard this, they were cut to the heart. (Acts 2:37)

Ka .. ana, which may also be used for future time, may mark the adverbial:

1347 Ā, ka mutu noa ana tāna pērā-tanga ka mau ki te wahine
and TAM finished freely TAM his like.that-NOM TAM hold ACC the woman
ka whakairi-a ake ki runga o te whare, engari kāhore i whakamate-a.
TAM hang-PASS DIR to upon of the house but NEG TAM kill-PASS

And when he had finished all that he embraced the woman and hung her on top of the house but she was not killed. (Raukatauri 1892:88)

Bauer stated that when past time clauses are fronted *ka* marks the main verb and *ai* is not used to mark the fronting (1997:378). I have found no examples where *ai* has been used to mark a fronted past time clause. *Ka* is the most common TAM used, but *kua* is also possible, particularly where the subordinate clause includes *rawa* as in 1344.

4.2.4.3 An idiomatic time expression with *ai*

There is an expression for a time adverbial with a fixed structure which is arguably idiomatic. The particle *i* introduces the adverbial followed by its subject, and the adverbial's verb is marked by *i .. ai.* It translates as 'when' or 'while'. The following example demonstrates:

1348 **I** a mātau **i** hoki mai **ai** i Toka-a-kuku ka tae mai ki Whare kahika.
at PER we TAM return DIR ai from Toka-a-kuku TAM arrive DIR to Whare kahika

When we were returning from Toka-a-kuku we arrived at Whare kahika.

The adverbial need not be fronted:

1349 I mate ia i te iwi o Rangi-houhiri, **i** a rātou **i** whakaeke **ai**
TAM dead he by the people of Rangi-houhiri at PER they TAM attack ai
i Maketū.
ACC Maketū

He was killed by the people of Rangi-houhiri when they attacked Maketū. (Jones and Biggs 1995:151)

I have 12 examples of this construction in my database, half of which have the adverbial fronted. Most of the examples are from modern texts, from authors who belong to either the Tainui or Tūhoe iwi. All are past tense.

When the adverbial precedes the main clause *ka* marks the main verb as in 1348. When the adverbial follows the main clause the absolute past tense marker *i* marks the main verb as in 1349. This suggests that the fronted adverbial establishes the tense and only a non-specific verbal marker is required in the main clause.

It is problematic accounting for the use of *ai* in this particular construction. The highlighted *ai* are part of the adverb clauses and do not mark fronting. I have found no example where a second *ai* is located after the main verb to mark the adverb fronting. If *ai* is a resumptive pro-form in this construction then it is difficult to establish just what NP it may be referring to. One possibility is that the adverbial has undergone ellipsis from a cleft construction which has the verbal component as an *ai* relative clause, with subsequent subject raising. Thus the adverbial of 1349 may have been as follows:

1349a. .. i te wā i whakaeke ai rātou i Maketū
at the time TAM attack ai they ACC Maketū

.. at the time they attacked Maketū

If this is the case then the *i* introducing the adverbial is a preposition and the adverbial is phrasal. *Ai* or one of the locative particles would be obligatory as the resumptive pro-form for an oblique head. A consultant confirmed that *ai* or *rā* could be used in 1349, and that a sentence without one of these was decipherable but did not seem complete.

This structure described here is very similar to another ‘while’ construction in Māori where *e .. ana* marks the verb, often used in an idiomatic expression concerning growing up:

1350 I ahau e tamariki ana .. (Huia 1997:23)
at I TAM children TAM

When I was growing up ..

Bauer suggests that the *i* in this construction is the location preposition and that the 'remainder is a clause functioning as the complement of that preposition' (1997:592). The ellipsis hypothesis is also possible for these examples. A classical example follows with a locative particle in the place of *ana*:

1351 I a au e tū nei i Whakaari, ka whakatakoto-tia atu e ahau
at PER I TAM stand LOC at Whakaari TAM lay.down-PASS DIR by I
taku mauri ki te wai ..
my mauri to the water

While I was standing at Whakaari, I laid down my mauri in the water .. (Orbell 1992:42)

I have found no textual examples with *e .. ai* marking. The use of *i .. ai* is probably a dialectal variant of *e .. ana*. At this stage the derivation of this idiomatic structure is uncertain and the ellipsis hypothesis must remain tentative.

4.2.5 Means

Means adverbials are those which accord with certain 'how' statements in English. As well as general 'means' statements, how statements in English also refer to 'manner' (which describe the manner in which a process is carried out, e.g. secretly) and 'instrument' (which usually refer to a concrete item used to carry out an action, e.g. with a knife) (Huddleston and Pullum 2002:673). In Māori, manner is usually conveyed by the use of post-verbal particles. Statements about instruments are PPs introduced by *ki,* and can not be fronted. Only 'means' statements are discussed here.

4.2.5.1 Means phrases

Means phrases are adverbials introduced by the preposition *mā* 'by means of, by way of'. Some means phrases are concerned with the means by which an action is carried out, (henceforth 'by means of'). Others are concerned with means of transport or route (henceforth 'by way of'). Means phrases are often fronted for emphasis. There are four different ways of marking the verb, depending on the speaker's dialect and the specific meaning of the phrase.

The first construction has *e .. ai* marking the main verb. It should be noted that although *e* is normally used to mark non-past, in this construction it is used to represent all tenses:

1352 Mā te aha rā e tae-a ai te tiki?
by the what EMPH TAM effect-PASS ai the fetch

But how could [did] we fetch it? (Reedy 1997:60)

Examples of this construction come from a number of iwi in both time frames. In all cases the *mā* phrase expresses the 'by means of' meaning. A further example follows:

1353 Mā te aha ngā tuna e maroke ai?
by the what the(pl) eel TAM dry ai

How will the eels be dried? (Foster 1987:162)

The second construction has *ai* alone marking the main verb:

1354 Mā whea ake koe kake ake ai e Whiro?
by where DIR you climb DIR ai VOC Whiro

Where did you climb up, Whiro?

Examples of this construction come from a range of iwi. In all cases the fronted *mā* phrase expresses the 'by way of' meaning. A further example follows:

1355 Mā ngā taha piki ai, kāore e tae-a mā ngā mata.
by the(pl) side climb ai NEG TAM effect-PASS by the(pl) face

It could be climbed by the sides, not the face. (Pōtatau 1991:57)

The third construction has *ka .. ai* marking the main verb:

1356 Mā ēnei tikanga hoki ka ngāwari ai ngā ara, ngā huarahi, mō ā.tātou
by these method EMPH TAM easy ai the(pl) way the(pl) path for our(pl)
tamariki e whai ana, e rapu ana rānei i te mātauranga o te Pākehā.
children TAM follow TAM TAM search TAM or ACC the knowledge of the Pākehā

In this manner you will ease the way for our children as they seek the knowledge of the Pākehā. (Biggs 1997:81)

All examples of this construction are from modern texts and by authors of Northern iwi. In all cases the fronted *mā* phrase expresses the 'by means of' meaning.

The final construction has *ka* alone marking the main verb:

1357 Mā te tokomaha ka kā te ahi.
by the multitude TAM burn the fire

By the many will the fire be kept burning. (Mead and Grove 2001:287)

Examples of this construction come from a range of iwi. In all cases the adverbial expresses 'by means of'. Most examples in my corpus are from modern texts:

1358 Mā te tini ka tae-a.
by the many TAM effect-PASS

It will only be done by a large number of people. (Mead 1999a:77)

Some traditional proverbs have this structure:

1359 Mā pango mā whero ka oti te mahi.
by black by red TAM finished the work

By chiefs and commoners the work is finished. (Mead and Grove 2001:292)

There are 55 sentences in my corpus with a fronted means phrase. 37 of these sentences in my corpus contain *ai*, with 18 of the *ka* form included for comparison. Considering the *ai* corpus first, 24 use *e .. ai,* eight have *ai* alone, and the remaining three use *ka .. ai*. There is a clear difference in the distribution, use, and meaning of each of these VP constructions.

Although my corpus of sentences with fronted means adverbials is not large, it suggests that the verb marking could be being determined by the specific meaning of the adverbial. For 'by way of' adverbials *ai* alone appears to be used with context determining whether the meaning is route or means of transport. For 'by means of' phrases *e .. ai* is preferred. The two following examples, both from the same text, show how the different VPs are used to express 'by way of' and 'by means of' respectively:

1360 Ka kī atu a Māia, ' Mā whea rā au haere ai?'
TAM say DIR PER Māia by where EMPH I move ai

Māia said, 'But how can I go?' (Reedy 1997:42)

1361 Te kī-nga atu a Kahukura, ' Kāti rā, mā konā e tae-a ai.'
the say-NOM DIR PER Kahukura stop EMPH by that TAM effect-PASS ai

Kahukura said, 'That will do, it can be fetched that way.' (Reedy 1997:60)

The above examples show that the subject, where present, can be located either before or after the VP. *Mā* means phrases may be nominalisations, in which case the underlying subject is realised as a possessive as usual. All examples in my corpus are stem nominalisations:

1362 Mā te mōhio hoki o te tangata ki.te kōrero Pākehā
by the know EMPH of the person TAM speak English
e whiwhi moni ai ia .. (Karetu 1991:169)
TAM achieve money ai he

It is also through knowing how to speak English that he gets money ..

Nā fronted phrases can be used to refer to past tense means adverbials where the means discussed is quite specific. In particular the phrase *nā te aha* 'by what means' is used. Means and reason adverbials in Māori can have the same structures and the context must be used to distinguish between them. Consider the following extract, which contains an example of a past time means adverbial and a verb marked by *i .. ai*:

1363 I aua wā o te kore waea kōrero, rererangi rānei, kore hōiho hoki, kore rori, uaua hoki te kitekite a tētahi hapū i tētahi hapū, nā te aha rā, **i** tere **ai** te mōhio a Ngāti Porou kei te haere mai a Pōmare, ā ko tōna kaupapa he maunga-a-rongo?

Because at the time there was no telegraph, or airplane, or horses, or roads, and it was difficult for one tribe to visit another, how did Ngāti Porou know so quickly that Pōmare was approaching and that his purpose was peaceful? (Biggs 1997:169)

4.2.5.1.1 The *ka* or *ai* form?

'By means of' means phrases (at least) can have either *ka* or *e .. ai* marking. An analysis of their use in narratives has failed to establish any obvious difference between these, although there are very few examples to work with. Most authors in my database have a preference which they use exclusively. Certainly in the case of interrogatives, *e .. ai* is strongly preferred by my consultants for 'by means of':

1364 Mā te aha e oti ai (?ka oti) te mahi?
by the what TAM finish ai TAM finish the work?

How will the job be finished?

For 'by way of' the *ka* form was rejected by older consultants:

1365 Mā hea koe tae atu ai ki Kirikiriroa?
by where you reach DIR ai at Hamilton

1366 * Mā hea koe ka tae atu ki Kirikiriroa?
by where you TAM reach DIR to Hamilton

How will you get to Hamilton?

For non-interrogative 'be means of' sentences, consultants felt that the VPs in these sentences could be altered with no change in meaning or obvious change in emphasis.

4.2.5.2 Means clauses

Means clauses are introduced by the TAMs *me* or *i*. Most have the pro-verb *pē(w)hea* 'act in what way' following the TAM. An example follows:

1367 Me pēhea rā tātou e mōhio ai? (Reedy 2001:142)
TAM how EMPH we TAM know ai

How will we know?

The structure is predictable. The means clause precedes the main clause and the main verb is marked by *e .. ai*. I have found no examples where a means clause follows its main clause.

The following example suggests that *pēhea* can function as a simple adverbial by modifying a verb:

1368 E haere pēhea ana rātau?
TAM move how TAM they

In what direction were they travelling? (Mead 1999a:51)

Although 1368 was considered acceptable, a consultant provided a paraphrase she felt was more usual:

1368a. Me pēhea rātau e haere ai?
TAM how they TAM move ai

There are 32 sentences with fronted means clauses in my database. They are from a wide range of iwi in both classical and modern texts. All have *ai* marking the main verb.

Me is the most commonly used TAM for the adverbial. Most are future orientated in which case *e .. ai* marks the main verb as in 1367. For past tense the main verb can be marked with *i*. An example follows:

1369 Me pēhea ahau i mōhio ai he tika ēnei kōrero? (Huia 1998:56)
TAM how I TAM know ai CLS correct these story

How did I know that these stories were correct?

There are two examples (also from modern texts) which have the TAM *i* introducing the adverbial:

1370 .. i pēhea rā i mōhio ai te toa tokoroa ki a koe.
TAM how EMPH TAM know ai the warrior tall ACC PER you

.. how the lanky warrior knew you. (Reedy 2001:84)

Manner clauses are often used in utterances concerned with how to achieve a particular goal. An example follows:

1371 Me pēhea rā e riro ai i a au?
TAM how EMPH TAM obtain ai by PER me

How can I get her for myself? (Biggs 1961:133)

The subject of the main verb (when present) may be located either before or after the main verb, with the former strongly preferred when the subject is a pronoun.

The above examples are all 'by means of'. The close semantic relationship between the 'by means of' and 'by way of' expressions in Māori is shown in the following example, for which both are feasible:

1372 Rarurarau ana a Tūmatahina, me pēhea tana iwi e puta ai
trouble TAM PER Tūmatahina TAM how his people TAM emerge ai
ki tuawhenua.
to mainland

Tūmatahina was faced with the problem of how his people could escape to the mainland. (Clother 2002:29)

Me manner clauses can also be unambiguously 'by way of' statements, particularly when *me* is followed by *aha* 'do what':

1373 Me aha rā e tae-a ai a Hawaiki?
TAM what EMPH TAM effect-PASS ai PER Hawaiki

How does one reach Hawaiki? (Biggs 1997:187)

Me aha means clauses are not as common as *me pēhea* clauses. There are five of these in my corpus, all from classical texts. All have the *me aha* clause fronted and the main verb marked by *e .. ai*. *Me aha* type clauses can also refer to 'be means of' as in the following:

1374 Ā, me aha ia e mate ai?
and TAM what he TAM dead ai

Now, by what means can he be killed? (Reedy 1993:36)

I have found no examples of sentences with means clauses where the main verb is marked by *ka*. However *ka .. ai* is used, with one Māori grammar text claiming that this is the standard format (Foster 1987:164). In fact my data suggests that *e .. ai* is far more common. There are only three examples in my corpus of narratives with *ka .. ai* marking, all from classical texts. An example follows:

1375 Me pēhea rā ka whiti ai au ki Mokoia? (Grey 1928:110)
TAM how LOC TAM cross ai I to Mokoia

How can I cross to Mokoia?

It is not obvious why *ka .. ai* is preferred here as this sentence is similar to examples above in its communicative force.

Means phrases and clauses appear to be relatively interchangeable. Mohi Ruatapu of Ngāti Porou used both constructions in his writings. In his two sentences that follow the utterances are almost identical in meaning (although 1376 is in fact rhetorical):

1376 Mā te aha e mate ai te atua i a koe?
by the what TAM dead ai the god by PER you

How could you kill a god? (Reedy 1993:63)

1377 Ā, me aha ia e mate ai?
and TAM what he TAM dead ai

Now, by what means can he be killed? (Reedy 1993:36)

Me pēhea/aha clauses expressing means can also be followed by nominalisations:

1378 Me pēhea te whakawātea i te huarahi mō ngā tira haere?
TAM how the cleared ACC the track for the(pl) group move

How could the track be cleared for travellers? (Mead 1999a:39)

Sentences such as 1378 do not contain *ai* and will not be considered in detail here. They have the same sense as their verbal paraphrases.

Although it has been implied here that a *me pēhea/aha* clause has the form of a fronted means adverbial, an alternate interpretation is possible in which the adverbial is the predicate of the sentence and the remainder of the sentence is its subject which has the form of a headless relative clause. The subject of the relative clause is optionally raised, with a strong preference if it is a pronoun:

[Me pēhea]$_{Pred}$ [e haere mai ai koutou]$_{Su}$

Some evidence for this proposal comes from 1378 in which the me pēhea clause is the predicate and the nominalisation phrase is the subject of the sentence:

[Me pēhea]$_{Pred}$ [te whakawātea i te huarahi]$_{Su}$

This proposal is appealing for a number of reasons. Firstly, the adverbial is always sentence initial. This is the preferred position for the predicate of an unmarked Māori sentence. It also conforms with sentence stress patterns. Sentence stress falls on the predicate and my consultant invariably stressed the adverbial's base (*pēhea* etc.) when reading aloud the sentences included in this section. Secondly, because such clauses do not appear to be able to follow the main clause, describing them

as fronted seems somewhat contrived, as does the suggestion that *ai* marks the fronting. As with *koia* sentences previously described, *ai* would be expected as a participant in the headless relative clause. This suggestion is hypothetical but its veracity does not affect the data on these manner clauses provided here.

4.2.6 Location

In verbal sentences the location of an event as a whole is expressed as a PP which is often located after the verb:

1379 Ka mate te wheke a Muturangi i konei.
TAM dead the octopus of Muturangi at there

Muturangi's octopus died there. (Biggs 1997:35)

The location can be placed in the sentence initial position for emphasis, particularly when the location is already known:

1379a. I konei, ka mate te wheke a Muturangi.
at there TAM dead the octopus of Muturangi

This is non-contrastive fronting. A textual example follows:

1380 I reira, ka tū te tira ki te tina. (Waititi 1985:57)
at there TAM set.up the group at the dinner

There, the travelling party had lunch.

Occasionally the verb in these sentences is marked by *ai*. This is rare for past tense. The following example has the locative noun *mua* 'before' being used as a verb, which is also rather unusual:

1381 I reira au i mua ai.
at there I TAM before ai

I had been there formerly. (Stowell 1911:77)

For future location marking the fronting by *ai* is more common. Often the adverbial is introduced by *hei* and the verb is marked by *ai* alone. I have examples of this structure from six iwi from the Eastern and Central regions of the North Island:

1382 Hei konei koutou noho ai.
at here you stay ai

Stay here. (Biggs 1997:113)

The prepositions *ki* and *ko* are also possible for future location, particularly for Northern iwi:

1383 Nā, ki hea koutou e noho ai?
VOC at where you TAM stay ai

Well, where do you usually live? (Huia 1997:19)

1384 Ko konei ngā wairua noho tatari ai mō te wā tika ..
at here the(pl) spirit sit wait ai for the time correct

The spirits wait there for an opportune time .. (Clother 2002:35)

These sentences are identical to those with fronted future fronted time phrases, as the two following examples show (time and location usually have the same syntactical treatment in Māori):

1385 Hei āpōpō au tae atu ai.
at tomorrow I arrive DIR ai

Tomorrow I'll be there. (Orbell 1992:56)

1386 Hai konei tāua noho ai.
at here we stay ai

We must stay here. (Reedy 1993:26)

There are 30 sentences in my corpus with fronted location that have the main verb marked by *ai*. 13 are from classical texts and ten from modern. Six are past tense examples, all with the form of 1381. The remainder are future with the prepositions *hei* (15), *kei* (2), *ki* (4), and *ko* (3).

The most common bases found after the preposition are the anaphors *reira* 'aforementioned place' and *konei / konā / korā* 'here / there', indicating that the fronted phrase is not normally new to the discourse.

It may be useful to consider what factors influence the inclusion of *ai* in these sentences. The fronted wh-question form usually has *e .. ana* marking the verb in all time frames, with *ana* precluding the use of *ai*:

1387 I hea kōrua e ako ana?
at where you TAM study TAM

Where were you studying? (Reedy 2001:72)

No examples with *ai* in these questions were found in my corpus of narratives. There is one example with *ka* from a recorded speech by Tūhaka Kōhere, although my consultant would have preferred *e .. ana*:

1388 I hea a Apirana **ka** kauwhau mō te ahuwhenua i ērā rā?
at where PER Apirana TAM lecture about the agriculture at those day

Where was Apirana's speech-making about agriculture in those days? (Biggs 1997:197)

Analysis of the narratives shows that it is possible to see why some authors use the rare *ai* form. In the following extract, the location, although known to the listener, is introduced into the discourse in a dramatic manner:

1389 Te mōhiotanga o Kai-ahi kua hapū i a ia a Peha, ka kōrero atu ki tana wahine, 'Hei konei noho ake **ai**.'

When Kai-ahi knew that Peha was pregnant he said to his wife, 'Remain here.' (Jones and Biggs 1995:95)

In contrast, in the following extract by the same author, the location PP 'sets the scene' and modifies the whole sentence:

1390 Ka hahae mai te ata, ko te haerenga o Rangi-waea, ā, ka tae ki Te Iringa. I reira **ka** kite atu i te ringa wairua rā e whakaputa ake ana i te moana.

At dawn Rangi-waea left and went to Te Iringa. There, she saw the spirit hand appearing above the water. (1995:87)

Other sentences in his text conform to this usage, as do the writings of other authors. The following extract from Hirini Mead has the location crucial to the action and in focus:

1391 Ka mea atu too rāua hākui ki a rāua, 'Ko te tikanga tuku iho a ō tātou tīpuna me moe kōrua i te taha o tō kōrua kuia. Nā, haere mai ki taku taha moe ai!'
Ko Karihi te mea kakama ki te whakahoki, 'E pai ana, e kui. Ki konei māua moe **ai**!'

Their grandmother said to them, 'According to the customs of our ancestors, you are supposed to sleep beside your grandmother. Now, come over here and sleep beside me!'
Karihi was quick to answer, 'It's all right grandmother. We'll sleep here!' (1996a:52)

In contrast in the next extract from the same text the location is continuing topic and a full sentence adverbial:

1392 Ka piki, ka heke; ka piki, ka heke, ā, ka whakatata atu rāua ki te whenua me te taha moana o Ngāti Ponaturi. I konei **ka** karakia anō a Tāwhaki.

They climbed many a hill and went down the other side and eventually they approached the land and beach where the Ponaturi lived. Here Tāwhaki offered some more prayers. (1996a:34)

It appears that at least some authors use *ai* to focus on a location which is closely associated with the verb, preferring the *ka* form for full sentence adverbials. The rare occurrence of *ai* in these sentences in narratives is expected given the frequent use of location to 'set the scene'.

4.3 Location emphasis

4.3.1 Background

In this section a use of *ai* is described in which it appears to resume a specific location PP found in a previous clause. An example follows which shows the typical pattern:

1393 Ka haere hoki a Ngātoro ki te motu, noho ai. (Grey 1928:79)
TAM move also PER Ngātoro to the island live ai

Ngātoro also went to the island, and stayed there.

This sentence consists of two clauses, each with its own verb (*haere* 'move' and *noho* 'live'). The clauses have the same subject which does not appear in the second clause. The *ai*-marked verb has no TAM, and *ai* indicates to the listener the importance to the utterance of the previously mentioned location—shown in this example by the inclusion of 'there' in the translation. In this section the terms 'location emphasis clause' will refer to the *ai*-marked clause and 'prior clause' will refer to the clause which contains the location being emphasised.

Examples of sentences with location emphasis clauses are found in most grammars and teaching texts, although to my knowledge no author has attempted a detailed description, and there are a variety of analyses used. Maunsell for example, emphasised the sequential nature of the actions, and he provided a simple imperative example (1862:90):

1394 Haere ki reira, noho ai.

Go there and stop.

Other authors also noted a dependence between the actions being described, for example Smyth (1943:153), and also Biggs, who called this use of *ai* 'resultative', with '*noho ai*' given the meaning 'remain accordingly'(1961:242). Ryan described this use of *ai* as a 'connecting link', presumably also showing dependence between the adjoined clauses in the example he provided (1986:88):

1395 Ka hoki anō ngā tamariki ki te kura mahi ai.

The children returned to school to work.

Indeed there is always a dependence between the actions described in the prior and location emphasis clauses although the early grammars tended to underestimate the importance of the obligatory location PP in the prior clause. Moorfield's text was the first to specifically state that the location of the action was important to the utterance, by observing that the verb marked by *ai* would 'follow the information giving the location of the action', and that this use 'only applied when the location of the action has been stated' (1988:129). This was also clearly the proposal of Foster

(although espoused rather differently) when he stated that where *ai* was following an 'explanatory verb' it was 'making reference back to some previously stated or understood *place*' (1997:42).

In her description Bauer emphasised the intent of the actor, by classifying the *ai*-marked segment as a form of purpose clause, adding that it could also be called 'dependent action' because the second action was 'dependent upon (and therefore subsequent to) the first action' (1997:384). Harlow also viewed this construction as one of purpose, but noted that it could only be used 'after verbs of motion plus a comment naming the place to which that motion is directed' (2001:246).

In this work dependence is taken for granted and it is the emphasis placed on a location mentioned earlier in the utterance that is seen as the critical factor. Consider the following constructed example, which is similar to many found in the narratives:

1396 Ka hoki ngā tamariki ki te kāinga, moe ai.
TAM return the(pl) children to the home sleep ai

The children went home to sleep there.

This sentence is similar to 1393 in form. Consultants confirm that the subject should not appear in the second clause and that the location is indispensable. *Ai* refers the listener to the location which is being emphasised as the appropriate place for the children to sleep. Consultants felt that 'there' was implied by *ai* and two insisted that it be included in the translation.

Contrast this sentence with the following, in which the second clause is *ka*-marked:

1396a. Ka hoki ngā tamariki ki te kāinga, ka moe.
TAM return the(pl) children to the home TAM sleep

The children went home, and slept.

In this sentence *ka* indicates that the second action follows the first. There is no sense of purpose, and no emphasis is placed on location.

A third possibility is the following:

1396b. Ka hoki ngā tamariki ki te kāinga ki.te moe.
TAM return the(pl) children to the home TAM sleep

The children went home to sleep.

In this sentence the *ki te* clause indicates purpose and the location is not emphasised or indeed particularly relevant to the final clause.

Purpose and location emphasis clauses are both dependent on the preceding clause for their interpretation but they have different meanings. The following textual example, which contains both a location emphasis and a *ki te* purpose clause, shows this difference:

1397 Ka tū te haka, kātahi a Paoa ka puta ki te roro o te whare
TAM stand the dance then PER Paoa TAM emerge to the porch of the house
noho ai ki.te mātakitaki, kīhai ia i tata atu; (Grey 1928:165)
sit ai TAM watch NEG he TAM close DIR

The dance began, and Paoa came to the front of the house to sit there and watch, but not too close;

The location emphasis clause emphasises that the front of the house is the appropriate place to sit (*noho ai*) for the purpose of watching (*ki te mātakitaki*) the dance.

The final possible variation of 1396 involves *ka .. ai* marking the verb of the final clause. My consultant felt that 1396 with *ka moe ai* made no sense and instead provided the following sentence:

Kia hoki ngā tamariki ki te kāinga, ka moe ai.
TAM return the(pl) children to the home TAM sleep ai

When the children go home then they will sleep.

The first clause is a future time clause and *ka .. ai* adds the sense of future intent 'and then' to its clause. *Ka .. ai* indicates the logical dependence of its clause on a prior clause and is not an alternative to location emphasis. The *ka .. ai* construction is discussed in Section 5.2.

In summary, it is argued here that a location emphasis clause such as *moe ai* emphasises that the action occurs at a previously specified location which is an obligatory constituent of a prior clause. It is not a purpose clause, as Bauer asserts, although it is dependent on the location described in the prior clause. *Ai* resumes the location PP in its clause and its use is obligatory.

An extract will show how this construction is used in a narrative to emphasise location. It is from a Te Arawa narrative. Whakatūria, Tama-te-kapua's younger brother, is captured by Uenuku and hung up in the rafters of Uenuku's house to die. Tama devises an escape plan which involves Whakatūria eventually leaping out the door. It is crucial that Tama wait beside the door so that he can shut it when his brother emerges. The location is emphasised by *ai*:

1398 Ka mutu ngā tohutohu iho a Tama-te-kapua ki te teina, ko te hekenga atu ki raro, ka haere ki te roro o te whare, noho tatari mai **ai** ki te teina.

After Tama-te-kapua had finished his instructions to his brother, he descended and went to the porch of the house, crouching in wait for his brother. (Biggs 1997:63)

4.3.2 The construction

There are 403 sentences in my corpus of *ai* sentences that contain location emphasis clauses. Of these, 207 are from classical texts and 162 from modern. Location emphasis is widely used by speakers from all tribal areas in both time frames.

When *ai* is deleted or replaced by a locative particle the result is ungrammatical:

*Ka hoki ngā tamariki ki te kāinga, moe.
TAM return the(pl) children to the home sleep

*Ka hoki ngā tamariki ki te kāinga, moe nei/nā/rā.
TAM return the(pl) children to the home sleep LOC

Post-verbal *ana* may be located in the position occupied by *ai*, but this utterance does not emphasise location, merely indicating that the second clause is verbal:

Hoki ana ngā tamariki ki te kāinga, moe ana.
return TAM the(pl) children to the home sleep TAM
The children returned home and slept.

In over 90% of the sentences in my corpus the prior clause is verbal. 33 sentences have a non-verbal prior clause, many of which have a specific structure. Non-verbal prior clauses will be discussed separately.

4.3.2.1 Verbal prior clauses

Most of the examples in my *ai* corpus consist of two verbal clauses as in 1393. Other more complex constructions are possible where the prior clause is part of a subordinate clause. In the following, for example, the prior clause is the complement of the verb *mea* 'say':

1399 .. ka mea atu a Horo-whenua **kia whakaheke-a ki raro moe ai**. (Grey 1928:171)
TAM say DIR PER Horo-whenua TAM move-PASS to south sleep ai
.. Horo-whenua said that they should go south and sleep there.

The description here is based on two clause sentences but conclusions can be applied to all constructions.

4.3.2.1.1 The verb in the prior clause

Harlow observed that the prior clauses usually contain 'verbs of motion plus a comment naming the place to which the motion is directed' (2001:246). Actually, any verb that can license a location role

may act as the verb in the prior clauses (henceforth prior verb). In most cases the prior verb describes a movement of some kind. Over 70% of the location emphasis corpus have an action intransitive verb as the prior verb, such as *haere* ‘go’, and *hoki* ‘return’. Two examples follow (note that different TAMs can mark the prior verb):

1400 Ka rere te manu rā ki te marae o te kāinga tū ai
TAM fly the bird LOC to the marae of the village stand ai

That bird flew onto the village’s marae and stood there (Orbell 1992:131)

1401 Kua eke te tinana katoa ki runga i te tahā rā pēhi ai. (Grey 1928:92)
TAM climb the body all to upon at the calabash LOC depress ai

The whole body climbed on top of that calabash and pressed down.

Over 20% of the corpus have a canonical transitive verb as prior verb, such as *kawe* ‘bring’, *tō* ‘tow’, and *tuku* ‘send. The verb is usually passive and its patient (where present) is the surface subject and the underlying subject of the location emphasis clause. These verbs all involve movement to a new location which is then emphasised by the location emphasis clause. Two examples follow which show the usual pattern:

1402 Ka tō-ia ki uta haehae ai.
TAM tow-PASS to shore cut.up ai

It was dragged ashore and cut up.(Reedy 1993:101)

1403 Ka ruke-a ngā tūpāpaku ki waho pūkai ai (Grey 1928:129)
TAM pour-PASS the(pl) corpse to outside heap.up ai

The corpses were taken outside and piled up there

Just under 10% of my corpus of prior verbal clauses have a neuter verb as prior verb. Only those neuter verbs that can also be semantically associated with a location can act as a prior verb, verbs such as *waiho* ‘be left’, *riro* ‘be taken’, *mahue* ‘be left behind’, and *ngaro* ‘be hidden’. The role of the location depends largely on the verb, although it is clearly not a goal in all instances. Two examples follow:

1404 Ka waiho ā.rāua kākahu i te taha o te wai takoto ai.
TAM left their(pl) clothes at the side of the water lie ai

Their clothes were left beside the water. (White 1890a:402)

1405 .. ko te waka kau i mahue iho i reira takoto ai; (Grey 1928:69)
EQ the canoe alone TAM left DIR at there lie ai

.. only the canoe was left to lie there;

4.3.2.1.2 The location PP

In location emphasis, *ai* cannot refer across sentence boundaries. All examples are complex sentences with a location PP as an obligatory component of a prior clause. The location may be a place name, a common noun (1406), a locative noun such as *taha* (1404), or the location anaphor *reira* (1405). It is either a goal of the prior verb or the at rest location of the subject of both clauses.

The prepositions *ki*, *i*, and *ko* are attested in my corpus as introducing the location NP. *Ki* is used by most iwi when the location is a goal of the prior verb:

1406 Whakahoki-a ki tō rohe noho mai ai!
return-PASS to your area live DIR ai

Take him back to live in your district! (Mead 1999a:26)

Northern iwi also use *ko*, which appears to be equivalent to *ki* in marking goal:

1407 Ā, tēnā moana, i mua, kia tāti te mango i te whānau ko konā ranga ai
and that sea at past TAM start the shark TAM be.born at there gather ai

In former times, in that river, when sharks would start to give birth they would gather there (Matiu and Mutu 2004:39)

At rest location is usually marked by *i*. In the following example, *i ngā marae* is the location of the subject *tātou*:

1408 Kaua tātou e noho tonu i ngā marae o ō.tātou kāinga, inoi ai
NEG we TAM live still at the(pl) marae of our(pl) home pray ai
kia hōmai te ture pai.
TAM give the law good

Let us not continue to dwell on our land, praying for good laws. (Biggs 1997:193)

I can also mark source but this is not compatible with location emphasis because the *ai*-marked action must take place at the emphasised location. The following generated sentence is ungrammatical:

1409 *I haere mai ia i taua rohe kimi tāne ai.
TAM move DIR she from that area search husband ai

She came from that area to find a husband there.

With the PP as a goal the sentence becomes grammatical:

1410 I haere atu ia ki taua rohe kimi tāne ai.
TAM move DIR she to that area search husband ai

She went to that area to find a husband there.

At rest location can also be marked by *ki*:

1411 Waiho tāu rākau ki konei takoto ai.
leave your tree at here lie ai

Leave your tree lying there. (Tremewan 2002:195)

Bauer observed that *ki* was preferred where there was a prior movement to the location and that there was a 'stationary/movement' distinction made between *i* and *ki* (1997:223). Harlow was of the same opinion, indicating that when there was a choice of preposition 'if movement was an essential factor preceding the event, then *ki* was preferred' (2001:175). Most examples in my corpus conform to this distinction. In 1412 there is no prior movement on the part of the women, who are waiting at home for their men to return from war, and the PP is introduced by *i*.

1412 Ka noho te hunga wāhine i te kāinga whanga ai; (Karetu 1991:120)
TAM stay the people women at the home wait ai

The women sat at home and waited;

In contrast 1413, also by Karetu, is from a narrative describing an interlude in a journey, and the PP is introduced by *ki*:

1413 Kātahi mātau ka noho ki reira tangi ai. (1991:137)
then we TAM stay at there weep ai

Then we stayed there and wept.

However not all examples in my database appear to obey the above distinction. In the following sentence, Taka-kopiri and his companion have gotten ahead of Te Kahu when Taka-kopiri insists that they wait until she catches up. Despite the prior movement the PP has *i*:

1414 Tāua ka noho i konei tatari ai kia tae mai. (Grey 1928:124)
we TAM stay at here wait ai TAM arrive DIR

Let's sit down here and wait until she arrives.

It appears that the choice between *i* or *ki* can be a matter of some subtlety. Analysis of those examples where prior movement is involved shows that, while *ki* is strongly preferred, *i* is possible in certain circumstances. In particular it appears that the location of the continuing action may be

motivating. Predictably *ki* distances the action from the emphasised location whereas *i* is preferred when the narrative continues with the subject located at the emphasised location. In the following extract, Kape-taua is abandoned on the rock. The rest of the narrative concerns him and *i* marks the emphasised location:

1415 Ka tae rāua ki reira ka waiho te tamaiti rā a Kape-taua e Tara-kumikumi **i** aua toka rā noho ai.

When they reached there, that child, Kape-taua, was left to stay on that rock by Tara-kumikumi. (White 1890b:55)

In contrast, in the following extract, some children have gone into a forest with a servant. They murder him there, leave his body behind and return to their village. The continuing action is distanced from the location which is marked by *ki*:

1416 Ka waiho te tūpāpaku ra e rātou **ki** reira takoto ai, ā hoki ana rātou ki te kāinga kōrero ai.

They left the body to lie there and then went home to talk. (White 1890c:35)

There are a number of similar examples in my corpus of narratives. Examples like these show that when the location is not a goal then both *i* and *ki* are possible, with *ki* preferred for prior movement to the location. It also appears that *i* is possible for enduring location, irrespective of any prior movement.

4.3.2.2 Non-verbal prior phrase

There are 33 sentences in my corpus where a location PP is part of a non-verbal segment. There are three constructions described here; a nominalisation, a pseudo-passive, and an idiomatic construction.

A location emphasis clause can appear as part of a nominalisation that is required because of its grammatical role in the sentence. The following example is a past time nominalisation introduced by *i*:

1417 I taku haere-nga ki Tīpene kura ai ..
at my move-NOM to Tīpene school ai

When I went to school at Tīpene .. (Pōtatau 1991:34)

The sentence that this is derived from is a typical location emphasis sentence comprised of two verbal clauses:

1417a. I haere au ki Tīpene, kura ai.
TAM move I to Tīpene school ai

I went to school at Tīpene.

The nominalisation 1417 is a fronted time adverbial in its extract:

1417b. I taku haerenga ki Tīpene kura ai, nā Sister Edith o te Mīhana Māori Perehipitiriana i Nūhaka i kawe au i reira ..

When I went to school at Tīpene, it was Sister Edith of the Presbyterian Māori Ministry at Nūhaka who took me there .. (1991:34)

In the following example, the nominalisation which contains the location is the complement of *mō*:

1418 .. te wā mō te haere ki waho ki rō iari hīkoikoi ai. (Huia 1997:16)
the time for the move to outside to inside yard walk.about ai

.. the time for going outside into the yard to walk about.

Another arguably non-verbal construction which can act as prior clause is the 'pseudo-passive' (Harlow 2001:193), which has the fixed structure of *he mea + verb*. Two examples follow:

1419 .. he mea tō-tō ki te tuawhenua pūkei ai.
a thing drag.DUPL to the shore lie.in.heap ai

.. they were dragged ashore and left to lie there. (Biggs 1997:105)

1420 .. he mea tiki e Ngāti Paoa, ki reira riri ai ki a Nga-oho.
a thing fetch by Ngāti Paoa to there fight ai ACC PER Nga-oho

.. he was brought by Ngāti Paoa to fight Nga-oho there. (White 1890b:62)

There is also a similar non-verbal construction initiated by *he* which describes habitual action. If this structure contains a location it may also act as a prior clause:

1421 Tētahi mahi nui āna, **he haere ki te wai whakaata i Rangituhi**,
a activity main his(pl) a move to the water reflection at Rangituhi
ki reira horoi ai i ōna makawe.
at there wash ai ACC his(pl) hair

A favourite activity of his now was to go to the spring called Rangituhi, to wash his hair and comb it. (Mead 1996a:20)

There are 15 sentences amongst the non-verbal corpus of location emphasis examples that are of a particular construction. The sentence has a *ko*-topicalised subject, a location PP introduced by *ki*, and an *ai*-marked verb. Two examples follow:

1422 Ko Tinirau ki runga ki te tupuna haere ai.
TOP Tinirau at upon at the ancestor move ai

So Tinirau climbed onto his ancestor and set off. (Tremewan 2002:125)

1423 .. ko koe ki raro iho i te mataaho huna ai.
TOP you at under DIR at the window hide ai

.. you must go and hide under the window. (Reedy 1993:31)

My consultant felt that in these sentences there is a strong link made between the subject and the location where the action takes place. *Ko* fronting emphasises the subject and *ai* emphasises that the subject carried out the action at the specified location. This construction is often used when there is a contrast being made about actions that occur at different locations, as in the following extracts:

1424 Ko te kaupapa waka ki te moana hoe ai, ko te kāhui atua ki te rangi rere ai.

The work of the canoes is to sail the seas while that of the gods is to fly through the skies. (Mead and Grove 2001:253)

1425 Ko te tere kahawai rā ki waho i te moana haere ai, ko te tangata rā ki uta oma haere atu ai, me to oma, me te karakia.

The shoal of kahawai was swimming along out at sea, and the man was running along the shore and as he ran he recited karakia. (Biggs 1997:43)

Most of the examples are from classical texts, and from a wide range of iwi. The only modern example is by Hirini Mead of Ngāti Awa:

1426 Waiho, ko māua anake ki tēnei whare, moe ai.
leave TOP we only at this house sleep ai

Leave us to sleep. (Mead 1999a:138)

It is noted that the location emphasis clause in all non-verbal constructions is identical to its form in sentences with prior verbal clauses. These non-verbal constructions are not difficult to interpret.

4.3.2.3 The location emphasis clause

4.3.2.3.1 The underlying subject of the location emphasis clause

The examples above show that there is no overt subject in the location emphasis clause. The underlying subject of the location emphasis clause is also the subject of the prior clause. Tīpene is the subject of both clauses in the following:

1427 Ka haere a Tīpene ki a Bates, whakatētē kau ai.
TAM move PER Tīpene to PER Bates milk cow ai

Tīpene went to Bates to milk cows. (Pōtatau 1991:25)

The subject may be *ko*-topicalised:

1428 Ko tana tamaiti, ko Orokewa, peka ana ki tahaki noho ai.
TOP his son TOP Orokewa turn.aside TAM to one.side stay ai

His son, Orokewa, waited a short distance away. (Orbell 1992:122)

In narratives, subjects that have been previously mentioned in the discourse are often omitted:

1429 Kātahi ka hoki mai ki Maketū noho ai, mahi ai hoki. (Grey 1928:79)
then TAM return DIR to Maketū stay ai work ai also

Then he returned to Maketū and lived and also worked there.

I have one example where the subject of the *ai*-marked clause is the direct object in the prior clause. In 1430 the coordinated *i*-marked phrases are the subject of *takoto*:

1430 Ka toro-toro i te toetoe.ūpoko.tangata, i te pūhā.rau-rōroa
TAM thrust.DUPL ACC the sedge ACC the sow.thistle
ki te one takoto ai, ka hoki ia ki te kāinga.
to the sand lie ai TAM return she to the village

She pushed sedge and sow thistle around on the sand to lay there and returned to the village. (Reedy 1993:49)

The previous example was viewed as unusual by my consultants. The usual construction when the patient of the prior clause verb is the subject of the location emphasis clause is to use a passive verb in the prior clause:

1431 Ka hari-a e ahau taku hunaonga ki Puketapu, whakangā ai.
TAM carry-PASS by me my son-in-law to Puketapu rest ai

I will take my son-in-law to Puketapu where he may rest. (Mead 1999a:132)

When the prior clause is an actor emphatic construction, it is the *nā/ma*-marked phrase which is the subject of the location emphasis clause. In the following example, Ruru is the *mā*-marked agent and the subject of *tiaki* ‘to guard’:

1432 Ka waiho a Ruru, māna e pīkau te hanga o te waka ki uta,
TAM left PER Ruru for.him TAM carry the things of the canoe to shore
ki roto ki tētahi whare mā rātou, tiaki ai.
to inside to a house for them guard ai

Ruru was left to bring ashore the things on the canoe, then carry them into a building and guard them. (Orbell 1992:33)

In the case of nominalisations with embedded location emphasis clauses, the subject of the subordinate clause is also the subject of the nominalisation’s underlying verbal sentence (which is realised as some form of possessive in the nominalisation). In the following:

1433 .. tō haere-nga ki te tāone kimi mahi ai. (Karetu 1991:149)
your move-NOM to the town search work ai

.. your going to town to find work.

the underlying sentence has *koe* as the subject of both clauses:

1433a. Ka haere koe ki te tāone, kimi mahi ai.
TAM move you to the town search work ai

You will go to town to find work.

4.3.2.3.2 The verb of the location emphasis clause

Any verb that denotes action may act as the verb in the location emphasis clause (henceforth location emphasis verb). Both action intransitive and transitive verbs appear freely. Most common are action intransitive verbs such as *noho* ‘to stay’ (1434), and *takoto* ‘to lie down’ (1435):

1434 Haere koe ki te taha o te wai noho ai. (Grey 1928:46)
move you to the side of the water stay ai

Go to the water’s edge and wait there.

1435 Nā, ka pō, ka haere ia ki te punake o te ihu takoto ai.
so TAM night TAM move he to the forefront of the bow lie.down ai

So, when it was night, he went to the canoe's bow and lay down there. (Reedy 1993:91)

Haere ‘to come, go’ and other verbs of motion may also be location emphasis verbs. Chapin indicated that this was a construction found only in Māori language, ‘expressing the idea of

indefinite extension of motion referred to by the verb' (1974:289). He provided the following example, which has the form of the clauses discussed here:

1436 Puritia i te taha māui o Te Mangō-roa, haere ai.

Hold to the left of the Milky Way, and travel on.

There are ten such sentences in my database. I have both classical and modern examples from Ngāti Porou, Ngāti Toa, Tainui, and Te Whānau-a-Apanui. The following are classical examples:

1437 He whakateke nō ētahi o āna tamariki, oma ana ki rō ngahere
CLS trick belong some of his(pl) children run TAM to inside forest
haere noa atu ai.
move freely away ai

It was a trick some of his children played on him, running off into the forest, far away. (Reedy 1993:26)

1438 Nā, ka whiu-a te waka o ngā tāngata rā e te hau, ka tuku-na
well TAM blow-PASS the canoe of the(pl) people LOC by the wind TAM send-PASS
ki waho ki te moana nui haere ai. (Grey 1928:191)
to outside to the ocean large move ai

The wind blew the canoe of those persons, sending it far across the ocean.

Here is a modern example by Pei Te Hurinui of Tainui:

1439 Waiho i te taha katau o te rā, o te marama, o Kōpū rere ai.
leave at the side right of the sun of the moon of Venus sail ai

Let the sailing be to the right of the sun, of the moon, of the Morning Star. (Jones and Biggs 1995:15)

In these sentences the motion described by the *ai*-marked verb occurs in the specified location. Chapin's description arises as a result of the particular meaning of motion verbs, but in other regards location emphasis still applies.

Where the location emphasis verb is a canonical transitive, the direct object may be omitted when it is understood in context:

1440 E kore te kurī whai momo e ngōke ki tōna ruaki kai ai.
TAM NEG the dog possess health TAM crawl to its vomit eat ai

A healthy dog does not crawl into its own vomit to eat. (Mead and Grove 2001:36)

The object may be realised as a PP following *ai*:

1441 E noho koutou ki mua i te ahi whakamahana ai **i ō.koutou pona**!
TAM stay you at front at the fire warm ai ACC your(pl) knee

You can stay by the fire and warm your knees! (Mead 1999a:25)

It may also be incorporated into the verb in which case it is located before *ai*:

1442 I te tau i anga te tamariki nei ki konei, i haere mātou ki runga
at the year TAM set.out the children LOC to here TAM move we to upon
i ngā motu nā, tirotiro **tuatara** ai.
at the(pl) island LOC look tuatara ai

The year the children headed out here, we went onto the islands looking for tuatara there. (Matiu and Mutu 2004:138)

Of note is the observation that any verb in the location emphasis clause is always active in form, even where it is passive in meaning. In the following example, the subject of both clauses, *Te Arawa*, is the patient argument of both verbs:

1443 .. tō-ia ana a Te Arawa ki uta i Maketū tāwharau ai.
tow-PASS TAM PER Te Arawa to shore at Maketū cover.over ai

.. Te Arawa was towed to shore at Maketū and covered over. (White 1890a:504)

The prior verb is passive as expected, but the location emphasis verb is active in form. As an independent sentence, the verb would be passive:

1443a. I tāwharau-tia a Te Arawa i Maketū.
TAM cover.over-PASS PER Te Arawa at Maketū

Te Arawa was covered over at Maketū.

Compare 1443 with the following, where *tōna waka* is the subject (and patient argument) of two passive verbs:

1444 Ko tōna waka tō-ia ki uta, tāwharau-tia ake. (Grey 1928:48)
TOP his canoe tow-PASS to shore cover.over-PASS DIR

His canoe was dragged ashore; it was covered over.

Because the second clause in 1444 is not location emphasis the verb can be passive. In the following example, the second clause is location emphasis, and *patu* is active, even though its underlying subject (*tētahi*) is its patient:

1445 Ka kawe-a tētahi ki roto o te whare patu ai.
TAM carry-PASS one to inside of the house kill ai

One was carried into the house to be killed. (Reedy 1993:26)

In my corpus the location emphasis verb is active in form in every example where the patient is the underlying subject of the verb. Consultants rejected examples constructed with passive verbs:

1446 *Ka kawe-a ia ki roto o te whare patu-a ai.
TAM carry-PASS he to inside of the house kill-PASS ai

He was carried into the house to be killed.

4.3.2.3.3 *Reira* in the location emphasis clause

When the anaphor *reira* is the location referred to by *ai* the actual location will have been referred to earlier in the discourse. In the following example, *reira* refers back to *taua wāhi*:

1447 He puia i taua wāhi, ā, ka noho a Māhina-a-rangi i reira whānau ai.
CLS hot.spring at that place and TAM stay PER Māhina-a-rangi at there born ai

There was a hot spring at that place, and, Māhina-a-rangi remained there to give birth. (Jones and Biggs 1995:73)

There are also examples with *reira* included as part of the location emphasis clause where it appears to provide even greater emphasis to the already mentioned location. The following example shows the usual pattern:

1448 Me haere māua ki te ngahere, ki reira mahi ai. (Huia 1998:80)
TAM move we to the forest at there work ai

We should go to the forest, and work there.

Reira is located immediately before the *ai*-marked verb. In written text it is often separated from the prior clause by a comma, and a speaker would normally pause in this position. The usual preposition for *reira* is *ki* although *ko* is also possible for the Northern dialect, as in the following example:

1449 .. kua haere, kua moe atu i runga i tētehi o ngā motu nei, ā,
TAM move TAM sleep DIR at upon at a.certain of the(pl) island LOC and
i runga i a Tuputupungāhau, **ko** reira moe ai.
at upon at PER Tuputupungāhau at there sleep ai

.. we would go and sleep on one of these islands, on Tuputupungāhau. (Matiu and Mutu 2004:124)

It should be noted that this ‘reinforcing phrase’ is much more likely to be used by contemporary speakers. 20% of the modern corpus have *reira* included in the location emphasis clause, compared to less than 2% of the classical examples. The examples above are modern ones. The following classical example is also of this type:

1450 .. me mau ahau e koutou ki uta ki te tuawhenua ki reira patu ai.
TAM bring me by you to inland to the interior to there kill ai

.. you should take me inland and kill me there. (White 1890a:404)

4.4 Subsequent / Dependent action

There are some complex sentences that contain *ai* clauses that are similar in form to the clauses described in the previous section but which do not resume a location. Instead, the *ai* marked clause appears to be describing an action that occurs subsequent to a previous action. An example follows:

1451 Ka kite a Pito, patu-a iho a Titapu, tāpuke-a ai ki te tara o te whare.
TAM find PER Pito kill-PASS DIR PER Titapu bury-PASS ai at the wall of the house

When Pito discovered this, he killed Tītapu and buried him under the wall of the house. (Orbell 1992:130)

In 1451 there is no location in the prior clause, the *ai*-marked action depends on the prior action, and the *ai*-marked verb is passive. Compare this sentence to 1452 which has location emphasis and the obligatory location in the prior clause:

1452 Ka mau-ria ngā tūpāpaku ki roto ki te pā i Taumaha-aute, tanu ai.
TAM carry-PASS the(pl) corpse to inside to the pā at Taumaha-aute bury ai

They took the bodies inside the pā at Taumaha-aute to bury them. (Orbell 1992:58)

The following extract shows how *ai* appears to be used to indicate subsequent action in a narrative:

1453 Ka tonoa e Rangi a Te Aki, a Watiu ki waho, ki te whakarongo. Rokohina atu ngā hua o te papa, te inaho, te maru. Whakawarea tonu, **kai ai**.

Rangi sent Te Aki and Watiu out there to find out what was happening. They found the fruits of the earth, the inaho and the maru. They at once turned aside to eat them. (Tremewan 2002:30)

This use of *ai* appears to be rare in Māori. There are only 12 examples in my corpus of *ai* sentences that appear to be marking subsequent action. Some are by unknown authors and the rest by either Ngāti Kahungunu, Kai Tahu, or Ngāti Whātua. A Tūhoe consultant suggested that this construction is not widely used and it may be dialectal. The following is an example from a Ngāti Whātua manuscript:

1454 .. e kore taua iwi rā e eke i te waka, haere tonu ai i uta.
TAM NEG that people LOC TAM board ACC the canoe move still ai at land

.. that people did not board the canoe, they went on by land. (White 1890b:46)

Unlike location emphasis, there may be an overt subject in the *ai*-marked clause:

1455 Ka turi a Ruru, ka mea kia noho ki tōna pakokori – kei tākiri-tia
TAM deaf PER Ruru TAM say TAM stay at his deckhouse TAM open-PASS
e ngā tuākana, kite-a ai **tāna wahine**.
by the(pl) older.brothers find-PASS ai his woman

Ruru wouldn't listen, because he wanted to stay in his deckhouse – lest it would be opened by his older brothers and his woman discovered. (Orbell 1992:34)

The use of *ai* in 1451 is consistent with what Chapin termed a continuity particle, in which '*ai* can serve as a particle of narrative continuity, perhaps best glossed as "and then" ' (1974:287). He did not find examples from Māori but there are examples from closely related Polynesian languages. The following is a Rarotongan example (which uses *ei* in the place of *ai*):

1456 Tē 'aere nei te pā'ī ki Aitutaki, 'aere ati ei ki Māngarongaro.

The ship is going to Aitutaki, and then(ce) on to Penrhyn (1974:287).

A Rarotongan consultant confirms that *ei* marks subsequent action in this example. This example appears to be similar in form to the Māori examples given here.

I argue that for Māori, *ai* marking suggest more than simple continuity. In the Māori sentences above, and for all such examples in my corpus, the action in the *ai* clause occurs after, and is dependent, on a prior event. *Ai* alone marking could therefore be a dialectal variant on *ka .. ai* marking, described in the next chapter. *Ai* does not resume a specific NP in these sentences, but indicates the dependence of its clause on prior discourse. This is the function of resultative *ai.* It is described here because of its structural similarity to location emphasis.

4.5 Conclusion for resumptive *ai*

Resumptive *ai* is the term used for those cases where *ai* resumes a particular NP that had been previously referred to in the sentence. This occurs in relative clauses, in sentences with certain fronted adverbials, and in clauses that involve location emphasis.

Relative clauses

Resumptive *ai* is found in three types of relative clause, called the *ai* strategy, the possessive, and the fused relative clause. *Ai* is obligatory in all three unless its position is taken by either *ana* or a locative particle.

In *ai* strategy relative clauses, *ai* resumes an oblique NP in the relative clause that is the head of that clause. Such relative clauses are said to have been formed by the *ai* strategy. The *ai* strategy relativises on many roles, most typically location, time, reason, and means. The following relativises on reason:

1457 Koia te take i kite-a ai ahau i reira.
that.is the reason TAM see-PASS ai I at there

That's the reason I was seen there.

The sentence underlying the relative clause has the head as reason:

1457a. I kite-a ahau i reira i taua take
TAM see-PASS I at there for the reason

I was seen there for that reason

Where the subject is the head of the relative clause *ai* is not required and its inclusion is usually considered ungrammatical. An apparent inconsistency occurs in this stipulation when either resultative *ai* or habitual *ai* appears in a relative clause which does not normally require resumptive *ai*.

The possessive relative clause is a structure where the underlying subject of the relative clause is realised either as a possessive determiner or a possessive modifier of the head. This strategy is used to relativise on either direct object or obliques fulfilling certain roles such as location, source, goal, duration of an event, and occasionally reason and means. The following relativises on direct object:

1458 He ātaahua tāna waiata i tito ai.
CLS beautiful his song TAM compose ai

The song that he composed is beautiful.

In all examples of relativising on oblique phrases in my corpus the subject takes the possessor *o*. In the case of the object, all the examples in my corpus use the possessor *a*.

In a fused relative clause the underlying subject of the relative clause fuses with either *te* or Ø to become a substantival possessive. The resulting relative clause appears headless. The following relativises on the object of an experience verb:

1459 Kua rite ki tāna i hiahia ai.
TAM same to his TAM want ai

It was just like he wanted.

In all cases of fused relatives the possessive takes the *a* form.

Fronted adverbials

Resumptive *ai* resumes an adverbial that has been fronted for emphasis. Reason, time, means, and location are the adverbials that can be resumed by *ai* when located before the VP. A locative particle or *ana* are not alternatives to *ai* in marking the fronting of these adverbials.

Not all sentences with these adverbials located before the verb have *ai* marking. The TAM *ka* often marks the verb when *ai* is not present. The reasons for the choice between *ai* or *ka* marking have been explored. In clear cases where the focus is on the adverbial, such as with wh-type questions, *ai* is much preferred to mark the verb. In contrast, in clear cases of topicality, such as in contrastive statements, *ka* is the preferred choice. In other situations there appears to be little, if any, difference between these two constructions and the final choice may be down to speaker preference.

Reason adverbials are the most common of the fronted adverbials. Adverbial phrases initiated by *he* are *koia* are all marked by *ai* (except when a TAM precludes it). Typical examples follow:

1460 He aha koe i kōrero pēnā ai?
CLS what you TAM speak like.that ai

Why did you speak like that?

1461 Koia ahau i kōrero pēnā ai.
that.is I TAM speak like.that ai

That's why I spoke like that.

Nā reason phrases are usually clause initial, and the verb may have *ai* marking:

1462 Nā taku pukuriri i kōrero pēnā ai.
belong my anger TAM speak like.that ai

It was because of my anger that I spoke like that.

Only fronted future or past tense adverbials require *ai* to mark their fronting. Fronted future time phrases are introduced by either *ā*, *hei*, *mō*, or *ko*, with *mō* indicating intent. An example follows:

1463 Ā te Rāhina tae mai ai te ope.
at the Monday arrive DIR ai the group

The group arrives on Monday.

There is no TAM marking the verb. Fronted future time nominalisations are rare.

Fronted past time adverbials are introduced by either *i* or *nō*. For *nō* (which are always fronted) the VP has either *i* .. *ai* or *ka*. For *i* the VP has either *i* .. *ai* or one of a number of possible TAMs.

1464 I tērā wiki i tae mai ai te ope.
at that week TAM arrive DIR ai the group

Last week the group arrived.

Fronted past time nominalisations are common and occasionally the VP has *i* .. *ai.*

1465 I te tae-nga mai o te ope, i kai tahi ai tātou.
at the arrive-NOM DIR of the group TAM eat together ai we

When the group arrived we all ate together.

Means phrases are introduced by *mā*. They are often sentence initial, in which case the main verb is usually marked by *ai.* The structure of the VP is the same for all time frames. For 'route' and 'means of transport' the VP has *ai* alone:

1466 Mā hea te ope haere mai ai?
by where the group move DIR ai

How did the group get here?

For 'by means of' the VP has *e* .. *ai*:

1467 Mā te aha te mahi e oti ai?
by the what the work TAM completed ai

How did the work be completed?

Unlike the other adverbials, the alternate with *ka* is much less common. Means clauses, usually of the form *me pēhea* / *me aha* are also fronted for emphasis, and the main verb is obligatorily marked by *ai.*

Fronted location adverbials are less frequent that the others, and are often fronted without any special marking. Many examples have *e .. ana* in the VP which would preclude the use of *ai*. Examples with fronted location and *ai* marking are viewed as somewhat archaic nowadays:

1468 Hei konei ahau mahi tonu ai.
at here I work still ai

I will be here still working.

Ai appears to be included in those examples where the adverbial is closely associated with the verb, whereas *ka* is preferred to mark those adverbials which set the scene for the whole utterance. The force of this proposal is tempered by a lack of data.

Location emphasis

In this use resumptive *ai* resumes a specific location PP which is part of a prior clause. The most common structure has two verbal clauses juxtaposed as in the following:

1469 I haere te kōtiro ki waho, tākaro ai.
TAM move the girl to outside play ai

The girl went outside to play there.

The first clause, the prior clause, contains a verb capable of having a location as an adjunct (when verbal), and an overt location PP. The location emphasis clause has an *ai*-marked verb with no TAM marking and no overt subject. The *ai*-marked verb may be an action intransitive or a transitive verb. A canonical transitive verb marked by *ai* in this construction will always be active in form even where it is passive in meaning. *Ai* cannot be omitted from the sentence or replaced with any other particle and the sentence still retain its location emphasis meaning. The subject of the two clauses is almost always the same.

The prior clause may also be non-verbal. For nominalisations the location emphasis segment is unchanged and readily interpretable. There is also a particular non-verbal structure found in the narratives which emphasises both the subject and the location of the action. It has the following form:

ko subject + *ki* location + verb *ai*

1470 Ko Wiremu ki tana kāinga kai ai.
TOP Wiremu at his home eat ai

Wiremu was at home eating.

The location PP in all prior clauses is usually introduced by *ki* which marks it as a goal. For 'at rest' location either *ki* or *i* is possible, with *ki* more likely where there is a prior movement to the location. *I* is mainly found for enduring location.

A reinforcing phrase with *reira* may be found before the *ai*-marked verb to make it even clearer to the listener that location is being emphasised. This occurs more often in contemporary writing.

Subsequent / Dependent action

Ai can be used to indicate a dependent action. This use occurs in complex sentences where the *ai*-marked verb has no TAM and describes an action that logically follows a prior action. The *ai*-marked verb need not be active in form and a location is no longer an obligatory part of the prior clause. This use of *ai* alone in this way is not common and appears to be a dialectal variation of the 'dependent action' *ka .. ai* construction described in the next chapter. No NP is resumed in the *ai* clause. *Ai* makes a causal link between clauses, which is the function of resultative *ai*.

Chapter 5: RESULTATIVE *AI*

5 Introduction

In the last chapter the constructions where resumptive *ai* acts as an anaphor that resumes a specific NP in its clause were described. In this chapter the situations where *ai* acts as a general discourse anaphor by locating its clause in previous discourse will be described. In these constructions *ai* entails the clauses, emphasising a causal relationship between them. This is the function of resultative *ai*.

The uses of *ai* in this chapter are not determined by the syntax of the sentence, and consequently the inclusion of *ai* in these constructions is usually optional. However it is argued that its inclusion alters the meaning of its utterance. It is also notable that *ana* or a locative particle is not an alternative to resultative *ai*.

In Section 5.1 the use of *ai* in purpose clauses is described. In particular the difference between *ki te*, *kia*, and *kia .. ai* purpose clauses are explored in some detail. It is argued that the presence of *ai* in a purpose clause adds a 'for the specific purpose of' meaning to the clause.

In Section 5.2 dependent action clauses are described. Here it is argued that a combination of the marking of a verb with both *ka* and *ai* indicates that the marked action or state is dependent on some prior action, or that it can only occur at a previously specified time. *Ka* and *ai* combine to add an 'and then' or an 'only then' meaning to their clause.

In Section 5.3 result clauses are described. Here it is argued that *ai* is included in a result clause when a speaker wishes to emphasise the resultative nature of the clause.

5.1 Purpose clauses

5.1.1 Background

Four different purpose adverbials are described here, only one of which contains *ai*. First are those introduced by *hei* (or *hai*). These are mostly used to describe how an object or person is to be used for a particular purpose or to fulfil a specific role or function. In 1471 the *hei* segment of the sentence refers to the use of the spear:

1471 Kātahi ia ka haere ka tae ki tana tokotoko hei wero-wero.
then he TAM move TAM attain ACC his spear as stab-DUPL

Then he went and took his spear to stab with. (Biggs 1997:41)

Clauses introduced by either *ki te* or *kia* are used to describe the purpose for which some action was carried out. These are in a complementary distribution, the choice between them depending on the type of subordinate verb and whether the main and the purpose clauses have the same subject (a more detailed analysis follows, but this will suffice for now). In 1472 both clauses have the same subject and *ki te* introduces the purpose clause:

1472 Ka haere te tāne ki.te wero manu.
TAM move the man TAM spear bird

The man went to spear birds. (Orbell 1992:84)

In 1473 the two clauses have different subjects and *kia* introduces the purpose clause:

1473 E hika, haere mai kia hāpaki-na ake ō kutu.
VOC move DIR TAM catch.lice-PASS DIR your(pl) lice

Son, come here so that I can clean your lice. (Orbell 1992:104)

The final type of purpose clause involves *kia* but includes *ai* after the *kia*-marked verb. The reason why *ai* is included in these purpose clauses is addressed in Section 5.1.6. An example follows:

1474 Haere e oma kia puta ai koe.
move TAM run TAM escape ai you

Go, run in order that you may escape. (Mead and Grove 2001:52)

All four of these constructions occur freely in both classical and modern narratives. *Ki te* purpose clauses are the most common and represent around 40% of all purpose adverbials in narratives. *Hei* purpose adverbials make up around 30% of the total. Interestingly *kia* on its own (18%) is actually more common that *kia .. ai* purpose clauses (12%), despite most authors describing purpose

adverbials as containing both particles—Bauer for example claimed that '*ai* is inserted post-verbally in the vast majority of such cases' (1997:599).

Each of the four constructions is described below. For convenience *hei* is considered first, and *kia* .. *ai* last.

5.1.2 *Hei* purpose adverbials

There are 226 sentences in my database that contain *hei* introducing purpose. Of these, 115 are from narratives of the classical time frame, and 76 from modern. The construction appears to be used by speakers from all dialects in both time frames. *Hei* purpose adverbials do not co-occur with *ai*.

A *hei* purpose phrase may be the predicate of a non-verbal sentence:

1475 Hai whakahere ēnei ki tōna whare.
as sacrifice these for her house

These were to be sacrifices for her house. (Reedy 1993:26)

The following has a *ko*-fronted subject and a *hei* predicate which is clausal:

1476 Ko wai hei tiaki i tēnei parepare mō ngā tau e toru e tū mai nei?
FOC who as guard ACC this bastion for the(pl) year NUM three TAM stand DIR LOC

Who will guard this bastion for the next three years? (Biggs 1997:195)

Most *hei* purpose adverbials appear as the complement of a noun. In the following, the highlighted head noun is the subject of its main clause:

1477 Tuatahi ka tuhi-a e māua **he karere** hei pānui i te nūpepa.
first TAM write-PASS by us a message for publish at the newspaper

Firstly, we wrote an advertisement for publishing in the newspaper. (Biggs 1997:233)

The head noun may also be the object:

1478 Ka tango ia i **ngā tahā** e ono, hei whakatere mōna ..
TAM take she ACC the(pl) calabash NUM six as float for.her

She took six calabashes as her floats .. (Biggs 1997:107)

The head noun may be an oblique, usually in the role of time or location:

1479 Kua āta whakarite-a hoki e rāua i raurangi rā, **te wā**
TAM carefully plan-PASS EMPH by them at another.time LOC the time
hei haere-nga mai mō Hinemoa ki a ia. (Grey 1928:109)
for move-NOM DIR for Hinemoa to PER him

They had carefully planned at that other time a time when Hinemoa would come to him.

1480 Ka haere a Hoturoa ki.te tohutohu haere i **ngā wāhi** hei mahi-nga ..
TAM move PER Hoturoa TAM point.out move ACC the(pl) place for work-NOM

Hoturoa went and pointed out the places for plantations .. (Jones and Biggs 1995:53)

60% of my corpus of *hei* purpose adverbials have *hei* introducing a noun, which may be a common noun (1475), or a nominalisation (1480). A fairly common construction involves the subject of the verb *waiho* as the head noun, as in *ēnei* 'them' in the following:

1481 Me waiho mai ēnei hei koha māu ki a au hei utu ..
TAM leave DIR these as gift for.you to PER me as payment

Leave them as your gift to me, as payment .. (Biggs 1997:135)

The remaining 40% of *hei* purpose adverbials have *hei* introducing a verb. Transitive verbs are the only type of verb to follow *hei* in my corpus, and they are always active in form. The verb usually has its direct object following as a PP (1482) but it may be verb incorporated (1483):

1482 E whitu rātau i tohu-a hei pātaritari **i te taniwha**.
NUM seven they TAM select-PASS for entice ACC the monster

Seven of them were selected to entice the monster. (Mead 1999a:32)

1483 .. ka kore noa he tāngata hei tahu **kai** mā te manuhiri nei.
TAM NEG freely a person for cook food for the visitor LOC

.. there was no-one to cook food for this visitor. (Orbell 1992:49)

In the above examples the *hei* purpose adverbial always refers to the role or function of a specific NP. Some speakers use these adverbials to refer to entire VPs, as in the following (although my consultant preferred *ki te* in place of *hei*):

1484 Mehemea ka huri koe i tō āhua hei rapu hoa, kāore koe e pono
if TAM change you ACC your nature to seek friend NEG you TAM true
ki a koe anō. (Jones 2005:7)
to PER you EMPH

If you change your nature to find friends you will not be true to yourself.

5.1.3 *Ki te* or *kia*

Ki is a preposition with many uses in Māori. When *ki* introduces either purpose or complement clauses *te* is the only determiner that can follow it. Bauer argued that in these environments *ki te* was best viewed as a single particle although she did not view it as a TAM because she could find no instances of it occurring in independent sentences (1997:100). The single particle *ki te* is viewed as a TAM in this thesis. This follows Harlow, who provided examples of its use in sentences with *ko*-fronted subjects (2001:64). A textual example follows:

1485 Ko ētehi ki.te whakangau i ngā kurī.
TOP some TAM hunt with the(pl) dog

Some people made the dogs howl. (Biggs 1997:53)

The choice between *kia* and *ki te* to mark subordinate clauses has received considerable attention in the literature, notably by Hohepa (1969), Chung (1978), and Reedy (1979). These works generally agreed on two conditions required for the use of *ki te*:

- the subordinate verb must be active
- the main clause and the subordinate clause must have the same subject, (a 'same subject' sentence).

If these conditions were not met *kia* was used.

More recently Pearce and Waite have attempted to account for the selection of *kia* versus *ki te* 'through the use of structures which distinguish between unaccusative and non-unaccusative predicates' (1997:45)—an unaccusative verb is one which lacks an agent subject. In Māori, neuter verbs, experience verbs, and passives are unaccusatives according to this model. Negatives also conform as they are generally regarded as 'subject raising neuter verbs' (1997:50). Pearce and Waite concluded that *kia* is required when the subordinate verb is an unaccusative (whether the subject is overt or not), and that clauses with *ki te* do not allow overt subjects and their subject arguments are Caseless PROs (similar to the English infinitive). This work was attempting to account for the descriptions already provided by Reedy and others.

Bauer stated that *kia* must be used in all cases of different subject sentences, and also when 'the verb in the subordinate clause is an experience verb, a neuter verb, a negative, a state intransitive or a passive' (1997:618). Conversely, *ki te* is used in same subject sentences where the subordinate verb is either a canonical transitive or an action intransitive verb. However she further observed that where the main verb was ditransitive 'the rules fall short' and she was unable to determine what criteria apply (1997:619).

Harlow also commented on the choice between *kia* and *ki te* for marking subordinate clauses, stating that *ki te* should be used in same subject sentences when the subject is the agent of the subordinate verb, otherwise *kia* must be used (1996:41). He further noted that when the main verb is passive both *kia* and *ki te* were possible, provided the other conditions for *ki te* were fulfilled (2001:255).

It appears that the descriptions agree on the main details but differ where the main verb is ditransitive or passive. The criteria used when choosing between *kia* and *ki te* in purpose clauses will be reconsidered as part of the descriptions that follow.

5.1.4 *Ki te* purpose clauses

There are 128 sentences with *ki te* purpose clauses in my corpus deliberately selected from classical and modern narratives in roughly equal numbers. They are used by speakers of all iwi in both time frames. *Ki te* purpose clauses do not co-occur with *ai*.

Ki te purpose clauses always follow the main clause. Usually this is a verbal clause and all verb types which describe an action are found as the main verb, and they may be either active or passive. In the following, the main verb is passive:

1486 Ka karanga-tia he hui ki.te wānanga i te kaupapa nei.
TAM call-PASS a meeting TAM discuss ACC the matter LOC

A meeting will be called to discuss this matter. (Mead 1999a:22)

Occasionally the main verb is a neuter verb, e.g. *riro* ‘be gone’:

1487 Ko te tangata kua riro ki.te whakaatu ki ōna hoa i te ātaahua o tōna wahine.
TOP the man TAM gone TAM show to his friend ACC the beauty of his wife

That man had gone to tell his friends about the beauty of his wife. (Biggs 1997:65)

The subject of the main verbal clause is also the subject of the *ki te* purpose clause and is never overt in the purpose clause. Kupe is the subject of both clauses in the following:

1488 I haere mai a Kupe ki.te rapu i a Tuputupu-whenua. (White 1890b)
TAM move DIR PER Kupe TAM search ACC PER Tuputupu-whenua

Kupe came here looking for Tuputupu-whenua.

In those sentences where the prior segment is a nominalisation, the subject of the *ki te* purpose clause is the possessor of the nominalisation. In 1489 Tama-te-kapua is the *a*-possessor of the highlighted nominalised phrase and the subject of the purpose clause:

1489 I te pō tuarua **ko te haere-nga a Tama-te-kapua** ki.te whakataki
at the night second TOP the move-NOM of Tama-te-kapua TAM find
i te teina.
ACC the younger.brother

On the second night Tama-te-kapua set out to find his younger brother. (Biggs 1997:61)

Tama is the subject of both clauses in the corresponding verbal sentence:

1489a. Ka haere a Tama-te-kapua ki.te whakataki i te teina.
TAM move PER Tama-te-kapua TAM find ACC the younger.brother

Tama-te-kapua went to find his younger brother.

When the main clause is an actor emphatic the *nā/mā*-marked agent is the subject of the *ki te* purpose clause:

1490 Mā tōna wairua e haere mai ki.te whawhai?
for his spirit TAM move DIR TAM fight

Will his spirit come back to fight? (Orbell 1992:131)

Ki te purpose clauses are restricted to active verbs. I have found no examples with passive, neuter, or negative verbs marked by *ki te* in a purpose clause. Most common are canonical transitive verbs, making up 80% of my *ki te* corpus. The object of the subordinate verb may be omitted (1491), included as a PP (1492), or verb incorporated (1493):

1491 Ka haere anō rātou ki.te wero.
TAM move again they TAM spear

Then they went spearing again. (Reedy 1993:20)

1492 Ka haere tāua ki.te mau atu **i ōku kākahu**.
TAM move we TAM get DIR ACC my(pl) clothing

We came to get my clothes. (Whakatara 1892:79)

1493 Ka haere a Ruatapu rātou.ko āna tuākana ki.te tārai **waka**.
TAM move PER Ruatapu and his(pl) elder.brothers TAM fashion canoe

Ruatapu and his brothers went to adze out a canoe. (Reedy 1993:40)

The remaining 20% of the *ki te* corpus have *ki te* marking an action intransitive verb, e.g. *moe* 'to sleep':

1494 Ka pō, ka hoki ki te whare ki.te moe.
TAM night TAM return to the house TAM sleep

When it was night, she returned to the house to sleep. (Orbell 1992:169)

Very rare examples can also be found, in modern texts, where the experience verb *kite* ‘to see’ is found in a same subject purpose clause marked by *ki te*:

1495 Ka haere ia i reira ki.te kite i a Te Morenga ..
TAM move he from there TAM see ACC PER Te Morenga

He left there to see Te Morenga .. (Matiu and Mutu 2004:63)

Same subject purpose clauses with *kite* are usually introduced by *kia*:

1496 Ka haere mai a Tū-hourangi kia kite i a Kapu.
TAM move DIR PER Tū-hourangi TAM see ACC PER Kapu

Tū-hourangi came to see Kapu. (Jones and Biggs 1995:379)

The following, another modern example, has the experience verb *whakaaro* in a *ki te* purpose clause:

1497 Ka mutu, ka noho anō ki.te whakaaro.
TAM ended TAM sit again TAM think

When that was over they sat again and thought. (Mead 1999a:56)

My consultants generally prefer the TAM *kia* to introduce purpose clauses with *kite* but readily accept these examples. There are too few examples like these above to be sure whether this is a dialectal variation or speaker preference, although the seven examples I have located are mostly from Northern iwi. The use of *ki te* in this way may represent a change in the language.

In summary, the following criteria appear to apply for *ki te* purpose clauses:

- the subject of the main clause and the purpose clause should be the same
- the subject should not appear in the purpose clause
- the subordinate verb should be an active canonical transitive or action intransitive verb

At least for some contemporary speakers:

- the verb in the purpose clause may be an experience one, particularly *kite* ‘to see’

5.1.5 *Kia* purpose clauses

There are 78 sentences with *kia* purpose clauses in my corpus deliberately selected from classical and modern narratives in roughly equal numbers. There are examples from all iwi in both time frames. These particular clauses do not contain *ai*.

Just over half of the *kia* purpose clauses in my corpus have a different subject to that of the main clause. In different subject sentences the subject is usually overt in the purpose clause:

1498 E hika, haere mai kia hāpaki-na ake **ō** **kutu**.
VOC move DIR TAM catch.lice-PASS DIR your(pl) lice

Son, come here so that I can clean your lice. (Orbell 1992:104)

The subject may be omitted, especially when it is obvious in context:

1499 Kua tae mai ō taokete ki.te tiki mai i a tāua kia haere atu.
TAM arrive DIR your(pl) brother-in-law TAM fetch DIR ACC PER us TAM move DIR

Sir, your brothers-in-law have arrived to fetch us so that we will go. (Biggs 1997:51)

Kia is required in all sentences when the subordinate verb is a passive (1500), or a neuter verb (1501):

1500 .. ka puta ki waho kia puhipuhi-a e te hau.
TAM emerge to outside TAM blow-PASS by the wind

.. they went outside to be cooled by the fresh air. (Jones and Biggs 1995:95)

1501 Tapahi-a ki te toki kia hinga ki te wai. (Grey 1928:55)
cut-PASS with the axe TAM fall to the water

Cut him down with an axe so that he falls into the sea.

Where the subordinate verb is a negative the usual marking is *kia .. ai*. Rare examples with *kia* can be found:

1502 Ka karakiatia e ia kia kore a Tainui e uru mai ki roto
TAM pray-PASS by him TAM NEG PER Tainui TAM enter DIR to inside
i te moana o Whaingaroa.
at the sea of Whaingaroa

He prayed so that Tainui might not enter the Raglan Harbour Heads. (Jones and Biggs 1995:47)

It has been shown above that both *kia* and *ki te* can introduce same subject sentences where the verb in the purpose clause is an experience one. The following contain purpose clauses with the experience verb *kite* 'to see' marked by *kia* and *ki te* respectively:

1503 Ka haramai rātau kia kite.
TAM come they TAM see

They came to see her. (Biggs 1997:65)

1504 Me haramai koe ki.te kite i tō.mātou kōhanga. (Huia 1998:22)
TAM come you TAM see ACC our nest

You should come and see our nest.

In my corpus of narratives *kia* is used exclusively to mark all purpose clauses for *mōhio* 'to know'*, hiahia* 'to want'*, pīrangi* 'to want', *rongo* 'to hear'*, mahara* 'to remember' and *tūmanako* 'to hope'. Only in modern texts does *ki te* appear to be used to mark the experience verb *kite*, although the majority still use *kia*. The only other example where *ki te* marks an experience verb is 1497 for *whakaaro* 'to think'. It appears that experience verbs require *kia* although some contemporary speakers use *ki te*, particularly with *kite*.

For state intransitive verbs, the preferred marking for a purpose clause appears to be *kia .. ai*:

1505 Hoko-na he pōtae hou kia ātaahua ai koe. (Waititi 1985:39)
buy-PASS a hat new TAM beautiful ai you

Buy a new hat so that you will look beautiful.

Kia is used to mark state intransitives in imperatives and in time clauses, and it could be that *ai* is included to distinguish these from purpose adverbials. Examples with *kia* alone that appear to be purpose clauses can often also have an 'until' interpretation:

1506 .. ka takoto ngā waka rā ki te takutai, ka waiho hoki kia maroke.
TAM lie the(pl) canoe LOC at the shore TAM left also TAM dry

.. those canoes were left lying on the shore to dry out [until they dried out]. (Biggs 1997:141)

There are examples in both classical and modern texts that do not appear to meet the stated criteria for *kia* clauses. The following same subject sentence has an action intransitive verb in the *kia* purpose clause:

1507 Ka whakaara-hia ake e ia te hokowhitu **kia** haere mai ki.te patu
TAM lead-PASS DIR by him the army TAM move DIR TAM kill
i te taniwha nei.
ACC the taniwha LOC

He will assemble an army and come to kill this taniwha. (Mead 1999a:106)

Harlow's observation that where the main verb is passive both *kia* and *ki te* are possible for marking subordinate clauses (2001:256) could account for 1507. The following same subject sentence also has a passive main verb and a *kia* purpose clause with an active verb *paki* 'to strike':

1508 I whakahinga-ia e ia he rākau kia paki i te tāhuhu o te whare.
TAM fell-PASS by him a tree TAM strike ACC the ridgepole of the house

He felled a tree so that it touched the ridgepole of the house. (Orbell 1992:21)

It does appear that for same subject sentences with a passive main verb either *kia* or *ki te* may introduce the purpose clause. I have been unable to determine what criteria are used to chose between them, although the presence of other *ki te* segments in many examples appears to be a factor in favour of preferring *kia*.

Harlow's passive explanation can not account for the following same subject sentence which also has *tūtaki* in the *kia* purpose clause and an active main verb *puta*:

1509 Ka puta mai a Ngarue **kia** tūtaki ki a Te Porou.
TAM emerge DIR PER Ngarue TAM meet ACC PER Te Porou

Ngarue arrived to meet up with Te Porou. (Jones and Biggs 1995:319)

Nor is this verb idiosyncratic, as examples can be found of it in *ki te* purpose clauses:

1510 Ka haere a Pango ki.te tūtaki ki a rāua.
TAM move PER Pango TAM meet ACC PER them

Pango went to meet them. (Reedy 2001:38)

It may be of some relevance that *tūtaki* has *ki* marking its object phrase, a property of most experience verbs.

In summary, the following criteria appear to apply for *kia* purpose clauses:

- *kia* should be used when the subject of the main clause and the purpose clause are different
- *kia* should be used when the verb in the purpose clause is either passive or a neuter verb
- *kia* is preferred when the verb in the purpose clause is an experience verb

- *kia* is possible when the verb in the purpose clause is either a negative or a state intransitive, although *kia .. ai* is generally preferred
- *kia* and *ki te* are both possible when the subject of the main clause and the purpose clause is the same and the main verb is passive

5.1.6 *Kia .. ai* purpose clauses

5.1.6.1 Background

In this work *kia .. ai* purpose clauses are treated as a unique purpose clause that have a subtly different meaning to both *ki te* and *kia* purpose clauses. Some grammar texts have noted this.

Maunsell made a distinction between *kia .. ai* and *kia* purpose clauses. His observations are worth repeating here (1862:146):

> When kia is prefixed to a verb which is merely an explanation, or some other enlargement of the meaning of a preceding one, it will seldom take an ai after it. But when the *intention, cause etc.* are to be specifically denoted, then ai will be used. Thus in the following sentence: Haere kia kite, go to see, kite is a plainly natural effect of haere, and ai, therefore, is omitted. If, however, some unusual act is to be done that he might see, then ai, most probably, would be employed; thus e piki ki runga ki te rakau kia kite ai, climb up the tree that you may see. The distinction is the same as that between the two following in English - go AND see; climb THAT you may see.

Maunsell stated that 'a wrong use of this particle may often seriously misrepresent the meaning of the speaker' (1862:147). He indicated that in the following (with orthography changed), *ai* indicates to the listener that 'the blanket is to be given to the speaker not as a favour, or as due on other grounds, but simply as a *reward* for his *asking*' (1862:147):

1511 E inoi ana ahau kia hōmai ai tētahi paraikete.

I pray that I will be given a blanket.

Some grammars observed that *kia .. ai* indicated specific purpose. Hare Hongi stated that *kia .. ai* conveyed the meaning of 'in order to effect the desired object' (Stowell 1911:8). Smyth commented that 'ai is used in statements expressing the reason for which anything is done, or the object in view for doing it' (1943:153). Foster, who did not consider *kia* clauses, noted that *kia .. ai* clauses were used 'when we specifically speak of some action being carried out as a necessary step toward some other action or condition' (1987:163). Similarly, for Moorfield, '**kia** combines with **ai** to indicate that the action or state with **kia .. ai** is a result of the action in the main part of the sentence' (1988:99).

Bauer commented specifically on the role of *ai* when she argued that *kia .. ai* adverbials are 'semantically resultative' while those without *ai* 'express a variety of dependent relations'

(1997:129). She further observed that purpose clauses 'generally require *ai'* but that the 'patterns seem unclear' (1997:383).

Harlow only considered *ki te* and *kia .. ai* clauses (2001:244), although he did describe another purpose clause with a prescribed structure in which the purpose adverbial fronts the sentence:

1512 E oti ai tēnā mahi i te wā tika, me whakaaro ake he tikanga.

In order to finish that job in time, you must develop a plan. (2001:246)

This construction appears to be quite rare. I have located a textual example from a reported speech by Apirana Ngata, although the sense here is conditional:

1513 E mau ai te whenua, me āpiti te here a te ture.
TAM hold ai the land TAM supplement the bind of the law

If the land is to be retained, something must supplement the protection of the law. (Biggs 1997:193)

It appears that while most grammars included a description of *kia .. ai* purpose clauses, some had noted that *ai* indicates a special link between the action described in the main clause and the purpose adverbial.

In this work it is argued that the combination of *kia* and *ai* for marking the verb in a purpose clause is used when a speaker wishes to make a particular assertion about the relationship between the action described in the main clause and that in the purpose clause. In particular *kia .. ai* marking asserts that the prior action was carried out 'for the specific purpose' described in the purpose clause—what Williams has defined as 'an ulterior purpose' (1971:116 - kia meaning 3). If *ai* were deleted from a *kia .. ai* purpose clause the resulting sentence would still be grammatical, but the dependence between the actions would be weakened. Resultative *ai* indicates a causal dependence and the TAM *kia* 'in order that' (Williams 1971:116) indicates that the relationship between the clauses is one of purpose. In *kia .. ai* clauses resultative *ai* does not refer back to a specific NP but it is still anaphoric in the sense that it locates its adverbial in the previous discourse.

A textual example will illustrate this use of *kia .. ai*. In the following, the first italicised *kia* clause describes the immediate and obvious effect of the action in trampling the sand and the highlighted *kia .. ai* purpose clause indicates the specific purpose of all that precedes it in the utterance, including the *kia* adverbial:

1514 Ka takatakahia e ia te one *kia kinokino*, **kia maharatia ai nā te taua i tiki mai, i tāhae ngā ika**.

She trampled the sand so that it was all disturbed, and people would think a war-party had stolen the fish. (Orbell 1992:103)

The previous example suggests that a *kia .. ai* clause is more specific, more versatile, and more inclusive than other purpose clauses. The *kia .. ai* clause refers to all that comes prior to it in the sentence. In sentences that contain more than one type of purpose clause, a *kia .. ai* clause will always follow any others, and include them in its reference. In the following extract, from the description of a tangi, some people go to the river to wash their hands so that they can remove the tapu associated with death:

1515 Ka mutu, ka haere te nuinga ki te awa *ki te horoi i ō rātou ringa*, **kia noa ai rātou**. (Waititi 1985:21)

At the end, most went to river to wash their hands, so that they would remove the tapu.

In 1515 the first purpose clause is marked as expected by *ki te* and the last one is marked by *kia .. ai* despite being part of a same subject sentence. Note also the overt subject in the *kia .. ai* clause. In the following extract the *hei* purpose clause is also incorporated by the following *kia .. ai* clause:

1516 Ka tukua taua taura ki raro *hei rerenga mō rātou ki raro*, **kia tae ai rātou ki a Miru**.

That rope was let down as a means of descent for them, so that they could reach Miru. (Biggs 1997:133)

It is not unusual to have another purpose adverbial preceding a *kia .. ai* one in the same sentence. In total 15% of my *kia .. ai* corpus are like this.

5.1.6.2 The *kia .. ai* construction

This analysis is based on the 349 sentences in my *ai* database that have *kia .. ai* purpose clauses. Most are extracted from narratives, with 87 from the classical time period and 200 from the modern. The construction is widely used in both time frames by speakers of all iwi. The following Table contains the relative frequencies of all types of verbal purpose clause in both time frames from my corpus of narratives:

	Classical	Modern
ki te	59%	59%
kia	30%	22%
kia .. ai	11%	19%

Table 7: Relative frequencies of purpose clauses over time

While the frequency of *ki te* purpose clauses has remained constant, there has been an increase in frequency of *kia .. ai* and a corresponding decrease in *kia* purpose clauses over time. Modern authors appear to use *ai* more often in purpose clauses than their classical counterparts did.

Ai cannot be replaced by a locative particle or *ana* in *kia .. ai* purpose clauses. There are no examples in the narratives where a locative particle follows a *kia*-marked purpose clause verb. *Ana* does co-occur with *kia* in certain subordinate clauses, but these are not purpose clauses. The combination of *kia* with *ana* gives the clause a continuous aspect. These clauses commonly occur as complements to the verbs *tuku* 'to allow' and *waiho* 'to be left:

1517 Tuku-a tonu-tia e Ngāti Huarere kia haere ana.
let-PASS EMPH-PASS by Ngāti Huarere TAM move TAM

Ngāti Huarere let them pass. (Jones and Biggs 1995:133)

1518 He aha i waiho ai te manuhiri kia karanga ana? (Grey 1928:142)
CLS what TAM leave ai the visitor TAM call TAM

Why is the visitor left calling (for water)?

The deletion of *ai* from a *kia .. ai* purpose clause results in a grammatical sentence:

1519 Karanga-tia ngā tāngata katoa kia kī ai tōku whare.
call-PASS the(pl) people all TAM full ai my house

Call all the people so that my house will be full. (Foster 1987:163)

1519a. Karangatia ngā tāngata katoa kia kī tōku whare.

Call all the visitors to fill my house.

My consultant stated that the first utterance makes it clear that the visitors are being called specifically to fill up the house, whereas in the second utterance the filling of the house may be a consequence of the visitors being called but not the main reason for calling them. Although the

deletion of *ai* results in a grammatical utterance, it may change the meaning by weakening the causal relationship between the clauses.

Over 95% of the *kia .. ai* purpose clauses in my corpus are part of complex sentences. In almost all cases the purpose clause follows the main clause, whether that clause is verbal (1520) or non-verbal (1521):

1520 Kia pai tonu, kia mā, kia koa ai ngā ngākau o ngā kaituku.
TAM good EMPH TAM clean TAM glad ai the(pl) heart of the(pl) owner

He should be careful and clean so as to gladden the hearts of the owners. (Biggs 1997:237)

1521 Ko te whakaaro o Haki he mea anō kia pērā ai i hanga-a ai
TOP the thought of Haki a thing EMPH TAM like.that ai TAM make-PASS ai
e ia taua kupu poroporoaki raka kia pērā.
by him that word farewell LOC TAM like.that

It was Haki's intention that those words should bear that meaning for ulterior motives. (Parata 1892:95)

Very occasionally the purpose clause precedes the main clause. Bauer indicated that in these sentences the main verb also required *ai*, and she provided the following example (Bauer 1997:380):

1522 Kia mārama ai tana kite mai i ahau e mau ai au i te koti whero.

So that she will see me easily, I am wearing a red coat.

I have found very few textual examples of complex sentences initiated by *kia .. ai* purpose clauses, and none where *ai* marks the main verb. In the following, both from modern texts, *ka* marks the main verb (thus arguably blocking the use of *ai*):

1523 Kia tere ai te maroke o ngā rākau, ka hunuhunu-a e ia ki te ahi.
TAM fast ai the dry of the(pl) wood TAM singe-PASS by him with the fire

He singed the timber with fire in order to dry it quickly. (Jones and Biggs 1995:37)

1524 Kia kore ai e tomo-kia e te wai, ka here-a, ka puru-a te kōhao
TAM NEG ai TAM fill-PASS by the water TAM lash-PASS TAM plug-PASS the hole
i te kaha o te kupenga. (Huia 1999a:46)
by the rope of the net

So that it wouldn't fill with water, it was lashed, and the holes were plugged with rope from the net.

A small number of *kia .. ai* purpose clauses in my corpus are in the form of independent sentences. In such cases the reader must refer to a previous sentence for interpretation of the purpose clause. In the following extract, Te Puia is stating why she believes that Māori children should not attend Government schools and the second sentence, the *kia .. ai* purpose clause, refers the reader back to her rhetorical question:

1525 He aha te take o te tuku i ā mātau tamariki ki te kura? Kia pai ai tō rātau hoki mai ki te tāhae, ki te whānako? (Karetu 1991:98)

What is the point of sending our children to school? So that they can return better at cheating and stealing?

As a single sentence the above could be as follows:

1525a. Me tuku mātau i ā mātau tamariki ki te kura kia pai ai tō rātau hoki mai ki te tāhae, ki te whānako?

Should we send our children to school so that they can return better at cheating and stealing?

5.1.6.2.1 Non-verbal main clause

14% of my *kia .. ai* corpus have non-verbal main clauses. Some of these can be considered as 'pseudo-verbal' with *he* marking to give an habitual reading:

1526 Ko tā te tāne mahi he haere ki te pakanga kia ora ai tōna iwi. (Karetu 1991:60)
TOP of the man work a move to the war TAM safe ai his people

The man's job was to go to war so that his people would be safe.

The following is also pseudo-verbal:

1527 Koinei te pai o ēnei tū mahi, te mahi whakataetae - he pupuri
this.is the good of these type activity the activity competition a hold
i ngā taonga kia kore ai e tere ngaro. (Karetu 1991:74)
ACC the(pl) treasure TAM NEG ai TAM fast lost

This is the value of these activities, the competitions, holding on to the treasures so that they will not be quickly lost.

Others are unambiguously non-verbal. The following is a *he*-initiated possessive sentence with a *hei* purpose clause, and the *kia .. ai* clause refers to the entire preceding segment:

1528 He pukapuka ā.mātou hei tuhi i ngā kōrero, kia kore ai ia
CLS book ours(pl) for write ACC the(pl) story TAM NEG ai [it?]
e mau i a mātou.
TAM waste by PER us

We had books to write the stories in so that they would not be forgotten. (Moorfield 1992:31)

In the following, the main clause is a *nā* possessive non-verbal sentence:

1529 Nā rāua anō taua whakaaro kia rapu-a ai ngā tohunga pai hei mahi.
belong they also that idea TAM search-PASS ai the(pl) tohunga good for work

It was also their idea that superior tohunga should be found to do their work. (Bauer 1997:385)

In all the non-verbal examples above the subject of the purpose clause is different to that of the main clause. In most cases the subject is overt in the purpose clause unless it is obvious in context, as in 1527. The only example in my corpus where the subjects are the same is the following, and the main clause subject Tara-whata is resumed as a pronoun in the purpose clause:

1530 He mea karakia haere a Tara-whata i a ia kia kaha ai a ia te kau.
a thing karakia move PER Tara-whata ACC PER him TAM power ai PER him the swim

Tara-whata chanted a karakia as he went, to give him power to swim. (White 1890a:308)

There are also eight examples where the main clause is actor emphatic. In these sentences the subject of the purpose clause may be any NP present or implied in the actor emphatic. In 1531 the overt subject of the purpose clause is the *mā*-marked agent in the main clause:

1531 Mā ngā iwi katoa e kai, kia mate ai ngā iwi katoa,
for the(pl) people all TAM eat TAM dead ai the(pl) people all
kei ngā iwi o Tuere te mana, te atua.
at the(pl) bones of Tuere the power the supernatural

They would all eat the fish, and all of them would die, slain by the supernatural power of the bones of Tuere. (Reedy 1993:18)

In the following example, the subject of the purpose clause is the understood possessor of *ngā kanohi*:

1532 Mā koutou e wero ngā kanohi kia kore ai e kite.
for you TAM spear the(pl) eye TAM NEG ai TAM see

Your task is to spear his eyes so that he cannot see. (Mead 1999a:32)

5.1.6.2.2 Verbal main clause

86 % of my *kia .. ai* corpus have verbal main clauses. All types of verb are found in the main clause and the main verb may be active or passive. In the following, the main verb is a passive canonical transitive verb *whakapūpū-tia* 'to be piled up':

1533 Whakapūpū-tia mai ō mānuka kia kore ai e whati.
pile.up-PASS DIR your(pl) mānuka TAM NEG ai TAM break

Cluster the branches of the mānuka so that they will not break. (Mead and Grove 2001:423)

Action intransitives such as *haere* 'to go' are common as main verbs:

1534 Haere koe i te ara a Taihoa, kia tae ai koe ki Aua-atu.
move you at the road of Taihoa TAM arrive ai you at Aua-atu

Go by the road of By-and-by, arrive at nowhere. (Mead and Grove 2001:55)

The following example by Waititi has the state intransitive *moata* 'be early' as the main verb:

1535 Kia moata te haere ki te moe kia mau-ria ai kōrua ki te ngahere. (1985:39)
TAM early the move to the bed TAM take-PASS ai you to the bush

Go to bed early so that you can be taken to the bush.

Neuter verbs are rare as the verb in the main clause but my consultant provided the following example with *mahue* 'to be left':

1536 Kua mahue tana tāne i a ia kia ora ai ngā tamariki.
TAM abandon her husband by PER her TAM safe ai the(pl) children

She has left her husband so that the children would be safe.

Experience verbs as the main verb are also quite rare in the narratives.

5.1.6.2.3 The *kia .. ai* clause

All types of verb are found in the subordinate clause. The following has the state intransitive verb *tere* 'be swift' in the purpose clause:

1537 Ka ara te karakia a Taikehu mō ngā hoe kia tere rawa ai te haere a te waka.
TAM raise the spell of Taikehu for the(pl) paddle TAM fast EMPH ai the move of the canoe

Taikehu began his spell so that the canoe's progress would be swift. (Jones and Biggs 1995:35)

The following example has *kia .. ai* marking a neuter verb *mate* 'be killed':

1538 Heoi, ka huri a Ngāpuhi, karapoti-tia ana te pā kia mate ai te iwi i te hiakai.
then TAM turn PER Ngāpuhi surround-PASS TAM the pā TAM dead ai the people by the food

Then Ngāpuhi decided to surround the pā so that the people would die of starvation. (Clother 2002:101)

Kia .. ai marks a passive verb *uta-ina* 'to be loaded' in the following:

1539 Ka whāwhai mai tēnā waka, kia uta-ina ai ki runga o te waka.
TAM hurry DIR that canoe TAM load-PASS ai to upon of the canoe

That canoe hurried forward so as to load the log on the canoe. (Tremewan 2002:238)

Kia .. ai marks the canonical transitive *kai* 'to eat', which is followed by its direct object, in the following:

1540 E whai i muri i a Rehua, kia kai ai koe i te kai.
TAM follow at after ACC PER Rehua TAM eat ai you ACC the food

Follow after Rehua so that you may eat. (Mead and Grove 2001:50)

Experience verbs such as *mōhio* 'to know' also appear in *kia .. ai* clauses:

1541 Me tiki e koe i ngā rau o ngā rākau katoa, i ngā kiri,
TAM fetch by you [ACC?] the(pl) leaf of the(pl) tree all [ACC?] the(pl) bark
kia mōhio ai koe ki te āhua o te tōtara.
TAM know ai you ACC the shape of the tōtara

Fetch leaves from all the trees, and bark, so that you will know what the totara looks like. (Reedy 1993:35)

Negative purpose clauses are semantically more resultative than positive ones, and so *kia kore ai* is the usual pattern found. There are rare examples without *ai*:

1542 Ka tae koe ki runga ka huti koe i te taura, ka tapahi kia kore
TAM arrive you at above TAM pull you ACC the rope TAM cut TAM NEG
he ara hei eke-nga atu mō te iwi nei, kia pōauaua noa iho i konei
a path for climb-NOM DIR for the people LOC TAM confused freely down at this

When you arrive above, pull up the rope and cut it so the people have no means of getting up, will become confused .. (Biggs 1997:133)

The negative TAM *kei* 'lest' can also be used for negative purpose clauses.

1543 Ka karanga atu ngā tāngata kia tuku-a ngā ringa kei tahuri
TAM call DIR the(pl) people TAM release-PASS the(pl) hand TAM overturn
te waka, kīhai te wahine rā i rongo.
the canoe NEG the woman LOC TAM hear

The people called to her, saying she must let go her hands or the waka would overturn, but the woman wouldn't listen. (Reedy 1997:64)

Ai does not normally co-occur with *kei* although the following example shows the author using *ai* in the same way as it is used with *kia*:

1544 Engari, e kore rawa e tika kia āpiti-tia te aruhe ki te taha
but TAM NEG EMPH TAM right TAM place-PASS the fern-root at the side
o te kūmara, **kei** riri **ai** te kūmara, arā a Rongo-marae-roa.
of the kūmara TAM angry ai the kūmara that.is PER Rongo-marae-roa

But it is absolutely wrong to place fern-root beside kūmara, as this would anger the kūmara – that's to say, Rongo-marae-roa. (Reedy 1997:64)

In nearly 80% of the examples where the main clause is verbal the subject of the *kia .. ai* purpose clause is different to that of the main clause. In most cases the subject is overt in the subordinate clause as in 1545, unless it is obvious in context as in 1546:

1545 E hika, kāti rā kia mao-a he kai kia ora ai koe te haere.
VOC stop LOC TAM cook-PASS a food TAM good ai you the journey

Son, wait until I have cooked some food to sustain you in your journey. (Orbell 1992:85)

1546 E pā, me tīmata te whakamōmona i ngā poaka ināianei, kia whai kai ai
VOC TAM start the fattening ACC the(pl) pig now TAM possess food ai
mō te hākari. (Waititi 1985:57)
for the feast

Friend, fattening the pigs should begin now, so that there will be enough food for the feast.

There are 64 sentences in my *ai* corpus where the subject of the main clause and the *kia .. ai* purpose clause is the same. In just over half of these same subject sentences the subject does not appear in the subordinate clause:

1547 Ka pūrua te moko kia pango ai.
TAM duplicate the moko TAM black ai

The moko was done a second time to blacken it. (Mead and Grove 2001:180)

The subject may be resumed in the purpose clause as a pronoun, e.g. ***ia*** 'she' in the following:

1548 Ka tīmata te kuia nei ki.te tatau i āna kūmara tekau,
TAM start the old.woman LOC TAM count ACC her(pl) kūmara ten
kia mōhio ai **ia** kei reira tonu tana pūkai kūmara.
TAM know ai she at there still her heap kūmara

After a while she began counting her ten kūmara; this was a way of checking that the pile of kūmara was still there. (Mead 1996a:49)

In some same subject sentences the subject appears only in the subordinate clause:

1549 I tango pea i te ingoa Ngāti Hotu kia ora ai rātou ..
TAM take perhaps ACC the name Ngāti Hotu TAM live ai they

They perhaps took the name Ngāti Hotu so that they would be spared .. (Jones and Biggs 1995:57)

Most same subject sentences with *kia .. ai* purpose clauses meet the criteria for *kia* marking as described in Section 5.1.5. It does appear however that *kia .. ai* purpose clauses are more versatile in their application than the others, particularly when following imperatives. For example there are same subject sentences where the verb in the purpose clause is active, and would thus normally be

introduced by *ki te*. The following same subject sentence has *whakarongo* ‘to listen’ *kia .. ai* marked:

1550 Mau-ria au, kia mate atu i te kāinga, kia whakarongo ai au ki te haruru
take-PASS me TAM dead DIR at the home TAM listen ai I to the roar
o ngā tai o Tapuarata.
of the(pl) sea of Tapuarata

Take me so that I may die at home while listening to the surf at Tapuarata. (Mead and Grove 2001:290)

In same subject sentences *ki te* would normally mark *whakarongo* in the purpose clause:

1551 Ka tono-a e Rangi a Te Aki, a Watiu ki waho, ki.te whakarongo.
TAM order-PASS by Rangi PER Te Aki PER Watiu to outside TAM listen

Te Aki and Watiu were ordered outside by Rangi to listen. (Tremewan 2002:30)

The main verb in 1550 is passive and, as observed above, this may allow the use of *kia* for the purpose clause. However the following same subject sentence does not have a passive main verb (although it is an imperative), and the transitive verb *kai* ‘to eat’ is *kia .. ai* marked:

1552 E whai i muri i a Rehua, kia kai ai koe i te kai.
TAM follow at after ACC PER Rehua TAM eat ai you ACC the food

Follow after Rehua so that you may eat. (Mead and Grove 2001:50)

Same subject sentences would usually have *ki te* marking *kai* in their purpose clauses:

1553 Āe, i haramai ki konei ki.te kai i ā.tātau tamariki.
yes TAM come to here TAM eat ACC our(pl) children

Yes, it must have come here to eat our children. (Mead 1999a:22)

It is proposed here that *kia .. ai* is used in 1550 and 1552 because the action in the main clause was carried out specifically to achieve the result described by the purpose clause. This causal affirmation allows *kia .. ai* to be used in situations where *ki te* would normally be required to introduce the purpose clause. The imperative nature of the prior clause implies a specific purpose reading.

The same pattern is seen in same subject sentences where the verb in the purpose clause is an action intransitive. The following proverb has the action intransitive verb *tū* ‘to stand’ *kia .. ai* marked in the purpose clause:

1554 Kia kino te tahā, kia tū noa ai i te marae.
TAM bad the calabash TAM stand freely ai at the marae

Let the calabash be plain so that it can safely stand out on the marae. (Mead and Grove 2001:211)

Same subject sentences would usually have *ki te* marking *tū* in their purpose clauses:

1555 Ka puta a Rongo ki waho o te pā ki.te tū atu ki te hoariri ..
TAM emerge PER Rongo to outside of the pā TAM stand DIR to the enemy

Rongo emerged outside the pā to stand up to the enemy .. (Te Aranui 1896:103)

The following example also shows the same pattern, this time with *kia .. ai* marking the action intransitive verb *puta* 'to emerge':

1556 Haere e oma kia puta ai koe.
move TAM run TAM emerge ai you

Go, run, in order that you may escape. (Mead and Grove 2001:52)

These examples would also normally require *ki te*, but again *kia .. ai* marking is preferred by the author to emphasise that the main action occurred for the specific purpose described by the purpose clause.

The following extract describes the birth of Tawhaki, and the series of actions his parents carried out so that he would become fully human. The purpose of all prior actions is stated in the final purpose clause, a same subject *kia .. ai* clause which contains the action intransitive verb *tipu* 'to grow':

1557 Ka tipu haere te pēpi nei ā, ka hikitia e ōna mātua, ka waiatatia, ka mirimiria, ka romiromia, ka poipoia, ka whāngaia ki te waiū o ngā atua kia tipu ai hei tangata.

This baby grew and grew and his parents cuddled him, sang to him, stroked him, massaged him and cradled him to and fro. He was fed the milk of the gods so that he would grow up to be a fine man. (Mead 1996a:19)

The subject is often overt in the purpose clause in these types of sentences, which suggests that they have been marked by the author as being clearly different to *ki te* purpose clauses (where the subject is never included). Sentences such as these are not that common—around 3% of all the *kia .. ai* purpose clauses in my corpus.

Examples above support the proposal that *kia .. ai* clauses are used when a speaker wishes to assert that an action occurs for a particular purpose rather than a general one. *Ai* is not obligatory in these

sentences but its removal weakens the causal dependency between the clauses. In *kia .. ai* purpose clauses the function of *ai* is semantic rather than grammatical, adding the sense of 'for the specific purpose of' to its clause.

5.2 *Ka .. ai* clauses

5.2.1 Background

In this section, three constructions with verbs marked by both *ka* and *ai* are described. The first, called dependent action, occurs mainly in complex sentences in which the action described in the *ka .. ai* clause is dependent on and subsequent to a prior action. Many of these involve strings of imperatives. In the following example, the killing of the pigs (the *ka .. ai* clause) depends upon them being fattened up first (the prior clause):

1558 Whakamōmona-tia ngā poaka, ka patu ai mō te mārena. (Waititi 1985:64)
fatten-PASS the(pl) pig TAM kill ai for the wedding

Fatten up the pigs, then kill them for the wedding.

The second construction is where *ai* appears to be marking an adverbial located before the verb (these were introduced in Section 4.2.4). Here it is argued that in these utterances, in at least some cases, *ai* indicates a dependency between the action described by the main verb and the adverbial, and is thus another form of dependent action. In the following example, the victim being addressed is to be sacrificed for a new house and will only be killed when the house is completed:

1559 Kia oti rā.anō te whare, ka patu-a ai koe!
TAM finished finally the house TAM kill-PASS ai you

When the house is finished at last, that's when you'll be killed. (Reedy 1997:42)

The final construction has *ka .. ai* marking result clauses. These are rare, occur usually as independent sentences, and refer to previous utterances for their interpretation:

1560 Ka tokorua ai o te whānau e whāngai ana i a mātou.
TAM two ai of the family TAM adopt TAM ACC PER us

So there were two of the family who were bringing us up. (Pōtatau 1991:27)

Each of these constructions will be described below, following a review of the observations made on this construction in the grammar texts.

The specific combination of *ai* and *ka* has received no detailed analysis to date although reference to *ka .. ai* marking for imperatives in particular can be found. Maunsell observed that *ai* can indicate a sequence of actions and indicated that it 'might be translated by *and then, to,* and sometimes *but*' (1862:90). His text contained the following example, which is very similar in form to 1558 above, consisting of two juxtaposed imperatives:

1561 Haere, ka hoki mai ai.

Go, and then return. (1862:90)

Foster used the term ‘subsequent action’ to describe the *ka .. ai* construction, all of his examples being imperatives:

1562 Me whiu ia e ahau, *ka tuku atu ai*.

So, he had best be whipped by me, *released thereafter*. (1987:159)

Moorfield described *ka .. ai* as used ‘to denote that an action or state is consequent upon some previously stated action’ and he translated it as ‘and then’ (1989:50). Again, all his examples were imperatives:

1563 Haere torotika ki ngā raiti, ka huri whakakatau ai ki te tiriti o Miro.

Go straight ahead to the lights and then turn right into Miro Street. (1989:50)

Bauer observed that *ka .. ai* marking was used in imperatives, which she called a ‘special sub-group of dependent actions, because the fact that they are understood as imperatives is dependent on the first imperative, which is always a true imperative’ (1997:386). She also stated that the *ka .. ai* clause cannot follow a negative imperative, and cannot be followed by a direct imperative in strings of more than two imperatives (1997:545).

Harlow also described the *ka .. ai* construction for imperatives, noting that the *ka .. ai*-marked verb is always active in form, even where it is passive in meaning (2001:219).

Some grammars have also noted the use of *ka .. ai* in sentences with fronted adverbials.

5.2.2 The *ka .. ai* database

The following analysis is based on 188 sentences that have a verb marked by both *ka* and *ai*. Of these, 153 are extracted from narratives, which is all the sentences with *ka.. ai* marking in these narratives. There are roughly equal numbers from classical and modern texts.

There are no corresponding sentences in this database without *ai*. *Ai* cannot be deleted, or replaced by a locative particle or by *ana* in *ka .. ai* clauses, and the utterance retain its original meaning. A construction with *ka .. ana* does exist which is a time adverbial with the meaning of ‘when/ whenever’:

1564 Ka mutu ana te karakia a Tāwhaki ka rarapa mai te uira
TAM end TAM the prayer of Tāwhaki TAM flash DIR the lightening
i ōna kēkē.
from his(pl) armpit

Whenever he ended a prayer lightening flashed from his armpits. (Mead 1996a:77)

In the narrative set there are 106 sentences (70% of the *ka .. ai* corpus) that are clearly marking an action as dependent on a prior action or state. There are 31 sentences (20%) that have *ka .. ai* marking a main verb in a sentence with a fronted adverbial. Of these it will be argued that at least 23 are indicating that the action in the *ka .. ai* clause is dependent on the adverbial. In total 16 sentences (10%) are result clauses.

In the remaining four sentences *ka .. ai* marks a relative verb, which is rather unusual. All are from modern texts, relativise on time, and the relative clause describes an action that is dependent on the time, as the following extract shows:

1565 Ka whakahoki te whāea, 'Kia tino ngaro atu te rā, kia tō ki tua o te moana, kia tino kore e kitea ngā hihi o te rā, koinā te wā **ka hoki mai ai rātou ki te whare nei, ki te moe**.'

Their mother replied, 'When the sun has really disappeared and set beyond the ocean, when no rays of the sun can be seen, that's the time **they come back to sleep**.' (Mead 1996a:34)

It therefore appears that the *ka .. ai* combination is used by native speakers to express a particular form of dependency between the action and a prior segment of the utterance.

5.2.3 *ka .. ai* and dependent action

In this section the sentences where *ka .. ai* adds an 'and then' meaning to its clause are described. Most examples are imperatives but non-imperative examples do occur.

5.2.3.1 *Ka .. ai* in imperatives

There are 85 sentences in my corpus in which *ka .. ai* marks an imperative. There are 46 from classical and 27 from modern narratives. I have examples from most North Island iwi in both time frames. The following discussion is based on an analysis of this sub-corpus of sentences.

The construction has a predictable form. Consider the following proverb:

1566 Mātua whakapai i tōu marae, ka whakapai ai te marae o te tangata.
first clean ACC your marae TAM clean ai the marae of the person

Clean up your own marae before trying to do the same for someone else. (Mead and Grove 2001:288)

The complex sentence has two verbal clauses, a prior clause followed by the *ka .. ai* clause. Both clauses have imperative mood. The *ka .. ai* clause always follows a prior imperative. The verb in the *ka .. ai* clause is active in form even when it is passive in meaning. As an independent imperative the *ka .. ai* clause of 1566 would require a passive verb:

1566a. Whakapai-a te marae o te tangata!
clean-PASS the marae of the person

Clean up someone else's marae!

Consultants said that they would use this construction when wishing to emphasise that the first instructions must be followed before the instruction in the *ka .. ai* clause. The following extract shows how an author uses *ka .. ai* marking to indicate this dependence:

1567 Ka mea atu taua māia raka ki ōna hoa, 'Kaua e whakaohokia noatia; engari kia ngaro rawa te upoko ki roto ki te koromahanga nei me ōna peke, **ka** karanga atu **ai** au kia kumea atu, kia kumea mai'. (Grey 1928:14)

Then that hero said to his brothers, 'Don't show yourselves early, but keep hidden until the head and the limbs are completely inside this snare, then I will call out to haul in both sides of the net.

This extract is from the narrative in which Maui intends to trap the sun in a net. Maui is careful in his instructions to his brothers about the importance of the timing lest the sun should escape, and the 'and then' sense is indicated in his final instruction by *ka .. ai* marking.

Deleting *ai* from *ka .. ai* clauses, or replacing it with a locative particle or *ana*, often results in an ungrammatical or nonsensical sentence. Consider the following:

1568 Neke atu ki te wāhi hōhonu ka tuku iho ai ā.koutou kupenga.
move DIR to the place deep TAM release DIR ai your(pl) net

Move out to the deep place, then let down your nets. (Foster 1987:161)

With *ai* deleted or replaced the result makes no sense:

1569 * Neke atu ki te wāhi hōhonu ka tuku iho (nei/nā/rā/ana) ā.koutou kupenga.
move DIR to the place deep TAM release DIR LOC / TAM your(pl) net

? Move out to the deep place, and your nets will let down.

The nonsensical meaning arises because the verb in the *ka .. ai* clause is passive in meaning and the unmarked NP which follows it is actually its patient. Deletion of *ai* from *ka .. ai* clauses does not always produce an ungrammatical sentence. In the following, the underlying subject of the *ka .. ai* clause is the verb's agent:

1570 Patu-a te heihei, ka huhuti ai i ngā huruhuru.
kill-PASS the chicken TAM pluck ai ACC the(pl) feather

Kill the chook and then pluck the feathers. (Moorfield 1989:50)

When *ai* is deleted from this sentence the result is strictly grammatical:

1570a. ? Patu-a te heihei, ka huhuti i ngā huruhuru.
kill-PASS the chicken TAM pluck ACC the(pl) feather

Kill the chook and pluck the feathers.

One consultant stated that when *ai* is deleted from 1570 the first clause can no longer be an imperative:

1570b. I patu-a te heihei ka huhuti i ngā huruhuru.
TAM kill-PASS the chicken TAM pluck ACC the(pl) feather

The chicken was killed and the feathers were plucked.

It appears that logic requires the inclusion of resultative *ai* in a dependent imperative.

Most *ka .. ai* imperative clauses are found in complex sentences. Where a *ka .. ai* imperative clause appears as an independent sentence it refers to a previous sentence for its imperative interpretation. Consider the following extract in which a woman instructs her brothers to build a house:

1571 Ko te whare me hanga ki te motu. Ko ngā rākau tū tonu o te motu ngā pou o te whare. Ka tia ai ngā pakitara ki te rarauhe, me mānuka o roto. Ka hanga ai hoki i tētahi ara mōku hei rerenga atu mōku a te takiwā e tahuna ai te whare.

Build it in the bush with standing trees as its posts. Stick in bracken stalks as for walls, lined with tea-tree. And make a way for me to escape when the house is burned. (Biggs 1997:51)

Note that the third and fourth sentences are initiated by *ka .. ai* imperatives and describe actions which depend upon the successful completion of the prior instructions.

Where there are three or more imperatives in the string, it is usual that only the final imperative is marked by *ka .. ai*:

1572 Ko te toru o ō hokinga mai i te tuarongo, kei waho ahau o te tatau, māku e whakatuwhera te kuaha ka rere tika mai koe ki waho, ka tūtaki atu ai tāua i te kuaha.

The third time you go to the back of the house, I will be at the door, I will open the door, and you will jump right outside and then we will shut it. (Biggs 1997:63)

Ka .. ai imperative clauses refer to a previous imperative for their mood. Ordinary imperatives with passive verbs are the most common prior imperative:

1573 Hopu-kia te tuna, ka hoki ai ki te kāinga. (Waititi 1985:64)
catch-PASS the eel TAM return ai to the home

Catch the eel then return home.

Contrary to Bauer, prior imperatives with the TAM *me* also appear possible:

1574 Me hoe rawa ki waho rawa, ka hoki mai ai tātou.
TAM paddle EMPH to outside EMPH TAM return DIR ai we

We must paddle further out, and then we will return. (Reedy 1993:95)

Negative prior imperatives are also possible, but in my corpus this only occurs when they are followed by a *kia* 'until' complement which precedes the *ka .. ai* clause:

1575 Kaua e waiho kia tae tonu mai ngā whakamātautau, ka tīmata ai
NEG TAM leave TAM arrive EMPH DIR the(pl) exam TAM start ai
ki.te ako i ā.koutou mahi. (Waititi 1985:154).
TAM learn ACC your(pl) work

Don't leave it until the examinations arrive to start learning your work

A reasonably common construction in narratives involves an unmarked *waiho* 'be left' as the verb in the prior imperative, again with a *kia* 'until' complement:

1576 Waiho kia ahiahi ka haere ai tāua ki te riri.
leave TAM evening TAM move ai we to the battle

Leave it till evening then we'll go into battle. (Biggs 1997:87)

Taihoa 'wait' is often used in imperatives. My consultant provided the following example with *taihoa* as part of the prior imperative and again the *kia* 'until' complement was included:

1577 Taihoa kia oti, ka haere tahi ai tāua.
wait TAM finished TAM move one ai we

Wait until its finished then we'll go together.

In these last three cases *ai* is probably marking the *kia* initiated time adverbial.

Occasionally the future actor emphatic construction is found as a prior imperative:

1578 Māu e tohutohu ki te tohunga ō mate, ka ngau ai te tohunga
for.you TAM indicate to the tohunga your(pl) illness TAM bite ai the tohunga
i ō atua e ngau ana i tō kiri, te mamae i tō tinana.
ACC your(pl) god TAM bite TAM ACC your skin TAM pain ACC your body

You must indicate your ills to the tohunga, then the tohunga will devour your spirits that are devouring your skin, paining your body. (Reedy 1993:108)

The following example contains a *ka*-marked imperative:

1579 Ka mutu tā.tātau mahi, ka hoki-hoki ai koutou ki te kāinga.
TAM finished our work TAM return-DUPL ai you to the home

Finish our work, then you will go home. (Waititi 1991:109)

In the examples above the verb in the *ka .. ai* clause is always active, either a canonical transitive (1578) or an action intransitive (1579). The following example has an experience verb (*kite* 'to see') in the *ka .. ai* clause:

1580 Utu-a mai tō moni rēhita, ka kite ai koe.
pay-PASS DIR your money register TAM see ai you

Pay your registration fee and then you shall see. (Biggs 1997:241)

This is the only *ka .. ai* imperative clause in my corpus with an experience verb. It is from a modern narrative by Hirini Moko Mead. My consultant felt that, with the possible exception of *kite*, experience verbs should not appear in this construction. When presented with the following hypothetical example she corrected it by changing *ka* for *kia* to produce a purpose clause:

1581 Pānui-tia te pukapuka kia/*ka mātau ai.
read-PASS the book TAM/TAM know ai

Read the book so that you will understand.

She provided the following sentence to give the desired 'and then' meaning:

1582 Pānui-tia te pukapuka, kātahi anō ka mātau koe.
read-PASS the book then only TAM know you

Read the book and then you will understand.

Neuter verbs such as *riro* ‘be taken’ also appear to be incompatible with a *ka .. ai* clause in a string of imperatives. The following with *ka* was also rejected, but accepted as a purpose clause:

1583 Patu-a ngā tāngata kia/*ka riro ai te whenua.
kill-PASS the(pl) people TAM/TAM taken ai the land

Kill the people and take the land.

As noted above, the verb in the *ka .. ai* clause is in its active form, even where it is passive in meaning. In 1584 the subject of *tuku* ‘to release’ is *te punga* ‘the anchor’, which is the patient argument of the verb:

1584 Hua atu me hoe rawa ki te au o te moana ka tuku ai
think DIR TAM paddle EMPH to the open of the sea TAM release ai
te punga. (Grey 1928:15)
the anchor

One would think we should paddle to the deep sea and then let go the anchor.

The corresponding declarative sentence has the anchor as direct object:

1584a. Ka tuku tātou i te punga.
TAM release we ACC the anchor

We will let go the anchor.

There are 12 examples in my corpus similar to 1584. Sentences generated with a passive *ka .. ai* verb were rejected by my consultants. It is assumed that this is the form used by native speakers. It should be noted that it has been necessary to check original manuscripts as some editors appear to have changed the form of the verb in their texts.

In strings of imperatives *ka .. ai* marking adds the sense of ‘and then’ to its imperative. The *ka .. ai* marked imperative can only be attempted after obeying the prior imperative. *Ai* does not resume a particular NP in its clause but acts as an anaphor by relating its clause to a prior imperative. The construction is widely used and still productive.

5.2.3.2 *ka .. ai* in non-imperatives

Although the grammar texts generally described *ka .. ai* marking as limited to strings of imperatives, there are enough counter examples in the narratives to suggest that this is not always the case. Consider the following declarative sentence which contains a *ka .. ai* clause:

1585 E toru ngā piko e toe ana, ka eke ake ai te iwi o Hauraki.
num three the(pl) bend TAM remain TAM TAM arrive DIR ai the people of Hauraki

The Hauraki forces had three river bends to navigate before they would arrive. (Biggs 1997:253)

This sentence is from a narrative in which the Hauraki iwi travelled to a battle but arrived too late to take part. Again an 'and then' sense is added to its clause by *ka .. ai* marking. Although *ai* can be deleted from this sentence, my consultants prefer it included as it confirms dependency. A further example follows that also shows dependency between clauses:

1586 He kainga whakamutunga ka wehe ai i te ao.
CLS eat-PASS end-NOM TAM detach ai from the world

A last meal before leaving the mortal world. (Ngata and Te Hurinui 2005:325)

There are 36 similar examples in my *ai* corpus. Although the imperatives are more common, it is not difficult to locate non-imperative examples. Nine are from classical texts and 20 from modern, which is the reverse pattern of the imperative variety. There are examples from a wide range of iwi. A modern example follows:

1587 Nō reira ka haere atu ki Piako, ki Te Pareparenga; ā, ka tae ai
belong there TAM move DIR to Piako to Te Pareparenga and TAM arrive ai
ki Mirimiri-rau.
to Mirimiri-rau

From there they went to Piako, to Te Pareparenga, and then to Mirimiri-rau. (Jones and Biggs 1995:167)

The *ka .. ai* clause in these declarative sentences often describes an event which occurs as a culmination of a number of prior actions, as in the following extract:

1588 Tērā a Tūrongo kei te tatari kia hauhaketia tana kūmara, ā, kia mene mai i a ia ngā kai pērā i a Whatihua, **ka** karanga **ai** a ia kia haria mai a Rua-pū-tahanga.

Meanwhile Tūrongo was waiting for his sweet potatoes to be harvested, so that he would have food stored up like Whatihua, at which point he would send for Rua-pū-tahanga. (Jones and Biggs 1995:65)

As with imperatives strings, the verb in the *ka .. ai* clause is usually either a canonical transitive or an action intransitive verb. However unlike the imperatives, the verb may be passive. In the following classical example a passive verb is marked by *ka .. ai*:

1589 Ka pou-a te toko ki te puke tuatahi o te māra, me te kō,
TAM erect-PASS the pole to the hill first of the garden and the kō
me Penu, ka whakahua-tia ai te karakia.
and Penu TAM pronounce-PASS ai the prayer

The pole was placed in the first hillock in the field, along with the digging stick Penu, and then a karakia was recited. (Reedy 1997:70)

The following modern example also has a passive verb marked by *ka .. ai*:

1590 Ki ta.rātou whakarite me tuku a Manukaihonge me tana ope kia tae
to their plan TAM let PER Manukaihonge and his group TAM arrive
ki te wai, ā, kia hoki mai me te hari mai i ā rātou tahā wai,
to the water and TAM return DIR and the carry DIR ACC their(pl) calabash water
ka karapo-tia ai ki te huarahi.
TAM surround-PASS ai at the path

They planned to let Manukaihonge and his group reach the water and return carrying their calabashes of water and then surround them on the track. (Jones and Biggs 1995:133)

All examples in my corpus where the patient argument is the surface subject of the *ka .. ai* verb have the verb in its passive form. It appears that there is no barrier to using passive in the *ka .. ai* clause of a complex declarative sentence.

There are a few examples where *e .. ai* marks dependent action. There are too few to be specific about details, but all are future orientated, and usually a 'when' statement follows the dependent clause:

1591 E mōhio ai ngā tāngata kua haere mātou.ko taku iwi ki.te kimi
TAM know ai the(pl) people TAM move I.and my people TAM search
kāinga hōu mō mātou, ka mahue iho ko ngā kurī ki te kāinga.
home new for us TAM abandoned DIR TOP the(pl) dog at the village

The people will [then] know that my tribe and I have gone to look for a new home when only the dogs are left in the village. (Jones and Biggs 1995:175)

The following classical example also appears to be of this form:

1592 Engari, e koutou, e kata ai kia tomo atu au i te w[h]ero,
but VOC you TAM laugh ai TAM enter DIR I at the anus
puta rawa i te waha ..
emerge finally from the mouth

But you can laugh after I have entered the anus and come out the mouth .. (Reedy 1993:88)

In these sentences *ka .. ai* (and *e .. ai*) marking also adds the sense of 'and then' to its clause. The action is dependent on completion of prior actions. When *ai* is deleted from these declarative sentences the result may be grammatical but the dependence between clauses is lost or weakened. *Ai* cannot be replaced by a locative particle or *ana* and its clause retain its 'and then' meaning. This construction is still productive.

5.2.4 *ka .. ai* and fronted adverbials

There are 51 sentences with *ka .. ai* clauses which have an adverbial located before the verb. This marking is more common in classical texts, and there are examples from a number of iwi. *Ka .. ai* verb marking usually only occurs for fronted means and time adverbials.

For means adverbials the *ka .. ai* marking does appear not to add an 'and then' meaning, (although there is a causal link between the constituents):

1593 Mā te rau-hokowhitu ka oti ai.
by the hundred.and.fifty TAM finished ai

The two hundred and fifty will finish the job. (Mead and Grove 2001:287)

In these sentences *ai* appears to be marking the fronting, which is the function of resumptive *ai*. All examples are future orientated which may have encouraged the use of the TAM *ka*. Fronted means adverbials were discussed in Section 4.2.5.

Ka .. ai marking of the main verb is not uncommon in sentences with fronted future time clauses:

1594 Kia mutu te raruraru ka tika ai te whakakore.
TAM ended the trouble TAM correct ai the denial

Let the difficulties be got rid of before you object. (Kaa 1996:38)

The fronted adverbial may also be a phrase:

1595 .. hei te ngahuru pōtiki ahau ka whana atu ai.
at the autumn latest I TAM come DIR ai

.. at the end of autumn, that's when I'll arrive. (Tremewan 2002:64)

In these sentences *ka .. ai* marking indicates that the action is dependant upon the adverbial, adding an 'only then' meaning to its clause. Consider the following statement made by a warrior going into battle, who insists that food preparation wait until he returns:

1596 Kia mate rā.anō i a au tērā nanakia, ka mahi ai he kai.
TAM dead finally by PER me that monster TAM make ai a food

When I have killed the monster then the food can be cooked. (Orbell 1992:56)

Because fighting is a sacred activity it cannot be associated with ordinary items such as food, therefore an 'only then' interpretation for the *ka .. ai* clause is probable. In the following proverb dependence on the time adverbial is clear:

1597 Kia ea rā te mate ngarengare, ka puta ai ki mua whakapī ai.
TAM avenge LOC the defeat tyrannous TAM emerge ai to front dance ai

When defeat of the troublesome one is avenged, then one can dance in jubilation. (Mead and Grove 2001:209)

The 'only then' meaning is also evident in the following example:

1598 Kia maroke ka hari ai ki te ana tūpāpaku.
TAM dry TAM carry ai to the cave corpse

When dried out the remains are taken to the burial cave. (Ngata and Te Hurinui 2005:19)

The verb in the *ka .. ai* clause is in its active form even where its meaning is passive. In the previous example the underlying subject of *hari* is the patient NP:

1598a. Ka hari-a te tūpāpaku ki te ana tūpāpaku.
TAM carry-PASS the corpse to the cave corpse

The remains are taken to the burial cave.

In the following example, the passive nature of the verb *tuku* 'to send' is shown by the inclusion of an *e*-marked agent phrase, which can only occur with a passive verb:

1599 Kia tae rā ki te marae ka tuku ai e koe ō poroporoaki
TAM reach LOC to the marae TAM send ai by you your(pl) farewell
ki tō.tāua hoa, ki tō.tāua whanau-nga. (Karetu 1991:20)
to our friend to our born-NOM

When we arrive at the marae, then you can send your farewells to our friend, to our relative.

The only example with a passive verb in my corpus is from a narrative by Pita Kāpiti, and I am unable to account for its use here:

1600 Kia oti rā anō te whare, ka patu-a ai koe!
TAM finished finally the house TAM kill-PASS ai you

When the house is finished at last, that's when you'll be killed. (Reedy 1997:42)

Examples above have active verbs in the *ka .. ai* clause. Experience (1601) and neuter verbs (1602) are also possible in this particular construction:

1601 Ā te wā, ka kite anō ai au i tō koroua. (Huia 1999a:27)
at the time TAM see also ai I ACC your grandfather

In time I will also see your grandfather.

1602 Kia mahaki rā anō te Kauae-o-Poua, ka riro ai te whenua.
TAM loose finally the Jawbone-of-Poua TAM taken ai the land

When the jawbone of Poua becomes loose, then the land may be taken. (Mead and Grove 2001:213)

There are 29 sentences with fronted time adverbials and *ka .. ai* main clauses in my corpus. All are future tense. They occur more frequently in classical narratives and most of my examples are from Ngāti Porou and Kai Tahu iwi, with isolated examples from Ngāti Kahungunu, Ngāti Rauru, Ngāti Toa, and Ngāpuhi. This construction appears to be reasonably restricted in its use in classical times. It is still productive although not widely used.

There are rare cases of sentences with fronted reason phrases in which the verb has *ka .. ai* marking:

1603 Nō te tangi ka mātau ai a Rehua ko Kupe tēnei.
belong the cry TAM know ai PER Rehua EQ Kupe this.

From the lamentation Rehua knew that this was Kupe. (Grey 1928:25)

Whether *ai* marks the fronting of the adverbial or reinforces the dependence in this example is unclear. My consultant understands this utterance to mean that Rehua only recognised Kupe 'at that point in time', suggesting an 'only then' reading.

5.2.5 *ka .. ai* and result clauses

There are 16 sentences in my *ai* corpus which contain what appear to be *ka .. ai* result clauses. All but one are from modern texts. The following example is typical:

1604 Ka kite ai koe, e tama, kei tēnā iwi ōna taniwha, kei tēnā ōna taniwha.
TAM see ai you VOC son at that iwi his(pl) taniwha at that his(pl) taniwha

Therefore you can see, son, that each iwi has its own taniwha. (Karetu 1991:37)

This *ka .. ai* marking adds an 'and so' meaning to its clause, and the marked action is a result or outcome of some element of previous discourse. *Ka .. ai* result clauses are usually the main clause of a complex sentence:

1605 I whakapā katoa-tia mātou. Ka mōhio-tia ai he Mihingare au i taua wā.
TAM ordain all-PASS we TAM know-PASS ai CLS Anglican I at that time

We were all ordained. And so it was known that I was Anglican from that time. (Pōtatau 1991:39)

The following extract shows how Timoti Karetu used *ka .. ai* marking to indicate 'and so' type result in a narrative:

1606 Āe, he whanaunga ō tātau kei reira, arā, ko Mere rāua ko tana tāne ko Pari. Nā, ko Mere hei irāmutu māku; ko tōna whaea, ko Witōria, ā, ko Witōria hei taina ki a au. **Ka** kite **ai** koe ka noho kōkā a Mere ki a koe. (1991:151)

Yes, we have relatives there, Mere and her husband Pari. Now Mere is my niece; her mother is Witōria, and Witōria is my younger sister. So you can see that Mere can be like a mother to you.

Result clauses with *ai* are more commonly marked by *i .. ai* (described more fully in Section 5.3). The following extract contains both types of verb marking, showing the different tenses these TAMs bestow on their clauses:

1607 He tāngata anō i mōhio ki te mākutu, ka mate te matua, waiho iho ki tōna uri ana mākutu; koia **ka** mōhiotia **ai** he tangata mākutu, **i** mōhiotia **ai** he uri mākutu nō te tikanga iho a ōna tūpuna, tae noa ki ō rātou mātua; (Grey 1928:146)

When a person is skilled in magic, and the parent dies, he passes his magic on to his descendents; that's how a magic person becomes known, when it was known that they inherited magic, from their ancestors through their parents;

All types of verbs appear in *ka .. ai* result clauses. Passive verbs are allowed (1607), as are neuter verbs such as *mahue*:

1608 .. ka mahue atu ai ngā eka ki te raupatu e 887,808.
TAM remain DIR ai the(pl) acre at the confiscation NUM 887,808

.. so that 887,808 acres remained under confiscation. (Biggs 1997:211)

Ka .. ai result clauses appear to be used for describing an outcome that an actor is expected to be aware of. This construction is more common in modern texts and is used particularly by speakers from either the Tūhoe or Ngāti Kahungunu iwi, although consultants from other iwi did recognise it. The construction does not appear to be widely used.

5.3 Result clauses

5.3.1 Background

Ka .. ai result clauses were described in the previous section. This is one of several constructions available for expressing result in Māori. The following complex sentence ends in a result clause that is introduced by *nō reira* 'therefore' and has its verb marked by *i .. ai*:

1609 Ko te āhua kau o te waha i hanga, nō reira i mate ai.
TOP the form excl of the mouth TAM build belong there TAM dead ai

Only the appearance of a mouth was formed, and so it died. (Biggs 1997:55)

Where a result clause does not contain *ai*, a number of TAMs are possible, with *ka* being the most common:

1610 Nō reira ka nui te whawhai ki Hawaiki. (Grey 1928:54)
belong there TAM many the fight at Hawaiki

Therefore, there were many fights in Hawaiki.

Result clauses are quite common in both spoken and written Māori so it is surprising that they have received little attention in the grammars. It appears that only Bauer's text specifically mentions these clauses (1997:605):

> Clauses expressing result are introduced by *nā reira*, or *nō reira* 'by/from/belonging to that aforementioned place' which appear to be interchangeable variants in most instances, or *nā wai* 'by/from/belonging to whom'. *Nā wai* does not appear to have personal associations … The clauses introduced by these conjunctions most commonly have the TAM marker *ka*. If they use *i*, *ai* is inserted post-verbally.

Some grammars have described *nō reira* type clauses as reason clauses. Maunsell, for example, includes the following example in his section on 'reason' (1862:64):

1611 Nō reira i kino ai.

From that cause he was displeased.

It is useful to consider the difference between reason and result. The following, which was provided by a consultant, contains a fronted reason clause:

1612 Nā.te.mea i whakaoho-tia au i moata ai taku maranga.
because TAM wake-PASS I TAM early ai my arise

I got up early because I was woken up.

My consultant felt that this sentence emphasises the reason for getting up early. As in the example, a reason clause describes an action that occurs prior to that of the main clause, and the actions in the two clauses are logically connected. A reason clause is dependent on its main clause. Reason can typically be translated as 'because'.

The following example, from the same consultant, contains a result clause introduced by *nō reira*:

1613 I oho moata, nō reira ka haere au ki te mahi.
TAM arise early belong there TAM move I to the work

I got up early, and so (therefore) I went to work.

Results are actions that have occurred, i.e. they are said to be realised. Result clauses provide additional information to what is predicated by the main clause. Result is typically translated as 'therefore' and 'so'.

The following textual example is initiated by a *nā te mea* reason clause which is indispensable to knowing how Whare-tīpeti escapes:

1614 **Nā.te.mea kua pōuri mai te pō** i puta ai a Whare-tīpeti.
because TAM dark in the night TAM emerge ai PER Whare-tīpeti

Because it was dark, Whare-tīpeti escaped. (Jones and Biggs 1995:285)

From the same text is a sentence containing a highlighted *nō reira* result clause which gives supplemental information about what happens after Tupeteka has her period:

1615 E mate.wahine ana ia i taua wā, **nō reira i whero ai te kōhatu**
TAM menstruate TAM she at that time belong there TAM red ai the rock
i whakairi-a atu ai e ia tana maro.
TAM hang-PASS DIR ai by she her cloth

She was menstruating at that time and so the rock at which she placed her garment turned red. (Jones and Biggs 1995:145)

A result clause must always follow its referent. This contrasts with a reason clause which may precede the main clause (as it does in 1612). The action described in any result clause is thought to be supplementary to the main action and conceptually detached from the main action (Huddleston and Pullum 2002:783).

My consultant also provided a version of 1613 with *ai* marking:

1616 I oho moata ahau nā reira i haere ai ki te mahi.
TAM arise early I belong there TAM move ai to the work

Reasons for including *ai* in result clauses will be explored in Section 5.3.5.

5.3.2 The result clauses database

There are 181 sentences in my database that contain a result clause. 97 of these contain *ai* and another 84 have been deliberately extracted from the narratives as a comparison to the *ai* corpus. Of the *ai* corpus, 85 are from narratives with roughly equal numbers from both time frames. There are examples in both time frames from all iwi, suggesting that the construction is widespread in its usage and still productive.

5.3.3 Result clauses with *ai*

Result clauses that contain *ai* occur freely in both classical and modern narratives. An example follows:

1617 I whakamā anō, nō reira ia i wiri ai.
TAM shame EMPH belong there she TAM shiver ai

She was ashamed, and therefore she shivered. (Ngata 2000:129)

The form of the result clause is predictable. The conjunction *reira,* marked by either *nā* or *nō*, often introduces the clause, and the verb in the result clause (henceforth resultant verb) is *ai*-marked. In most cases the TAM *i* marks the resultant verb, although *ka* or *e* are also possible, particularly for some contemporary speakers. The result clause refers back to a previous clause for its interpretation, either in the same sentence as in the example, or across sentence boundaries to prior discourse.

The following extract shows how a native speaker used an *ai*-marked result clause in his narrative, in this case referring to the previous sentence:

1618 Kātahi anō ka kitea te tā o te kupenga. Ka mahue iho te kupenga nei, ka riro mai i a Kahukura hei tauira māna, ka akona e ia ki āna tamariki. Nā reira i mōhio ai ngā tūpuna o te tangata Māori ki te tā kupenga.

For the first time the weave of the net was discovered. The net was left behind, and Kahukura used it as a pattern, and taught it to his children. And this was how the ancestors of the Māori learnt how to make nets. (Orbell 1992:16)

Often in the written texts a result clause is separated from the main clause by a semi-colon, indicating its supplemental nature with respect to the main action:

1619 Heoi anō te mea i tangata kē ai nā tō rāua nei nanakia; nā reira i tangata kē ai.

The reason they were looked on as different people was because of their evil deeds; therefore [they were from] different people. (Raukatauri 1896:108)

All verb types are found in result clauses. The resultant verb in the following is an active canonical transitive verb:

1620 He pouaru tēnā, nō reira i kākahu ai i tōna pare.
CLS widow that belong there TAM wear ai ACC her headband

She is a widow; therefore she wears her (widow's) circlet. (Stowell 1911:199)

The resultant verb in the following is passive:

1621 Nā reira hoki i inu-mia ai e Mere ngā pua o te 'hutukawa
belong there also TAM drink-PASS ai by Mere the(pl) fruit of the pohutukawa
whakamarumaru o ngā taniwha.
shelter of the(pl) taniwha

And so it was that Mere drank of the nectar of the pohutukawa of the taniwha. (Biggs 1997:47)

Neuter verbs, such as *riro* 'to be taken', may act as a resultant verb:

1622 Ko te teina ia he wahine āhua pai, nō reira i riro ai
TOP the younger.sister she CLS woman quite handsome belong there TAM taken ai
te tāne i a ia. (Grey 1928:117)
the man by PER her

The younger sister was a beautiful woman, and so she took the man as a husband.

In this sub-corpus, *i .. ai* usually marks the resultant verb. *Ka .. ai* marking, described in Section 5.2.5, appears to be possible for some contemporary speakers. Interestingly, none of the result clauses with *ka .. ai* marking are introduced by *nā/nō reira.* The following is typical:

1623 Engari ka whiwhi ai i konā ka whiwhi-a me Te Kupenga a Kupe.
but TAM entangle ai at there TAM entangle-PASS with The Net of Kupe

And so they [the rocks] were ensnared there and caught up with Kupe's Net. (Matiu and Mutu 2004:47)

Where the negative *tē* 'not' precedes the resultant verb there is no TAM:

1624 Nō reira au tē haere atu ai.
belong there I NEG move DIR ai

Therefore I would not go. (Stowell 1911:66)

Nā/nō reira is included in more than half of the result clauses in the *ai* corpus. Both *nā* and *nō* occur freely in classical texts whereas *nā* is much more common in modern ones. As observed by Bauer, there appears to be no discernable difference between the choice of preposition to introduce *reira* (1997:605). In my database most authors appear to have a definite preference which they use exclusively. Te Rangikāheke is one who uses both, and there is no obvious reason for his selection of different prepositions in the following examples:

1625 Nā reira anō i waiho ai ēnei rākau e te tangata Māori
belong there EMPH TAM remain ai these tree by the people Maori
hei kauati. (Grey 1928:19)
as fire.starter

Therefore these trees remain to be used by the Maori people as a fire starter.

1626 Nō reira anō i ngaro ai tētahi wāhi o te whenua. (Grey 1928:5)
belong there EMPH TAM disappear ai a part of the land

Therefore some part of the land disappeared.

The subject of the result clause is usually located after the VP as in 1626. It may be located before the VP, especially if it is relatively 'light', and this is the preferred position for a pronoun subject:

1627 .. nā reira rāua i tino kī ai ..
belong there they TAM very say ai

.. therefore they truly could say .. (White 1890a:410)

Nā/no reira is not essential to the result clause. There are 37 sentences in my *ai* corpus that have result clauses that are not initiated by *nā/nō reira*. As observed above, some of these involve *ka .. ai* marking which does not appear to co-occur with *nā/nō reira*. There are also 22 examples with *i .. ai* marking the resultant verb. The following modern example contains the particle *nā* which indicates the resultative nature of the utterance:

1628 Nā, i tū ai Ngāti Kahu i runga i wēnei takiwā ..
and.so TAM remain ai Ngāti Kahu at upon ACC this area

And so Ngāti Kahu remained in this area .. (Matiu and Mutu 2004:36)

This example, despite the absence of *nā/no reira*, is clearly resultative. My consultants felt that *nā/nō reira* could be inserted before the highlighted result clause in the following textual example with no change in meaning:

1629 Kāore hoki i kō pēnei i te tūī, **i kī-ia ai taua manu he kōkō**.
NEG EMPH TAM coo like.this ACC the tūī TAM say-PASS ai that bird a kōkō

Nor did it coo like a tūī, hence its other name, kōkō. (Mead 1999a:33)

It does not appear that a locative particle or *ana* can replace *ai* in result clauses. A search of all classical and modern narratives in my corpus located only one example in which there was a locative particle following the verb in a result clause. It is from a Kai Tahu manuscript, and *i* alone marking for result clauses is not uncommon for this iwi:

1630 **Nō reira i** mahara **nei**, ko te tangata rawa anō i runga nei.
belong there TAM know LOC EQ the person very EMPH from above LOC

So then she realised that he really was that notorious person from the world above. (Tremewan 2002:77)

5.3.4 Result clauses without *ai*

Result clauses without *ai* occur freely in both classical and modern narratives. Bauer stated that *ka* alone was the most common pattern for marking the verb in a result clause (1997:384). My observations suggest that the situation is somewhat more complex, having varied over time. The following Table contains the occurrences of each TAM in 200 result clauses found in sentences from both classical and modern narratives:

		Classical	Modern
TAM	**i/ka .. ai**	48	15
	ka alone	40	73
	other	12	12
	Total	100	100

Table 8: TAMs and result clauses

The use of *ai* was clearly more common in classical texts than in modern, where *ka* marking prevails.

When the conjunction *reira* is used to introduce the result clause there is also a preference in preposition. In classical texts both *nā* and *nō* were commonly used for result clause both with and without *ai*. In contrast, for modern texts *nā* is much preferred for *ai* and *nō* for non-*ai* result clauses.

The most common TAM in non-*ai* result clauses is *ka*:

1631 Engari ko taua tangata he horo ki.te oma, nā reira **ka** ngare-a ko ia
but TOP that man CLS fast TAM run belong there TAM send-PASS EQ he
hei karere.
as messenger

But that man was a swift runner, and so he was sent as messenger. (Biggs 1997:51)

The TAM *i* may also be found in non-*ai* result clauses. The following, from a Kai Tahu manuscript, has *i* alone marking the resultant verb:

1632 Nō reira **i** mataku a Tāne, kāhore **i** kai, tū tonu.
belong there TAM afraid PER Tāne NEG TAM eat stand still

Therefore Tāne was afraid and would not eat, he just left it standing there. (Tremewan 2002:28)

Certainly *ai* is preferred where the TAM marking the resultant verb is *i*, but there are enough examples such as 1632 to suggest that its inclusion is optional, at least for some speakers. I have twelve examples which are mainly from Kai Tahu iwi, but there are single examples from Tūhoe, Ngāti Porou and Ngāti Rangiwewehi. Another example follows:

1633 Nā reira i hōmai te moana, nā te hau.
belong there TAM give the sea belong the wind

And so the sea came, driven by the wind. (Tremewan 2002:64)

As with *ai* result clauses, all verb types are found in non-*ai* result clauses, and passive verbs are common:

1634 Nō reira ka tao-na te toa, ko te uwha i waiho.
belong there TAM cook-PASS the male TOP the female TAM left

He therefore cooked the male, and left the female. (Tremewan 2002:2)

Other TAMs marking the resultant verb are *me* (1635), and *e .. ana* (1636) (both of which do not co-occur with *ai*):

1635 Nō reira me tino tūpato tātou katoa.
belong there TAM very careful we all

So we must be extremely careful. (Mead 1996a:43)

1636 Nō reira e whanau-nga ana ngā tāngata o runga i a Tokomaru
belong there TAM born-NOM TAM the(pl) people at upon ACC PER Tokomaru
ki a Hoturoa mā.
to PER Hoturoa &.others

Therefore the Tokomaru people are related to the Hotorua's people. (Jones and Biggs 1995:49)

5.3.5 The *ka* or *ai* form?

Most result clauses do not contain *ai* and consultants could not readily account for its inclusion. Analysis of the narratives proved problematic as few authors in my corpus use both forms. However for those that do, it appears that whether the event in the result clause is discourse old may be motivating. Consider the following extract from a narrative by Mohi Ruatapu:

1637 Ka kangā e Te Awariki ngā tamariki a Tuere rāua [ko] Tangihaere, he kakenga nō ngā aho o ā rātou manu i runga i tā Te Awariki. **Nā reira i** kangā **ai** e Te Awariki.

Te Awariki cursed the children of Tuere and Tangihaere because the lines of their kites mounted up over the line of his kite; therefore he cursed them. (Ruatapu 1966:18)

The result clause action is already part of the discourse, and is marked by *ai*. In the following extract by the same author the result clause describes a new event and is marked by *ka*:

1638 Tukua rawatia, ka eke ki te taunga, ki Karanga-tū. Ka tukua e Te Awa-riki ki Te Apū-tahi-a-Pawa, ka mate taua iwi, mate katoa.
Nō reira ka tangi a Ue-roa ki tōna iwi.

It was taken right away, out to the fishing ground at Karanga-tū. Then Te Awa-riki sent out Te Apū-tahi-a-Pawa, and those people died; all of them died.
So Ue-roa wept for his people. (Reedy 1993:59)

Other examples from Ruatapu's writings showed this distinction. Analysis of a Te Rangikāheke manuscript also revealed the same pattern. In the following extract the result clause describes a new event and is marked by *ka*:

1639 Heoi wehea ake ērā tokorua, marara ana ki te wai, ki uta; **nō reira ka** mau tonu he pakanga a Tangaroa ki a Tāne, ā, Tāne hoki ki a Tangaroa, mō te omanga o ngā tamariki a Tangaroa ki uta. (Te Rangikaheke 1857:5)

Hence these two races of beings separated, one going to the sea, and one going inland. Therefore Tangaroa still wages war on Tāne, and Tāne, in return, wages war against Tangaroa, because of the flight of Tangaroa's children inland.

From the same manuscript is an extract in which a result clause describes a discourse old event which is marked by *ai*:

1640 Ko te wāhi i rapu ai ia i ngā karakia nei kia whakahokia iho ōna tuākana hei kai māna. He karakia anō hoki mō Tāwhiri-mātea, he tūā mō te rangi. He karakia anō mō Papa-tūā-nuku, kia noa katoa ai i a ia rātou. **Nō reira i** rapua **ai** e ia he tikanga karakia māna. (Te Rangikaheke 1857:5)

The reason why he sought out these incantations was so that his brothers might become his food. There were also incantations for Tāwhiri-mātea for fair weather. There were also incantations for Papa-tūā-nuku, so that they would all be under his control. That's why he sought authority over incantations for himself.

Extracts from a South Island narrative also appeared to use *ai* in this manner. In 1641 the result clause describes an action that is discourse old and *ai* marked, whereas in 1642 the resultative action is new:

1641 Ka mate tōna matua, a Tūtaka-hinahina. Ka kūtia ngā pō. Kāhore ia kia mārama. **Nō reira i** pōuri **ai** te rangi, me te whenua, me te moana.

When Tūtaka-hinahina died, the nights were closed off. There was no light at all, so the sky and the earth and the sea became dark. (Tremewan 2002:2)

1642 Ka tata te pō, e tiaki ana i ngā pō roroa. Ka karanga tērā ki ngā tāngata, 'Kia rongo koutou i te pōuritanga!'
Kāhore ia i mārama. **Nō reira ka** taona te toa, ko te uwha i waiho.

Night drew near, and he kept watch through the long nights. He called to the people, 'Listen, all you who are in darkness!'
For it was not light. He then cooked the male maggot, and the female he left there. (Tremewan 2002:2)

Not all authors appear to make this distinction. The two following extracts are from the writings of Timoti Karetu. Both have result clauses that describe new actions, yet the verb marking differs:

1643 I te wā o te Pakanga Tuatahi kāore ia i whakaae kia haere ngā tama tāne o Waikato, **nā reira i** haere mai **ai** ngā Pākehā ki te tiki mai i aua Māori rā, ka hari ki te whare herehere. (Karetu 1991:98)

At the time of the First World War she didn't agree that the young men of Waikato should go, and so the Pākehā came to fetch those Māori and take them to prison.

1644 Heoi anō kāore ngā tungāne o Puhiwahine i pai ki te whaiāipotanga o te wahine nei ki tana whanaunga, **nā reira ka** tikina mai e rātau tō rātau tuahine, ka whakahokia ki roto o Ngāti Tuwharetoa. (Karetu 1991:117)

Well Puhiwahine's brothers did not approve of this woman's affair with her relative, so they fetched their sister, and returned her to Ngāti Tuwharetoa.

In many cases in the classical texts *ai* is part of a result clause that describes an event that is already known to the reader, whereas a non-*ai* result clause introduce a new event. This pattern is not as evident in modern texts, where discourse analysis had proven inconclusive. Consultants largely felt that the constructions with and without *ai* are reasonably interchangeable, and could not consistently account for the differences in verb marking.

5.3.6 Resultative *ai* and 'cataphoric reference'

A construction is described here where a reason follows an *ai*-marked clause which is reiterating a previously stated outcome. The construction has an 'and so .. because' meaning and is quite common in narratives. In this construction *ai* links the previous action to the reason adverbial that follows it (hence the term cataphoric). However it is still anaphoric because in all cases it refers to previous discourse for its full interpretation. The following extract, with the relevant *ai* highlighted, will demonstrate:

1645 Ka ū ki Ahuahu; i tapā **ai** tērā ingoa, Ahuahu, nō te ahuahutanga a Paikea i te onepū hei whakamahana mōna, ka huaina ko Ahuahu.

When he came ashore at Ahuahu it was given that name, Ahuahu, because Paikea heaped up the sand to warm himself; it was pronounced Ahuahu. (Reedy 1997:35)

The form is predictable. The topic is continued by the *ai*-marked clause and a reason adverbial follows. In the example above a place called Ahuahu is being discussed. The naming of this place is marked by *ai* and this is followed by the reason why it was given that name, an adverbial introduced by *nō*. Consultants confirm that *ai* refers to the reason and to the landing at Ahuahu. Some suggest that although *ai* can be deleted from this sentence it seems incomplete without it.

In the following example, the reason the people knew where to paddle to is explained in the *nō te mea* reason clause, and resultative *ai* follows *hoe mai*:

1646 I hoe mai **ai** aua waka nei ki konei, nō.te.mea kua kite-a ake
TAM paddle DIR ai those canoes LOC to here because TAM find-PASS DIR
e ia i mua. (Grey 1928:59)
by him at past

So those canoes paddled here because it had been discovered by him in the past.

When presented with this sentence a consultant wanted to know what came before in the narrative, as *ai* would be 'linking that to the reason'. Indeed the previous sentence in the narrative contains a description of the journey:

1647 I haere mai a Ngahue ki tēnei motu, i kite-a ai. (1928:59)
TAM move DIR PER Ngahue to this island TAM find-PASS ai

Ngahue came to this island that he had discovered.

In the following example the reason for their luck is given in a separate sentence:

1648 I waimarie ai rātou nā to.rātou pae-nga atu ki te taha ki uta
TAM lucky ai they belong their perch-NOM DIR to the side to inland
o te toka. Ko ngā ngaru i tētehi whaitua e pa-paki mai ana.
of the rock EQ the(pl) wave at a side TAM slap-DUPL DIR TAM

They were fortunate in grounding against the inland side of the rock. The waves were pounding against the other side. (Jones and Biggs 1995:37)

An important observation about this construction is that the majority occur at the conclusion of the narrative. The following exemplifies:

1649 I whakahoki-a mai **ai** te wahine nei, ko tōna matua tētehi kaupapa
TAM return-PASS DIR ai the woman DIR EQ her father a medium
o taua taniwha.
of that taniwha

The reason this woman was returned was that her father was a medium for that taniwha. (Orbell 1992:50)

This is the last part of a narrative concerning Pare-kawa, who is returned to her family by a taniwha. In the narrative she breaks tapu, goes mad, and throws herself in the river. The taniwha who lived there returns her to her people and this sentence reiterates her return. *Ai* refers back to the description of her return and forward to the specific reason why it had happened.

There are 40 examples of this particular construction in my database. In each case although *ai* appears to be acting as a cataphor it invariably refers to previous discourse for its full meaning. Examples of this use of *ai* are found in both classical and modern texts, and are by authors from a number of iwi throughout the country. All the sentences in my database are past tense and the resultant verb is marked by the TAM *i*. *Ai* can not be replaced by a locative particle in this construction.

5.4 Conclusions for resultative *ai*

Resultative *ai* is the term used for those cases when *ai* locates its clause in prior discourse and adds a casual relationship between the prior discourse and its clause. This occurs in purpose clauses introduced by *kia*, in dependent action clauses introduced by *ka*, and in result clauses.

Purpose clauses

Kia .. ai purpose clauses are widely used by speakers of all iwi and are still productive. Indeed contemporary speakers arguably use the construction more freely than speakers did in classical times. The construction is particularly useful when a speaker wishes to assert that an action occurs for a particular purpose rather than a general one. The sense of 'for the specific purpose of' is an appropriate literal translation. *Ai* is not obligatory in these sentences, and its removal does not make the sentence ungrammatical but it does weaken the 'specific purpose' intent the speaker is wishing to impart. *Ai* cannot be replaced by *ana* or a locative particle in these clauses. An example follows:

1650 Tahu-na he kai kia ora ai te haere. (Grey 1928:41)
cook-PASS a food TAM well ai the journey

Cook some food so that we will have strength for the journey.

For the most part, *kia .. ai* purpose clauses are used in similar circumstances as *kia* alone purpose clauses are, but there are examples where *kia .. ai* marks a purpose clause which would normally be marked by *ki te*. This occurs particularly where the prior clause is an imperative:

1651 Haere mai kia pānui ai koutou i te tohutohu.
move DIR TAM read ai you ACC the instruction

Come here so that you can read the instructions.

Of note is the fact that in these same subject sentences with active purpose verbs the inclusion of the subject in the *kia .. ai* purpose clause is strongly preferred. Examples such as these are evidence that *kia .. ai* marking adds a sense to the utterance that neither *kia* nor *ki te* are able to do.

Dependent action clauses

The combination of *ka* with *ai* marking for verbal clauses is used by a speaker to indicate to the listener a particular form of dependence between that clause and some element of prior discourse. The construction is found in dependent action clauses where an action is dependent on and subsequent to a prior action, in utterances where the action is dependent on a previously stated time, and in some result clauses.

Dependent action clauses are often found as part of a series of orders or instructions. The construction indicates that the *ka .. ai*-marked instruction is dependent upon successful completion of a prior order or orders. In this construction only active verbs are found in the *ka .. ai* clause:

1652 Mau-ria mai te naihi ka kōripi ai ngā āpopo.
bring-PASS DIR the knife TAM slice ai the(pl) apple

Bring the knife and then cut up the apples.

The utterance need not be imperative, but the same dependence on a prior action is intended by *ka .. ai* marking in a sequence of actions. With declarative sentences the verb in the *ka .. ai* clause need not be active in form.

Where an action should be carried out at a particular time in the future then the *ka .. ai* construction can be used to indicate this to the listener. In such utterances the time adverbial initiates the sentence and the main verb is marked by *ka .. ai* to indicate its dependence on the stated time.

1653 Hei te pō kengokengo ka puta ai te kiwi.
at the night pitch.black TAM emerge ai the kiwi

When it is pitch black, then the kiwi will emerge.

Ka .. ai marking is used by some speakers to indicate a result of some previously described action or event. This is more common for modern speakers, particularly those of Tūhoe and Ngāti Kahungunu iwi. All types of verbs can be used in this construction. An extract from a classical narrative demonstrates:

1654 Ka rongo ake te tuahine ki ngā iwi rā e tangi ana, ‘Tauparoro! Tauparoro!’ Ka karanga ake ai te tuahine, ‘E tangi! .. (Grey 1928:33)

The sister heard those bones rattling, ‘Tauparoro! Tauparoro!’ And so she called up, ‘Rattle! ..

Result clauses

Result clauses in Māori have received very little attention in the literature. Bauer described them as a distinctive type of clause often introduced by the conjunctions *nā/nō reira* or *nā wai*, although I have been unable to find any textual examples with *nā wai.* Result clauses introduced by either *nā* or *nō reira* appear to have no difference in meaning. The resultant verb will probably be marked by *ai* if its TAM is *i* (or more rarely *e*), will probably not be marked by *ai* if the TAM is *ka*, and will definitely not be marked by *ai* if any other TAM is used. There are no restrictions on the type of resultant verb. A past tense example follows with *i .. ai* marking:

1655 Kua raupatu-tia te whenua nō reira i tautohe ai te iwi.
TAM dispossess-PASS the land belong there TAM protest ai the people

The land had been stolen so the people protested.

Ai is optional in result clauses and it is not always apparent why it may sometimes be excluded. For some authors it appears that *ai* is used to alert the listener to a discourse old event that is the result of previous events. *Ai* can not be replaced by a locative particle or *ana* in these clauses.

Summary

Resultative *ai* differs from resumptive *ai* in that it does not resume a particular NP located earlier in discourse. Rather it resumes a discourse matter and adds a specific causal aspect to its clause. The function of resumptive *ai* is semantic rather than grammatical. In other words, the inclusion of resultative *ai* affects the meaning of its clause. The specific interpretation of the clause is dependant upon the TAM preceding the *ai*-marked verb. *Ai* combines with *kia* to form a purpose clause with a 'for the specific purpose of' meaning. It combines with *ka* to form a dependent action clause with an 'and then' meaning. It combines with *i* or *e* to form a result clause. Some speakers also use *ka* for these result clauses, and for subsequent action clauses.

Because resultative *ai* is not fulfilling a grammatical function, it could be argued that its inclusion is optional. However because of its discourse function, its removal will change the meaning of the sentence which may make the sentence uninterpretable. Where the patient of a transitive verb marked by *ai* is in the nominative case and the active form of the verb is used, deletion of *ai* also makes the sentence ungrammatical.

Resultative *ai* is an anaphor because it alerts the listener to prior discourse for the interpretation of its clause. Whilst it does not refer to a particular NP, native speakers have no difficulty indicating what part of prior discourse resultative *ai* refers to. Generally it refers to a specific element, but it can also recapitulate some element which would be expected to be in the consciousness of the listener. Its inclusion is strongly preferred where a speaker wishes to unambiguously indicate to the listener a consequential or sequential reading of its clause.

Chapter 6: HABITUAL *AI*; NON-VERBAL *AI*

6 Introduction

In this chapter those uses of *ai* not accounted for in the two previous chapters are discussed.

Section 6.1 analyses the uses of habitual *ai*. A range of constructions are described that may be used for events or states that occur habitually. Of these there are three constructions where *ai* is used to add habitual aspect to the verb it marks.

Section 6.2 describes those situations where *ai* is included in what appear to be non-verbal phrases. Arguments are firstly presented for considering the determiner *te* as capable of acting as a verbal marker in certain situations. Then a range of *te* .. *ai* constructions are described as well as some time nominalisations which contain *ai*.

Section 6.3 describes an idiomatic expression with *ai* that can be found in narratives.

6.1 Habitual *ai*

6.1.1 Background

Māori has a number of ways of describing habitual events. Bauer commented that habitual aspect was 'subject to more dialectal variation in Māori than most other areas of the grammar' (1997:122). She described seven forms, only one of which contains what she called 'habitual *ai*'– the term adopted in this thesis. Her example follows:

1656 Tuhi-tuhi reta ai ia.
write-DUPL letter TAM he

He writes letters. (1997:123)

The earliest grammar texts, those of Maunsell, Williams, and Stowell, had no mention of *ai* marking habitual aspect. These texts are based on the Northern dialect which did not appear to use *ai* on its own in this way. The Williams' dictionary does have an entry that describes *ai* as 'denoting present habitual condition or action' (1971:5):

1657 Noho noa ai ngā tāngata o tērā motu; kāore e mahi kai.

The men of that island live at ease; they do not cultivate food (1971:5).

Smyth's text appears to have been the first of the grammars to assign to *ai* the ability to 'denote habitual condition or action' (1943:153). Most contemporary grammars include reference to habitual marking by *ai*—see for example Ryan (1978:76), Moorfield (1989:10), Karena-Holmes (1995:80) and Foster (1997:42). Interestingly, in some modern texts this is the only use of *ai* included. In Mahuika, for example, the only mention of *ai* was for where 'ai at the end of a verb means a "habitual" occurrence' (1974:60).

Bauer argued that habitual *ai* is a TAM that can be formally distinguished from all its other uses (1997:375). As a TAM, *ai* was used 'for habitual action in both past and present, and informants describe it as common in this use' (1981:67). Her observations are worth repeating (1981:67-8):

> It is not clear whether, out of context, a present tense reading was normal, past tense readings being obtained only when an adverb (or something else in the context) demanded it. Some dialects do not have ai by itself as the habitual marker, but have a discontinuous marker e .. ai, positioned as e .. ana. It seems likely that this represents the older form, the construction presumably arising from ellipsis.

Bauer also stated that it was East Coast iwi who used *ai* on its own for habitual marking, whereas Taranaki iwi used *e .. ai* (1997:123). Like Bauer, Harlow indicated that both *ai* alone (2001:60) and *e .. ai* marking (2001:58 & 263) could be used for habitual aspect.

Before describing the use of habitual *ai*, a brief outline of constructions without *ai* that describe habitual aspect is presented.

6.1.2 Habitual aspect without *ai*

There are 75 sentences in my database, deliberately selected from the narratives, which describe habitual aspect and do not contain *ai*. One third of these are non-verbal.

6.1.2.1 Non-verbal constructions

The most common non-verbal construction used for describing habitual actions is a set structure in which the agent (Mea), an *a*-possessor of the NP *te mahi*, habitually carries out an action introduced by *he*. The generalised structure is:

te mahi a (Mea) .. he (nominalised verb)

An example from a narrative follows:

1658 Ko te mahi a tēnei tangata he tuku rangi ..
TOP the work of this man CLS release heaven

The work of this man was to let down the heavens.. (Orbell 1992:42)

This construction is reasonably widely occurring. I have examples from eight different iwi and they can be readily found in both classical and modern texts. A modern example follows:

1659 Ko tāku mahi ia rā, he haere ki te tupuna whare. (Huia 1997:41)
TOP my work each day CLS move to the ancestor house

Every day I went to the ancestral house.

Another non-verbal construction involving the base *pērā* 'like that' (and occasionally *pēnei* or *pēnā*) is often used to indicate the habitual aspect of a previously described action. In most examples, *pērā* (etc.) is followed by *tonu* 'continually':

1660 I ngā rā katoa, he pērā tonu tā.rāua mahi.
at the(pl) day all CLS like.that cont their work

Every day they did this. (Reedy 1997:45)

This base is also found in verbal constructions, with no apparent difference in meaning:

1661 Ka pēnā tonu tāna.
TAM like.that cont his

He did this every time. (Orbell 1992:55)

My data suggests that the verbal version is much more common. I have examples from six different iwi and they readily occur in both time frames. The construction appears to be fairly widely used.

Timoti Karetu described a particular non-verbal construction that can be used for habitual action. This involves the phrase *rite tonu* with the habitual action appearing as a nominalised subject and the agent as the subject's *a-* or *o*-marked possessor (1991:142). Like *pērā*, the construction may be either non-verbal or verbal with no apparent difference in meaning. An example follows:

1662 He rite tonu te puta ake o te ihu o te taniwha rā i te wai.
CLS like just the emerge DIR of the nose of the monster LOC from the water

The taniwha kept on sticking its nose out of the water. (Karetu 1991:143)

When a causer phrase is located before the *rite* phrase then *ai* may be required. However this is marking the fronted adverbial and not an example of habitual *ai*:

1663 Nā tēnei kore mōhio o rātou ko wai rātou, i rite tonu ai
belong this NEG know of them FOC who they TAM like cont ai
te uru ki te raruraru.
the enter to the trouble

It is because of this lack of identity that they continue to get into trouble (1991:143).

I have been unable to find a textual example apart from those by Karetu. A Tūhoe consultant confirms that the construction does describe habitual aspect, and that it may be peculiar to her dialect. A Ngāpuhi consultant was not familiar with the construction. In many dialects the *rite tonu* combination usually means 'exactly alike':

1664 He rite tonu te toro o ngā ringa o taua iwi katoa
CLS like cont the extend of the(pl) hand of that people all

Each hand was put forward in perfect time with all the rest (White 1890b:227)

In many sentences in my corpus there are other indicators to the listener that the action or state is habitual. A common strategy is the reduplication of the verb:

1665 Ko te mahi a Rua-rangi, he haere ki.te pu-puhi manu.
TOP the work of Rua-rangi CLS move TAM shoot-DUPL bird

Rua-rangi's job was to shoot birds. (Orbell 1992:20)

The adverb *tonu* 'continually' often appears in phrases that are indicating habitual aspect:

1666 I ngā rā katoa, he pēnā tonu ngā mahi a Māia, he kai i ngā kīnaki.
at the(pl) day all CLS like.that cont the(pl) work of Māia a eat ACC the relish

Every day Māia did this, he ate the relishes. (Reedy 1997:41)

In some cases *tonu* alone is sufficient to indicate habitual aspect, as in the following example:

1667 Ehara koutou i te tāngata, he ota tonu tā.koutou kai.
NEG you ACC the human CLS raw cont your food

You aren't human, all you ever eat is raw food. (Tremewan 2002:211)

Another strategy of indicating habitual aspect involves including in the utterance a plural time phrase such as *ngā rā katoa* 'every day' as in 1666. When the time phrase involves *ia* 'each', it is often repeated:

1668 Ia rā, ia rā, koia nei te mahi a Para. (Huia 1998:39)
each day each day that.is LOC the work of Para

Para did that every day.

These strategies are also often used in verbal sentences describing habitual aspect.

6.1.2.2 Verbal constructions (without *ai*)

A range of verbal constructions are used to indicate habitual aspect. Contrary to Bauer's assertion that non-verbal constructions are preferred (1997:122), my data indicates that verbal constructions are more common, at least in the narratives available to me. In both time frames constructions without *ai* are also more common than those with habitual *ai*.

A number of non-*ai* constructions are possible for habitual aspect. Only a brief description of non-*ai* structures will be presented here as further examples can be found in Bauer (1997:122-5).

e .. ana

Bauer observed that *e .. ana* appeared to be the 'most common marker for habituals in those dialects which do not use *ai*' (1997:124). An example from a speaker of the Northern dialect follows:

1669 Ā i ia rā e whakaako ana ia i roto i te temepara.
and at each day TAM teach TAM he at in at the temple

And every day he was teaching in the temple. (Luke 21:37)

All examples in my database are from iwi who do not use *ai* alone to mark habitual aspect.

ana

In narrative discourse *ana* can indicate habitual aspect, although the construction is relatively rare. This is probably a variant on *e .. ana*. The following example is by the same author as 1669:

1670 Ā whakaako ana ia i te temepara i ia rā, i ia rā.
and teach TAM he at the temple at each day at each day

And he taught daily in the temple. (Luke 19:47)

ka

Ka is the most common marker for habitual aspect in my corpus, and it appears to be used by iwi who also use habitual *ai*. An example follows:

1671 Ia rā, ka peka atu a Tony ki te kāuta o ngā kaumātua. (Huia 1997:45)
each day TAM visit DIR PER Tony to the kitchen of the(pl) elder

Every day Tony visited the kitchen of the elders.

i

It appears to be quite rare to use *i* for habitual aspect. The following is the only textual example I have been able to locate, by a Ngāpuhi writer who does not appear to use habitual *ai*:

1672 I haere ōna mātua i ia tau, i ia tau ki Hiruharama ..
TAM move his(pl) parents at every year at every year to Jerusalem

His parents went to Jerusalem every year .. (Luke 2:41)

e

As observed by Bauer, *e* may mark habituals 'especially but not exclusively, in negatives' (1997:124). Most of my examples are indeed negatives:

1673 Kaua tātou e noho tonu i ngā marae ..
NEG we TAM stay cont at the(pl) marae

Let us not continue to dwell on our marae .. (Biggs 1997:193)

E also can be used for future habituals:

1674 E tangi te pū tōrino i ngā pō katoa.
TAM sound the flute at the(pl) night all

A flute will sound every night. (Biggs 1997:107)

No TAM

In many sentences describing habitual aspect there is no TAM marking the verb, although *tonu* is usually included. Most common are those with the verb *pēnā* (etc.):

1675 Pēnā tonu te tikanga a Tangotango i ngā pō katoa .. (Grey 1928:39)
like.that cont the custom of Tangotango at the(pl) night all

Tangotango behaved like that every night ..

Verbs other than *pērā* are possible:

1676 Takoto tonu iho taua ika hai whenua.
lie cont DIR that fish as land

That fish continues to lie here as land. (Reedy 1993:23)

6.1.3 Habitual aspect with *ai*

There are three constructions with *ai* which are used to indicate habitual aspect. The most usual is with habitual *ai* alone marking the verb. There are also two constructions, usually restricted to subordinate clauses, where a habitual is marked by either *e .. ai* or *i .. ai*. Each of these will be described separately.

6.1.3.1 *ai* alone

Habitual *ai* can be used on its own to mark habitual aspect. The following example is typical:

1677 Wero atu ai te wahine rā ki ōna ngutu. (Grey 1928:82)
spear DIR ai the woman LOC with her(pl) lips

That woman always speared with her lips.

The form of the construction is predictable. There is no TAM before the *ai*-marked verb, and the subject of the clause is in its usual position directly after the VP. The subject can be *ko* fronted, in which case the VP remains unchanged:

1678 Ko ngā toa me ngā kaumātua nohopuku ai.
TOP the(pl) warrior and the(pl) elder silent ai

The warriors and the elders usually remained silent. (Moorfield 1996:142)

If *ai* is deleted from this construction, or replaced by a locative particle, the result is ungrammatical:

1678a. *Wero atu (nā) te wahine rā ki ōna ngutu.
spear DIR LOC the woman LOC with her(pl) lips

If *ai* is replaced by *ana* it loses its habitual meaning:

1678b. Wero atu ana te wahine rā ki ōna ngutu.

spear DIR TAM the woman DIR with her(pl) lips

There are 119 examples in my database where *ai* alone marks habitual aspect. 98 are from modern narratives compared to only 16 found in classical texts. I have classical examples from the East Coast and Tainui iwi and there are no classical examples from any speaker of a Northern dialect. The majority of modern examples in my database are from the East Coast or Bay of Plenty iwi. The following is by Timoti Karetu of Tūhoe:

1679 Waiata ai te iwi o Waikato i ngā whiti e rua. (1991:114)
sing ai the people of Waikato ACC the(pl) verse num two

The people of Waikato usually sing both verses.

The construction does appear to have become more widespread in its usage. The following contemporary examples are by Te Rongopai Morehu of Ngāti Whātua, and Marie Waiomio of Ngāpuhi respectively, two iwi who did not appear to have used this construction in classical times:

1680 Rere ai ahau i ētahi wā ki a Tangaroa ruku ika ai. (Huia 1995:20)
sail ai I at some time to PER Tangaroa dive fish ai

I often go to sea to dive for fish.

1681 Haere ai au ki te karakia i ngā Rātapu katoa. (Huia 1999a:65)
move ai I to the prayer at the(pl) Sunday all

I go to prayer every Sunday.

The examples above show that habitual *ai* can be used for present and past tense, with context determining which is appropriate. There are too few classical examples to be explicit about dialectal variation with regards to habitual *ai* and tense. In the modern examples those speakers in my database who use habitual *ai* do so for both past and present tense irrespective of their dialect. The construction does not appear to be used for future tense.

All verb types may be marked by habitual *ai*. Verbs that describe actions are the most common. 1680 and 1681 are typical examples for action intransitive verbs. In the case of transitive verbs, the patient is likely to appear as the surface subject of a passive verb as in the following example:

1682 Tinihanga-tia ai **au** e ngā tamariki ..
deceive-PASS ai I by the(pl) children

I was constantly teased by the children .. (Pōtatau 1991:18)

In active voice, an object can appear as the usual PP introduced by *i*, in which case it must follow *ai* and is usually located after the subject NP:

1683 Hoko ai hoki rātau **i ngā maniūa** mō te māra i Ōpotiki. (Waititi 1991:92)
buy ai also they ACC the(pl) manure for the garden at Ōpotiki

They usually buy **the manure** for the garden at Ōpotiki.

An object may be verb incorporated, in which case it will precede habitual *ai*:

1684 Rumaki **rīwai** ai a Hata mā ia kōanga, ia kōanga. (Waititi 1991:90)
plant potato ai PER Hata &others every spring every spring

Every spring Hata and the others planted **potatoes**.

Habitual aspect can also refer to a state. In the following example, a state intransitive verb is marked by habitual *ai*:

1685 Pai tonu ai ngā kōrero a te Pākehā nei. (Huia 1999a:27)
good cont ai the(pl) talk of the Pakeha LOC

The words of this Pākehā were always pleasant.

Examples with neuter verbs are rare but can be found:

1686 I ngā wā o mua, waiho ai ēnei waiata hei whakaatu ki te tamaiti
at the(pl) time of past leave ai these song as show to the child
mōna rā te oriori rā, ko wai ia, ko wai ōna tīpuna. (Karetu 1991:116)
for.him LOC the lullaby LOC FOC who he FOC who his(pl) ancestors

In the past, it was usually these songs which showed the child for whom the song was composed who he was and who were his ancestors.

As the previous examples show, sentences marked by habitual *ai* may include other elements that indicate their habitual aspect. For example, *tonu* may be included to reinforce the sense of habitual action:

1687 Heoi, haere tonu ai au ki te kura. (Pōtatau 1991:27)
however move cont ai I to the school

However, I kept going to school.

Similarly, reduplicated verbs may be used to indicate repetitive action:

1688 Waru-waru ai te tapeha. (Pōtatau 1991:14)
peel-DUPL ai the skin

The skins were usually peeled.

Time phrases may also be included to reinforce the habitual nature of the utterance. Again, this may consist of an explicit and usually repeated time phrase such as *ia rā* 'each day' as in 1689, or a plural as in 1690:

1689 Haere ai rātou ki te moana kaukau ai ia rā, ia rā.
move ai they to the sea swim ai every day every day

They go to the sea to bath every day. (Moorfield 1989:10)

1690 I ngā ata Rātapu katoa, haere hōia ai mātou ki te karakia.
at the(pl) morning Sunday all move soldier ai we to the prayer

Every Sunday morning we marched to prayer. (Pōtatau 1991:39)

It is interesting to note that these additional indicators of habitual aspect occur more frequently in modern texts. In total 30% of the modern examples employ at least one of these extra strategies to indicate that an utterance marked by habitual *ai* is indeed habitual. This compares to only 5% of the classical examples. It could be presumed that the presence of habitual *ai* was deemed sufficient for classical writers to indicate habitual aspect, but that some contemporary writers feel the need to make their meaning more explicit.

Clauses marked by habitual *ai* can also be found as part of complex sentences. It is not uncommon to have habitual *ai* marking a verb in a coordinated sentence. In the following coordinated sentence, only one of the clauses describes a habitual action, and it is marked accordingly:

1691 I mōhio-tia ko ia te ariki nō.te.mea, he tangata rangatira, he pai
TAM know-PASS EQ he the leader because CLS person chief CLS good
nō tana tū, ā, he hāngū, arā, **kōrero nui ai** ētahi o aua tupua,
belong his stand and CLS quiet that.is speak many ai some of those foreigner
ko taua tangata kīhai i maha ana kupu. (Moorfield 1996:142)
EQ that man NEG TAM many his word

It was known that he was the leader, because he was a chiefly person, of fine standing, and reserved, that is some of those tupua were always talking, but that person did not have many words.

In sentences where more than one coordinated verb is habitual, *ai* may mark each verb independently as in 1692, or only the last verb need be *ai* marked, as in 1693:

1692 Ko ētahi, moe noa **ai** i te tiriti, whāngai-nga **ai** i te tiriti, i raro
TOP some sleep freely ai at the street feed-PASS ai at the street at under
i ngā parani o ngā whare (Karetu 1991:136)
at the(pl) verandah of the(pl) house

Some always slept only in the street, were fed on the street, under the verandahs of the houses

1693 Noho tonu, kai tonu, moe tonu **ai** au i a rāua. (Pōtatau 1991:26)
live cont eat cont sleep cont ai I at PER them

I lived, ate and slept with them.

It is also not unusual to have habitual *ai* marking the verb in the main clause of a complex sentence. The following sentence has a *kia* purpose clause located after the main clause, and the habitual marking of the main VP is unaltered:

1694 Haere **ai** a Pōhutukawa ki te awa kia kite i tōna hoa ..
move ai PER Pōhutukawa to the river TAM see ACC her mate

Pōhutukawa would go down to the river to see her mate .. (Mead 1999a:166)

More interestingly, the presence of a fronted adverbial (phrase or clause) does not appear to alter the VP of the habitual main clause. In the following example, a past time phrase is located before the habitual, and the VP retains its habitual *ai*:

1695 I ētahi pō, hari-a **ai** au e taku māmā hai hoa mōna. (Pōtatau 1991:14)
at some night take-PASS ai I by my mother as friend for.her

Some nights I was taken by my mother as her companion.

In 1695 *i .. ai* would be expected for marking the fronting of the past time phrase. The absence of the TAM *i* suggests that the author preferred to indicate habitual aspect by the use of habitual *ai* alone. The same appears to hold for fronted reason adverbials. A Ngāti Porou consultant provided the following sentence when asked for a translation of an utterance with both habitual aspect and an emphasised reason adverbial, and the main verb has habitual *ai* marking:

1696 Nā te ua tae tōmuri ai ahau i ngā rā katoa.
belong the rain arrive late ai I at the(pl) day all

It is because of the rain that I am late every day.

I conclude that, in these examples, habitual *ai* takes precedence over any syntactical requirement to mark the fronting of the adverbial.

There are examples where the verb marked by habitual *ai* alone is part of a subordinate clause. In the following example, the *ai*-marked clause is a complement of the experience verb *mōhio* ‘to know’:

1697 Kāore kē au i.te mōhio **whakawhiti ai** a Māori mā ki tāwāhi.
NEG EMPH I TAM know cross ai PER Māori &others to overseas

I didn’t know that Māori and others often went overseas. (Karetu 1991:131)

As an independent sentence the subordinate clause would contain habitual *ai*:

1697a. **Whakawhiti ai** a Māori mā ki tāwāhi.
cross ai PER Māori &others to overseas

Māori and others often went overseas.

There are also examples where habitual *ai* alone is used to mark the relative verb, as described in Section 4.1.3.3.4.1. There are ten such examples in my database, all by contemporary speakers from either the East Coast, Bay of Plenty, or Ngāti Kahungunu iwi. An example follows with the relative clause highlighted:

1698 Koia nei te wāhi **haere ai ngā hokowhitu ki.te whakatapu**
that.is LOC the place move ai the(pl) army TAM consecrate
i ngā toa.
ACC the(pl) warrior

That was the place where armies went to acquire special powers so that they would not be killed in battle. (Mead 1999a:86)

The underlying sentence of the relative clause has the verb marked by habitual *ai*:

1698a. Haere ai ngā hokowhitu ki.te whakatapu i ngā toa ki taua wāhi.
move ai the(pl) army TAM consecrate ACC the(pl) warrior at that place

The army always went to that place to be consecrated as warriors.

In most cases the head of the relative clause is the subject of the underlying sentence and *ai* would therefore normally not be expected as part of the relative clause. An example from Hoani Waititi follows:

1699 He tokomaha ngā tāngata haere mai ai ki ngā ngāwhā o Rotorua. (1985:90)
CLS many the(pl) people move DIR ai to the(pl) hot.spring of Rotorua

Many people often come here to the hot springs of Rotorua.

The underlying sentence has the verb marked by habitual *ai*:

1699a. Haere mai ai ngā tāngata ki ngā ngāwhā o Rotorua.
move DIR ai the(pl) people to the(pl) hot.spring of Rotorua

The people often come here to the hot springs of Rotorua.

The use of habitual *ai* in this way may represent a change in usage as I have been unable to find a single classical example. A Tūhoe consultant suggested that it is fairly common in her dialect. A Taranaki consultant preferred using *e .. ai* for marking habitual aspect of relative verbs but confirmed that sentences such as 1699 should be read as habitual because of the presence of *ai*.

The observation that some speakers include habitual *ai* in a relative clause where *ai* would not normally be required syntactically suggests a formal distinction being made between habitual *ai* and resumptive *ai*. When the head is an oblique and resumptive *ai* is possible, the fact that the habitual *ai* construction is preferred also suggests that, at least for these speakers, habitual *ai* takes precedence over resumptive *ai* where both are possible.

6.1.3.2 *e .. ai*

Bauer indicated that speakers from Taranaki would use *e .. ai* instead of *ai* on its own to indicate habitual aspect (1997:123). I have been unable to locate a single textual example to confirm that *e .. ai* is used by these iwi for marking the main verb in a sentence, despite searching a number of their narratives. Indeed, it appears that *e .. ai* marking for the main verb is quite rare. I have only one example in my database, a modern one by Pei Te Hurinui of Tainui:

1700 Ko ngā iwi o Parahore e whakamahi-a ai i ngā wā patu manu
TOP the(pl) people of Parahore TAM work-PASS ai at the(pl) time kill bird
ki.te patu mai i te manu mā Korokore.
TAM kill DIR ACC the bird for Korokore

Parahore's people were set to work killing birds for Korokore in the fowling season. (Jones and Biggs 1995:141)

E .. ai marking may be used to mark a relative verb which has habitual aspect. I have 18 such examples, from speakers from a reasonably wide range of iwi. The following example is by Pirimia Burger of Ngāi Tahupōtiki and Rangitane iwi:

1701 I ngā wā e haere ai mātau.ko tōku whānau ki tō.mātau wharenui ki a
at the(pl) time TAM move ai I.and my family to our big.house to PER
Tutehuarewa, ka tūtaki anō mātau ki ngā whānau-nga katoa. (Huia 1999b:14)
Tutehuarewa TAM meet again we ACC the(pl) born-NOM all

Whenever my family and I go to our meeting house, Tutehuarewa, we meet up with all the relatives.

Most examples with *e .. ai* marking the relative verb are relativising on time as in the previous and following example:

1702 Nā, i ngā wā e hui-hui ai ngā hapū o Roto-rua ki Mokoia ..
now at the(pl) time TAM meet-DUPL ai the(pl) subtribe of Roto-rua at Mokoia

Now, whenever the subtribes of Roto-rua gathered together at Mokoia .. (Biggs 1997:105)

The underlying sentence of 1702 would have habitual *ai* marking:

1702a. Hui-hui ai ngā hapū o Roto-rua ki Mokoia i aua wā ..
meet-DUPL ai the(pl) subtribe of Roto-rua at Mokoia at those time

The subtribes of Roto-rua gathered together at Mokoia at those times ..

Examples where the subject is head of the relative clause do occur, as in the following example by Te Rangikāheke:

1703 Ko ngā mea e patu-a ai e taua mea ..
TOP the(pl) thing TAM kill-PASS ai by that thing

The creatures usually caught by those things .. (Biggs 1997:109)

As an example of subject relativisation, resumptive *ai* would not be expected to occur in 1703, but habitual *ai* is quite possible in the underlying sentence:

1703a. (E) Patu-a ai ngā mea e taua mea.
TAM kill-PASS ai the(pl) thing by that thing

The creatures are usually caught by that thing.

Some relative clauses with *e .. ai* marking can be ambiguous in meaning. As Harlow observed, *e .. ai* is used for relative clauses that are either future tense or habitual aspect (2001:262). In most cases context will determine the appropriate interpretation. Habitual aspect is sometimes made clear in these utterances by the use of a reduplicated verb or an explicit time phrase (1702).

6.1.3.3 *i .. ai*

I .. ai for marking habitual aspect has not been discussed in the literature. I have found only one example, in a narrative edited by Biggs, where a main verb is marked by *i .. ai* to indicate habitual action:

1704 I kau mai ai te wahine nei ki uta i ngā ahiahi, ..
TAM swim DIR ai the woman LOC to shore at the(pl) evening

This woman used to swim ashore at sunset, .. (1997:5)

This utterance is clearly habitual, as indicated by the translation and by the plural time phrase *i ngā ahiahi.* Interestingly, the original version of this narrative does not have the TAM *i* before the verb, so presumably it was added by the editor. The original text is from *Te Ao Hou*:

1705 Kau mai ai te wahine nei ki uta i ngā ahiahi .. (Tareha 1955:20)
swim DIR ai the woman LOC to shore at the(pl) evening

As discussed in the Section 4.1.3.3.4.1, there are examples where *i .. ai* marks a relative verb for habitual aspect. A classical example follows:

1706 .. ka kite-a te wāhi i kimi-hia mai ai e rātou. (Grey 1928:102)
TAM find-PASS the place TAM seek-PASS DIR ai by they

.. they discovered the place they had been searching for.

As this relative clause relativises on subject, resumptive *ai* would not be expected, but habitual *ai* is possible. Habitual *ai* alone would mark the verb in the underlying sentence:

1706a. Kimi-hia mai ai e rātou te wāhi
seek-PASS DIR ai by they the place

They were searching for the place.

This same argument can be applied to the following contemporary example by Wayne Ngata of Ngāti Porou:

1707 Ehara i te mea hou, he āhuatanga i kōrero-tia ai i nehe rā,
NEG ACC the thing new a situation TAM speak-PASS ai at ancient.times LOC
i tua whakarere. (Huia 1999a:30)
at past abandon

This wasn't a new phenomenon, but was something discussed in the past, in days gone by.

Whilst resumptive *ai* is unexpected in the relative clause, habitual *ai* is possible. The underlying sentence would then be as follows:

1707a. Kōrero-tia ai te āhuatanga i nehe rā, i tua whakarere.
speak-PASS ai the situation at ancient.times LOC at past abandon

The phenomenon was regularly discussed in the past, in days gone by

It appears that the *ai* in these sentences is likely to be habitual *ai*. There are only five examples in my corpus where *i .. ai* marks a relative verb for habitual aspect, which is too few to be precise about details. My consultants definitely preferred either *e .. ai* or *ai* alone for marking the relative verb as habitual, and *i .. ai* was seen as problematic by some. All examples are past tense which may have encouraged the use of *i*.

6.1.4 Conclusions for habitual *ai*

Habitual aspect shows a great deal of dialectal and stylistic variation in Māori. There are a number of verbal and non-verbal forms which can be used. In particular two non-verbal forms appear to be widespread in usage in both classical and modern Māori narratives.

Contrary to Bauer's assertion, my evidence suggests that verbal constructions are more common than non-verbal for expressing habitual aspect. There are a number of constructions possible, some of which are available to speakers of all dialects while others appear to be more restricted in their usage. *E .. ana* marking, for example, is preferred by those dialects who do not use *ai*, whereas *ka* marking is used by all dialects.

Verbs can be marked by habitual *ai* to confer habitual aspect upon them. It has been argued here (after Bauer) that habitual *ai* is a particle distinct from anaphoric *ai*. Habitual *ai* is not anaphoric and its function is to impose habitual aspect on its verb, whether that verb is in a main or subordinate clause. In situations where both habitual *ai* and anaphoric *ai* can occur (such as for utterances with fronted time phrases) habitual *ai* takes precedence if a speaker wishes to emphasise the habitual aspect of the action or state. Habitual *ai* can also occur in situations where anaphoric *ai* is prohibited, notably in relative clauses that relativise on the subject.

The usual construction in which habitual *ai* is used for marking habitual aspect has habitual *ai* alone marking the verb, as in the following example:

1708 Noho ai ngā kuia i runga i te paepae.
sit ai the(pl) old.woman at upon at the paepae

The old ladies usually sit on the paepae.

If *ai* is deleted or replaced by any other particle in this sentence the habitual reading is lost. This construction was used mainly by speakers from the Eastern region in classical times but appears to be more widespread in its usage nowadays. It is still productive.

Examples with both *e .. ai* and *i .. ai* have been found which appear to also indicate habitual aspect. These occur specifically in relative clauses. Both are reasonably rare with *e .. ai* being the more common. There is too little data to be precise here but *e .. ai* appears to be used by a number of iwi, and by some speakers who do not use *ai* alone for marking the verb of a main clause for habitual aspect. Consultants were generally agreed about the suitability of *e .. ai* for marking habitual aspect, even if their particular dialect did not favour it. Although examples with *i .. ai* do exist, the status of this construction must remain tentative. No consultant admitted to using this combination for habitual aspect, and two consultants were quite uncomfortable with it.

6.2 Non-verbal constructions and *ai*

6.2.1 Background

Most grammars have argued that *ai* is only found in VPs. In his PhD thesis, for example, Biggs located *ai* in the same 'slot' as post-verbal *ana* (1961:23). Karena-Holmes iterated the commonly held view that *ai* was a verbal particle 'in all its uses' (1993:43). This was despite an example in Maunsell where *ai* is included in a NP, as evidenced by its possessive determiner *tōna* and the Canga nominalised base *kite-nga*:

1709 .. i tōna kite-nga ai.
at his see-NOM ai

.. when it was seen. (Maunsell 1862:90)

Bauer observed that *ai* was usually restricted to VPs and that '*ai* is not used with non-verbal predicate phrases though the construction would require *ai* in a verb constituent' (1997:387). Her example has a fronted reason adverbial yet no *ai* marks the fronting:

1710 He aha kē i a Hone tō pukapuka?
CLS why diff at PER John your book

Why does John have your book? (1997:387)

The equivalent verbal construction would require *ai*:

1710a. He aha kē a Hone i tāhae ai i tō pukapuka?
CLS why diff PER John TAM steal ai ACC your book

Why did John steal your book?

Bauer had noted examples like Maunsell's, where '*ai* is occasionally found with Canga nominalisations in time phrases and in cause phrases' (1997:387). Her example (originally from *Nga Moteatea*) is as follows:

1711 I waiata-tia e tana wairua i runga i te whare i tōna mau-ranga **ai**
TAM sing-PASS by his spirit at top at the house at his take-NOM ai
i te tamaiti.
ACC the child

It was sung by his spirit on the top of the house when it took a child. (Ngata and Te Hurinui 2004:372)

Bauer also commented on two other situations where *ai* may appear in what she believed were stem nominalisations, namely 'sentence nominalisations with adverbial fronting' (1712), and 'certain types of complement clauses' (1713):

1712 Āpōpō tāua te rongo **ai** i te kōrero.
tomorrow we the hear ai ACC the talk

Tomorrow we will hear the news. (1997:388)

1713 Pēnei e kore au e whakamā te mea atu **ai** au ki ērā,
like.this TAM NEG I TAM ashamed the say DIR ai I to those
'E kore au e tae atu'.
TAM NEG I TAM arrive DIR

If it had been like this, I would not have been ashamed to say to them, 'I will not go with you'. (1997:389)

In both examples *te* introduces the *ai*-marked base. Presumably, Bauer assumed these were stem nominalisations because she defined *te* as the 'default determiner' (1997:144) which would therefore be unable to mark verbs.

Harlow also described the presence of *ai* in Canga-nominalised time phrases (as in 1711), and a colloquial expression meaning 'especially because of':

1714 Tino kaha kē te mura o te ahi, i te maroke **ai** hoki o aua rau rākau, otaota hoki.

The fire was particularly fierce, especially because of the dryness of the leaves and the grass. (Harlow 2001:61)

It appears that while many grammars restrict *ai* to VPs it is clear that native speakers do produce utterances in which *ai* appears in phrases that may be non-verbal. To date there has been no satisfactory explanation provided for the use of *ai* in these situations.

Here it is first argued that *te* may act as a verbal marker in certain situations. As a consequence the inclusion of *ai* after a *te*-marked verb is completely predictable, required because of adverb fronting or as a general discourse anaphor. The presence of *ai* in past time nominalisations is also described.

6.2.2 *Te* as verbal marker

In this section those instances where *te* arguably acts as a verbal marker are presented. Constructions with *te .. ai* are not included at this stage.

Te regularly occurs in combination with either *kei* or *i* to mark verbs as having continuous aspect in present or past tense respectively:

1715 Kei.te tupu aua rākau ināianei.
TAM grow those tree now

Those trees are growing today. (Jones and Biggs 1995:51)

Most grammars treat *kei te* and *i te* as fixed combinations and, in effect, single particles. This is not evidence that *te* on its own can act as a TAM.

Te often combines with the preposition *me* 'with' to indicate an action that occurs at the same time as another, and the *me te* phrase has many verbal characteristics. In the following example the verbal nature of the *te*-marked base is indicated by the presence of a direct object marked by *i*:

1716 Ka noho te ope rā, **me te** ako **i** ngā kōrero, i te rā, i te pō.
TAM stay the group LOC with the learn ACC the(pl) story at the day at the night.

They stayed there acquiring knowledge by day and by night. (Biggs 1997:133)

The following has the *me te* base modified by *haere* , which regularly modifies verbs in this manner, and the clause also contains an unmarked NP which is the subject of *whakarongo*:

1717 Me te whakarongo haere te autaia nei.
with the listen move the rascal LOC

And the rascal was listening to them as he went along. (Orbell 1992:44)

Me te could arguably be viewed as a fixed combination similar to *kei te* and *i te*, but the verbal features of the *me te* phrase may also support the notion that *te* can introduce verbs.

Another structure of interest is those where *te* marks a complement clause for certain neuter verbs:

1718 Kua pau noa ake ngā mōunu i ngā wheke **te kai**.
TAM consumed freely up the(pl) bait by the(pl) octopus the eat

The bait was being eaten by the octopuses. (Biggs 1997:29)

A similar construction occurs with the passive verb *taea* 'be able':

1719 I tae-a ngā mōunu e ngā wheke **te kai**.
TAM effect-PASS the(pl) bait by the(pl) octopus the eat

The octopuses were able to eat the bait.

These sentences appear to have two unmarked NPs, *ngā mōunu* and *te kai* (the '*te* phrase'). Of these only *ngā mōunu* can be *ko* fronted, a process only available to the grammatical subject:

1719a. Ko ngā mōunu kua pau noa ake i ngā wheke te kai.
TOP the(pl) bait TAM consumed freely DIR by the(pl) octopus the eat

1719b. *Ko te kai kua pau noa ake ngā mōunu i ngā wheke.
TOP the eat TAM consumed freely DIR the(pl) bait by the(pl) octopus

Thus *ngā mōunu* is the surface subject and *te kai* is something else. It is noteworthy that the *te* phrase must have a base that is 'verbal in sense' (Bauer 1997:494), as shown by the translation.

In her analysis of these sentences, Hooper argued that the *te* phrase had 'been derived from a situation where it was the subject of a higher verb' (1984:10). In her view the *te* phrase is originally the subject of the neuter verb but gets demoted to the status of a chômeur when the direct object (*ngā mōunu* in the sentences above) is raised to be the surface subject of the neuter verb.

This also appeared to be the position of Bauer, who defined the *te* phrase as a 'sentential complement' (1997:494). She suggested that it should be analysed as the verb of a complement clause. Thus the underlying structure as applied to the above example, using her analysis, would be as follows:

$[\text{Kua pau noa ake}]_{\text{Verb}}$ $[\text{TAM kai ngā wheke i ngā mōunu}]_{\text{Subject}}$

Waite also gave attention to what he called the 'problematic *te'* found in these sentences and in purpose and conditional clauses. He concluded that problematic *te* was best viewed as a 'verbal determinant' (1989:79-80). Later he proposed that a NP should be redefined as a 'determiner phrase' (DP), with the determiner as its head and a NP, VP, or AP (AP = Adjectival Phrase; Waite classed state intransitives as adjectives) as its complement. Thus:

$[_{DP}\ [_{D'}\ \text{DET}\ \ \text{XP}\ ]]$, where X = {V, N, A} (1994:61)

It is worth quoting his central thesis here:

> .. nouns, verbs and adjectives that appear in determiner phrases (or what have traditionally been called 'nominal phrases') without undergoing semantic change maintain their lexical category; that is verbs and adjectives do not become nouns, or even 'verbal nouns' or 'adjectival nouns' (1994:60).

If Waite's proposal is correct, *te* can unambiguously mark verbs provided the verb remains semantically verbal. This appears to be the case for these *te* phrases.

Two further observations can be made about the *te* phrases in the above examples. Firstly, *te* can not be replaced by any other determiner. Secondly, the *te*-marked base always describes an action and it can not be replaced by its Canga-nominalised form. This is strong evidence that the *te* phrase is verbal and therefore *te* is capable of marking a verb.

The sentences above are not the only constructions where *te* is able to meet these criteria. Firstly, *te* occasionally marks the verb in the future actor emphatic construction. In the following example, *te titiro* 'to look' is verbal in nature:

1720 Māhau te titiro ki te rewa-nga ki runga o te oneone.
for.you the look at the elevated-NOM to upon of the soil

You are to look at the place where the earth heaves up. (Tremewan 2002:2)

Secondly, the following example has a passive verb marked by *te .. ana*:

1721 .. ka ngaro a uta, ko runga anake o ngā maunga te kite-a ana.
TAM lost of shore at upon only of the(pl) mountain the see-PASS TAM

.. the shore was lost from sight, and they could see only the tops of the mountains. (Orbell 1992:91)

Although a rare construction, my consultant was perfectly happy with it. *Te .. ana* marking is used in waiata where it is probably a poetic device, as in the following extract:

1722 Ko te whenua anake **te** āmaia **ana**
E aku mahara ki ngā pūtea,

All the earth around is bringing hither
To my memory thoughts of those precious heaps, (Ngata and Te Hurinui 2005:170)

Finally, most compelling are those instances, not uncommon in classical narratives, where *te* marks a verb in what appears to be a fairly prescribed structure. An example follows with the relevant *te* highlighted:

1723 I te ū-nga mai, tērā te wahine rā **te** haere atu rā.
at the land-NOM DIR that the woman LOC the move DIR LOC

When they landed, there was a woman passing by. (Biggs 1997:185)

The form of the structure is predictable. An unmarked demonstrative initiates the segment, followed by the subject (when present), and the *te* phrase, which is always modified by a locative particle matching the form of the demonstrative, completes the segment—other optional particles are located as expected. The fixed form is:

Tēnei/Tēnā/Tērā + Subject + te + Verb + nei/nā/rā

tē**rā** te wahine (rā) te haere (atu) **rā**

The *te*-marked verb is always active, usually an action intransitive. Another example follows:

1724 **Tēnei** te tira tangata nei **te** haere atu **nei**, me te inu haere atu anō
this the group people LOC the move DIR LOC and the drink move DIR also
i te korari.
ACC the flax.flower

A party of travellers came along, drinking from the flax flowers as they went. (Orbell 1992:63)

I have 27 such examples in my corpus. Most are from classical texts, from eight different iwi, suggesting that it was reasonably widespread in usage. Pei Te Hurinui is one contemporary author who used the construction:

1725 Ka rere te teina i mua ki te kāinga ki.te kōrero atu
TAM rush the younger.sibling at before to the home TAM say DIR
ki a Hotu-nui, **tērā** tana tamaiti a Maru-tūahu **te** haere atu **rā**.
to PER Hotu-nui that his child PER Maru-tūahu the move DIR LOC

The younger girl rushed off home to tell Hotu-nui that his son Maru-tūahu was coming. (Jones and Biggs 1995:105)

The demonstrative in these utterances is a narrative device introducing a new protagonist into the discourse. Bauer suggested that in this construction *tērā* adds the sense of 'now, there was this' to the utterance (1997:640). Her examples were limited to *tērā*, but *tēnei* (1724) and *tēnā* are also possible:

1726 E, **tēnā** rawa te piki ake **nā** ..
VOC that EMPH the climb DIR LOC

Then it came rushing up towards him .. (Orbell 1992:94)

One consultant who was familiar with the construction suggested that the use of *te* instead of a TAM was more satisfying to her ear, was in her words 'more dramatic, helping the flow of the narrative'. She also emphasised that the demonstrative was an attention marker and not necessarily translatable.

It should not be surprising for *te* to mark verbs in Māori, as other Polynesian languages use the particle in this way. In Cook Island Māori, *te* (or *tē*) is regularly used in combination with either *nei* or *rā* to mark VPs:

1727 Tē 'aere mai nei 'aia i tuatua atu ei au kiāia.
te move DIR LOC him TAM talk DIR ei I to.him

I spoke to him as he was coming. (Buse and Taringa 1996:480)

Mutu remarked that in Marquesan *te .. nei* is used in VPs when 'an action or a state is beginning to happen in the immediate present' (Mutu 2002:42). Tahitian also regularly uses *te .. nei* for marking verbs for the immediate future or present continuous, and *te .. rā* for past continuous (Tryon 1970:33).

In summary, there are a number of constructions where *te* appears to mark a verb. Waite has argued that *te* may unambiguously mark verbs when their meaning is clearly verbal and certainly there are a number of instances in Māori where this appears to be the case. In those instances where *te* cannot be replaced by any other determiner and where the verb cannot be replaced by its Canga-nominalised form it has been argued here that *te* acts as a TAM. In all cases the verb is followed by *nei/nā/rā/ana* or, as we shall see, *ai*.

6.2.3 The non-verbal *ai* database

There are a total of 61 examples in my corpus of *ai* sentences where *ai* is located in what would classically be described as NPs. Of these, 58 are from narratives. Most are from classical texts with 12 from modern. The majority are from Ngāti Porou, with a few representatives from Ngāti Kahungunu and Ngāti Awa. It appears that this use of *ai* was restricted to the Eastern dialects.

The most unambiguously non-verbal constructions are past time nominalisations where the base in the *ai* phrase is a Canga nominalisation. In such cases any determiner specifying the noun is possible, with an *o* possessive determiner being the most common.

With the verb in its simplest form the only determiner is *te*. Here it is argued that these are actually VPs. The *te .. ai* construction is found mainly in sentences with fronted adverbials, and occasionally in utterances where *ai* requires a resultative interpretation.

It should also be noted that the archaic negator *tē* does occur freely in VPs. Care has been taken to distinguish phrases marked by *tē .. ai* from *te .. ai* phrases, especially in those manuscripts where vowel length is unmarked. *Tē* does co-occur with *ai* in predictable ways, and examples have been included earlier in this thesis. In the following example, resumptive *ai* is required because of the fronted reason adverbial:

1728 He aha koe tē haere ai?
CLS why you NEG move ai

Why did you not go? (Stowell 1911:32)

Sentences with *tē .. ai* marking are not considered further in this section.

6.2.4 *Ai* in time nominalisations

Past time adverbials are often nominalisations in Māori. The verb is nominalised by the addition of a Canga suffix and the underlying subject is realised as some form of possessive. The following sentences by Mohi Ruatapu include past time nominalisations with a possessive determiner and a possessive PP respectively:

1729 I **tōna** puta-nga, ka puta hoki a Whakarau.
at his emerge-NOM TAM emerge also PER Whakarau

As he came forward, so did Whakarau. (Reedy 1993:60)

1730 I te kite-nga mai anō **o te ope**, ka whati.
at the see-NOM DIR also of the army TAM flee

As soon as the army saw it they fled. (Reedy 1993:63)

While it is unusual to include *ai* in these nominalisations examples can be found. The following example is also by Ruatapu:

1731 I tōna tahuri-tanga **ai** ki te moana, whiti rawa mai a Paikea ki tēnei motu.
at his overturn-NOM ai to the sea cross EMPH DIR PER Paikea to this island

When he was overturned in the sea, Paikea made the crossing all the way over to this island. (Reedy 1993:43)

There are 17 such examples in my corpus, mostly from classical texts. All are past tense. Examples are by authors from Ngāti Porou or Ngāti Toa iwi. Note that *ai* is included in the nominalisation itself rather than in the VP which follows (which would mark the fronting). Either *te* (1734) or a possessive determiner (1731) marks the NP.

Consultants' reactions to this *ai* construction varied. None admitted that they would use *ai* in a time nominalisation in this way. A Tūhoe speaker who was familiar with the construction indicated that *ai* was optional but could not account for its presence. One Ngāpuhi consultant insisted that any examples with *ai* were wrong. She suggested that native speakers are used to including *ai* in statements of time, and that its inclusion in the nominalisation is a mistake, presumably due to contamination from the relative clause construction. The relative clause for the previous nominalisation would require resumptive *ai*:

1731a. .. i te wā i tahuri ai ia ki te moana
at the time TAM overturned ai he to the sea

.. at the time he was overturned in the sea

Another consultant suggested that *ai* indicated reason. In ten of the corpus the action in the main clause occurs as a result of the action described in the *ai*-marked time nominalisation. Perhaps *ai* has been included to indicate the causative nature of the time phrase, adding the sense of 'because'. In 1731 Paikea did not intend to migrate and only did so when the canoe he was in was sunk by Ruatapu. Similarly, a causative reading is possible for the following example because Uenuku receives his new name as a result of his deification:

1732 Ki te kōrero o neherā a Tainui ko Kahukura tētehi
according.to the story of ancient.times of Tainui TOP Kahukura one
o ngā ingoa o Uenuku i tōna atua-tanga ai.
of the(pl) name of Uenuku at his deify-NOM ai

In the ancient lore of the Tainui people, Kahukura was another name for Uenuku after he became a god. (Ngata 1959)

The following example also appears to have a causative reading:

1733 I kite-a mai e ia ki ngā kākahu ka mā i tōna rere-nga ai.
TAM see-PASS DIR by her with the(pl) clothing TAM white at her fly-NOM ai

He saw her clothes gleaming white as she fell. (Orbell 1992:158)

Although the causative nature is not obvious, Bauer's alternate translation makes the relationship clearer:

[She] was seen by him with her clothes which were white from her flight. (1997:388)

The following also appears causative:

1734 Nō te ui-nga ai a tētahi tangata mō Titoko-waru, he rangatira rānei
belong the ask-NOM ai of a man about Titoko-waru CLS chief or
a Titoko-waru, he aha rānei, ka waiata-tia nei e Maruera Whakarewa-taua.
PER Titoko-waru CLS what or TAM sing-PASS LOC by Maruera Whakarewa-taua

It was when a certain man had asked whether Titoko-waru was a chief, or what was he, that this song was sung by Maruera Whakarewa-taua. (Ngata and Te Hurinui 1980)

However not all examples in my corpus have an obvious causative element:

1735 I te mutu-nga ai o te karakia ki te tūāhu ka tomo ki roto ki tō.rāua
at the completed-NOM ai of the prayer at the shrine TAM enter to inside to their
whare ko te ruahine (Grey 1928:79)
house and the old.woman

When the prayers at the shrine were completed he and the old woman entered their house

In summary, some authors, mainly from Eastern iwi, included *ai* (optionally) in past time Canga nominalisations. My consultants do not use *ai* in this way, and there was no consensus on why it has been included. One has suggested that *ai* may be a remnant from the relative clause, whilst another suggested it indicated reason. With so few examples to work with, the acceptance of either the contamination hypothesis or a causative interpretation remains unresolved.

6.2.5 *Te* with resumptive *ai*

There are no examples in the narratives where *te .. ai* marks a relative verb whose head is an oblique NP. Sentences generated with *te .. ai* marking relative verbs received mixed responses from consultants, and their grammaticality remains uncertain:

1736 ? He aha te take te kite-a mai ai koe i konei?
CLS what the reason the see-PASS DIR ai you at here

What is the reason you are seen here?

There are examples in the database with *te .. ai* marking the verb in a sentence which has a fronted adverbial. The *te .. ai*-marked base never has a nominalisation suffix, is always semantically verbal, and may be passive in form. In these sentences it is argued that *ai* marks the fronting and *te* acts as a verbal marker. The fronting of both time and reason adverbials may be marked by *te .. ai*.

6.2.5.1 Fronted time

Te .. ai can mark the main verb when the sentence has a fronted future time adverbial. An example follows (included above and repeated here for convenience) by Mohi Tūrei of Ngāti Porou:

1737 Āpōpō tāua te rongo ai i te kōrero.
tomorrow we the hear ai ACC the news

Tomorrow we will hear the news. (Kaa 1996:124)

I have 17 similar examples in my corpus with the same pattern. The time adverbial initiates the sentence and the verb phrase is initiated by *te*. The version without *te* is the more usual form:

1737a. Āpōpō tāua rongo ai i te kōrero.
tomorrow we hear ai ACC the news

One consultant also accepted the sentence with *te* alone (but preferred *ai* with *te*):

1737b. Āpōpō tāua te rongo i te kōrero.
tomorrow we the hear ACC the news

No determiner other than *te* appears to be possible in this construction:

1737c. *Āpōpō tāua tēnei rongo ai i te kōrero.
tomorrow we this hear ai ACC the news

1737d. *Āpōpō tāua ngā rongo ai i te kōrero.
tomorrow we the(pl) hear ai ACC the news

Although I have found no examples with *te .. ana/nā/rā*, there is one with *nei.* It is from a narrative told by Hitiri Te Paerātā of Ngāti Raukawa to Te Rangi Hīroa:

1738 Mō āwhea rā te whiu kai nei mā Ngāti Raukawa?
for when LOC the place food LOC for Ngāti Raukawa

When will the feast be given to Ngāti Raukawa? (Biggs 1997:249)

The usual preposition introducing the time adverbial is *ā* (1737)*,* although *mō* (1738), *hei* (1739) and *kei* (1740) are also possible:

1739 Hei āwhea rā te tae mai ai kia hohoro ai te patu iho i ēnei,
at when LOC the arrive DIR ai TAM quick ai the kill DIR ACC these
i a Ngāti Raukawa?
ACC PER Ngāti Raukawa

When will they arrive so that we may speedily destroy these Ngāti Raukawa? (Biggs 1997:249)

1740 Kei āpōpō te teretere nei te ū mai ai. (Grey 1928:163)
at tomorrow the travellers LOC the reach.land DIR ai

Tomorrow the travellers will land here.

Most examples in my corpus are from classical texts, notably from Ngāti Porou, Te Whānau-a-Apanui, Ngāti Mutunga and Ngāti Rangiwewehi iwi. Some contemporary speakers appear to still use this construction. The following is by Hemi Pōtatau of Ngāti Kahungunu:

1741 Ka whakaaro a Tia ākuanei te tae wawe ai ko Ngātoroirangi ki reira
TAM think PER Tia soon the arrive early ai EQ Ngātoroirangi at there
i mua i a ia. (Pōtatau 1991:246)
at before at PER him

Tia soon thought that Ngātoroirangi would arrive there before him.

The following contemporary example is notable for the use of the passive form of the verb, which is evidence of the verbal nature of the *te .. ai* phrase:

1742 Ākune pea ia te kai-nga ai e ngā kurī a Tama-i-waho.
soon perhaps he the eat-PASS ai by the(pl) dog of Tama-i-waho

It was quite possible he would be eaten by Tama-i-waho's dogs. (Mead 1996a:63)

Te .. ai marking for fronted time adverbials appears to be restricted to future time. There are no examples in the narrative with past or present time, and any examples created were rejected by my informant:

1743 *Inanahi te teretere nei te ū mai ai.
yesterday the travellers LOC the reach.land DIR ai

Yesterday the travellers landed here.

Te .. ai marking for fronted time adverbials appears to be a device used by the narrator for dramatic emphasis. It is noteworthy that for all examples in my corpus the *te .. ai* clause is found as part of either direct or reported speech:

1744 Ka mea a Tinirau ki a Ngae, 'Ākuanei koe te tae ai ki tō kāinga.'
TAM say PER Tinirau to PER Ngae soon you the arrive ai at your home

Tinirau told Ngae, 'Soon you will reach your home.' (Reedy 1993:100)

6.2.5.2 Fronted reason

Te .. ai can mark the VP when the sentence has a fronted reason adverbial. The following contemporary example is from a narrative by Murtie Howearth of Ngāpuhi:

1745 He aha koe **te** haere **ai** ki mua ki.te ārahi? (Huia 1999b:27)
CLS why you the move ai at front TAM lead

Why did you go in front to lead?

I have nine similar examples in my corpus with the same pattern. The reason adverbial initiates the sentence, the subject (where present) immediately follows, and the verb phrase is initiated by *te*. *Ai* is obligatory in this construction, and *te* cannot be deleted but can be replaced by *i*:

1745a. *He aha koe te haere ki mua ki.te ārahi?
CLS why you the move at front TAM lead

1745b. *He aha koe haere ai ki mua ki.te ārahi?
CLS why you move ai at front TAM lead

1745c. He aha koe i haere ai ki mua ki.te ārahi?
CLS why you TAM move ai at front TAM lead

As with fronted time, no determiner other than *te* appears to be possible in this construction. I have found no examples where *ana* or a locative particle replaces *ai* when *te* introduces the verb.

The corpus is quite small, with most examples from classical texts and by writers from Ngāti Porou, Ngāti Awa and Ngāti Rangiwewehe iwi. A further example follows:

1746 He aha **te** kore **ai** e rere mā runga waka?
CLS why the NEG ai TAM sail by upon boat

Why did she not go by boat? (Ngata 2000:128)

One consultant stated that the phrase *te kore ai* is often used in spoken Māori.

As with the fronted time examples above, *te .. ai* marking appears to be used as a narrative device to emphasise the verbal constituent.

6.2.6 *Te* with resultative *ai*

There are 12 sentences in my database where it appears that resultative *ai* has been included in a *te*-marked phrase. In the following example *te .. ai* marks a result clause, the cause of which is located in previous discourse:

1747 Te mea ai hoki he āhua taumaha tonu au. (Pōtatau 1991:41)
the say ai also CLS bit heavy still I

And so it was said that I was still a bit too heavy.

The following example also has *te .. ai* marking a result clause:

1748 Te tau ai ko te rapa, e.ai ki te hau mai o te rongo.
the float ai EQ the sole according to the reporting DIR of the news

The soles of their feet will skim along, so the rumours go. (Ngata and Te Hurinui 2005:150)

In the following example, the *te mea ai* segment is the verbal complement of *whakamā* and indicates dependent action, which is usually marked by *ka .. ai*:

1749 Pēnei e kore au e whakamā te mea atu ai au ki ērā,
like.this TAM NEG I TAM ashamed the say DIR ai I to those
'E kore au e tae atu.'
TAM NEG I TAM go DIR

If it had been like this, then I would not have hesitated in saying to them, 'I will not go with you'. (White 1893:146)

The *te* .. *ai* phrase in the following accords with Harlow's 'especially because of', which may also be viewed as resultative:

1750 I tino whakamihi ngā tāngata, te mea ai hoki ko tō.mātou tau
TAM very compliment the(pl) people the thing ai also TOP our year
tuatahi tēnei. (Pōtatau 1991:44)
first this

The people were very complimentary, especially since this was our first year.

The following extract has *te* .. *ai* being used in a narrative to indicate discourse reason:

1751 Otirā kīhai a Manaia i mōhio he tamaiti ia nāna; nā, tērā **te** mōhiotia **ai** e Manaia taua tangata, nō tōna rerenga ki te whiu i te mātāika. (Grey 1928:100)

But Manaia didn't know that he was his son; now for the first time he knew who that man was, when he flew to catch the 'first fish'.

These examples suggest that *te* may mark a verb which is also marked by *ai* to indicate its resultative nature. There is too little data to be too precise here, but it could be assumed that the choice of *te* rather than the usual TAM is made on poetic or stylistic grounds. Examples are from Ngāti Porou, Ngāti Kahungunu, and Te Arawa iwi.

6.2.7 *Ai* in other non-verbal constructions

Bauer observed that *ai* can occur 'following a *he*-phrase' (1997:387). In her example, *ai* is part of a relative clause which relativises on an oblique time phrase:

1752 Ko tēnei te rā he horoi (ai) i te whare taku mahi.
EQ this the day CLS clean ai ACC the house my work

This is the day when my job is to clean the house. (1997:387)

The sentence underlying the relative clause would not contain *ai*:

1752a. He horoi i te whare taku mahi i tēnei rā.
CLS clean ACC the house my work at this day

My job is to clean the house this day.

Ai was considered by Bauer to be optional in this sentences (although resumptive *ai* would be obligatory if *he* was replaced by a TAM). Bauer suggested that the phrase may not be nominal, as per Waite's suggestion, and that this allowed the use of *ai*. A further example from Bauer follows in which the head of the relative verb is location:

1753 Ko tēnei te kura he kaiako (ai) ahau i 1970.
EQ this the school CLS teacher ai. I at 1970

This is the school where I was a teacher in 1970. (1997:387)

Again the sentence underlying the relative clause would not contain *ai*:

1753a. He kaiako ahau i taua kura i 1970.
CLS teacher I at that school at 1970

I was a teacher in that school in 1970.

These *he .. ai* phrases could be interpreted as verbal, although *kaiako* in 1753 does not have the semantic force of a verb. What is of note is that in both these examples the relative clause is describing an habitual action and this may have encouraged the inclusion of *ai*. My consultants were uncertain about the use of *ai* in these two examples. I have been unable to find a single textual example with *he .. ai* marking (apart from the *he aha ai* 'why' phrase).

More puzzling is the following example with *hei .. ai* marking. It is the only one of its kind, and *ai* is usually prohibited from co-occurring with *hei*. I cannot account for this particular example, although again it does have habitual aspect:

1754 Hei konei te raina hei haere-ngia ai e te tohoraha i mua.
at there the line for move-PASS ai by the whale at before

The [breeding] path which the whales travelled before was here. (Matiu and Mutu 2004:138)

The examples above are somewhat puzzling. I have tentatively suggested that habitual *ai* is being used in these sentences. If so, then perhaps habitual *ai* does not have the same restrictions as anaphoric *ai* in term of its distribution. However the following sentence was rejected by my consultants when *ai* was included:

1755 He koa (*ai) ahau i ngā wā katoa.
CLS happy ai I at the(pl) time all

I am happy all the time.

The status of the use of *ai* with either *he* or *hei* remains uncertain. These are probably constructions that a speaker is best to avoid using.

6.2.8 Conclusions for *ai* in non-verbal phrases

The occurrence of *ai* in what appears to be non-verbal phrases has not been accounted for in the literature to date but there are simply too many examples to dismiss. Two constructions have been described here. One is clearly non-verbal and the other arguably verbal (despite the presence of *te* as a verb marker).

The clear non-verbal form is one in which *ai* optionally appears in past time nominalisations. It has been suggested here that *ai* is included by the speaker to indicate the resultative nature of the nominalisation. More specifically, the state or action in the main clause is a result of the state or action described in the *ai*-marked nominalisation. Essentially the underlying meaning of the nominalisation is 'because' rather than 'when'. The resultative hypothesis is reasonably satisfying, however one native speaker suggested that the inclusion of *ai* is a mistake, included because it is often found in clauses that relativise on time. Both *te* and possessive determiners are attested as introducing the *ai*-marked nominalisation.

The classification of the *te .. ai* phrase is more problematic. Here it is argued, in contrast to Bauer, that the *te*-marked base is not a stem nominalisation but is a true verb. It has been shown that *te* can act as a TAM in certain constructions and that its use as a verbal marker should not be entirely unexpected. Therefore the inclusion of either resumptive or resultative *ai* after a *te*-marked verb is entirely predictable and expected. In particular *te* with resumptive *ai* can occur in sentences with fronted adverbials, notably adverbials of future time and reason. *Te* with resultative *ai* can occur in result clauses, dependent action clauses, and in utterances where reference is required to a discourse reason. The reason for the choice of *te* rather than the usual TAM in these examples is not clear, although it has been suggested that it is probably a narrative device.

Bauer included two sentences where *ai* followed a *he phrase*, but there do not appear to be any textual examples of this particular construction. For both examples my consultants preferred non-*ai* constructions to convey the meaning given. The grammaticality of *he .. ai* marking remains uncertain.

6.3 An idiomatic expression with *ai*

There is a construction containing *ai* that appears to be idiomatic. An example will demonstrate:

1756 Ko te mura-nga i mura ai, ..
TOP the flame-NOM TAM flame ai

It was all aflame, .. (Biggs 1997:63)

The fixed structure has a Canga nominalisation followed by an *i .. ai* marked verb:

[DET verb-NOM]$_{NP}$ [i verb ai]$_{VP}$

The subject of the previous example is understood in context. The subject may also be realised as a possessive determiner (1757) or a possessive modifier (1758) of the nominalisation:

1757 Ko tōna wera-nga i wera ai.
TOP his burn-NOM TAM burn ai

And so he was burnt to death. (Ruatapu 1966:20)

1758 Nā ko te whati-nga mai o Taoho i whati mai ai.
now TOP the flee-NOM DIR of Taoho TAM flee DIR ai

Taoho fled. (Pewa 1896:112)

All verb types are possible, although the *i .. ai* verb is always active. Examples include action intransitive (1758), state intransitive (1760) and canonical transitive verbs (1757). The following has *i .. ai* marking a neuter verb:

1759 Ko te mate-nga i mate ai.
TOP the die-NOM TAM die ai

That was the occasion of its death. (Reedy 1993:101)

The construction appears to exaggerate the *i .. ai*-marked action, as shown by the following:

1760 Heoi.anō, ko te hē-nga i hē ai;
well TOP the wrong-NOM TAM wrong ai

That was the serious mistake she made; (Raukatauri 1892:89)

It occurs in dramatic moments in the narratives. This is shown in the following extract where Kae is finally made to laugh and is then identified:

1761 Mutu kau anō tā rātou haka, **tino katanga o Kae i kata ai**, nā, kātahi ia ka mōhiotia e rātou, ka kitea hoki ngā kikokiko o Tutunui e mau ana i ngā niho – he niho tapiki hoki tōna niho. (Grey 1928:30)

After they had finished their song, Kae laughed heartily, and then they recognised him, they saw Tutunui's flesh stuck in his teeth – his crooked teeth.

Analysis of the construction is problematic. One possibility is that the VP is an *ai* relative clause (or for some examples, such as 1757, a possessive relative clause) with the Canga nominalisation its head in an oblique role. Consider the following example:

1762 Heoi.anō, ko te hoki-nga mai i hoki mai ai;
well TOP the return-NOM DIR TAM return DIR ai

In consequence they returned home; (Pewa 1896:111)

If the VP is a relative clause then the underlying sentence would be:

1763 I hoki mai rātou i te hoki-nga
TAM return DIR they cause the return-NOM

They returned because of the returning.

In the following example in which the construction is the complement of a preposition, the *i .. ai* segment is clearly a relative clause:

1764 Ka tō-ia ki uta. ' Ki te takoto-ranga i takoto ai.'
TAM tow-PASS to shore to the rest-NOM TAM rest ai

So she was towed to shore, 'to the resting place where she should lie.' (Jones and Biggs 1995:51)

My main consultant provided literal translations for some of these examples which would accord with the relative clause structure but it is by no means a perfect fit. The sentences are readily interpretable although the actual function of *ai* here remains unclear.

There are 20 examples of this construction in my corpus, mainly from classical texts, and from seven different iwi. It is not widely used by contemporary authors.

Chapter 7: THE DISTRIBUTION OF *AI*

7 Introduction

In this brief chapter the distribution of *ai* is described.

7.1.1 *Ai* in VPs

The rare occurrences of *ai* in NPs were described in the previous chapter. 98% of my *ai* corpus have *ai* in VPs and these are described here.

The main verb of a simple verbal sentence can be marked by habitual *ai*:

1765 Haere ai tātou ki reira.
move ai we to there

We always go there. (Reedy 2001:137)

The main verb can also be marked by resumptive *ai* when the sentence has a fronted adverbial:

1766 He aha hoki i pēnei ai ngā Māori nei?
a what also TAM like.this ai the(pl) Māori LOC

Why were these Maori people acting this way? (Biggs 1997:223)

Most sentences with *ai* are complex sentences. All forms of *ai* appear in these sentences. The *ka* .. *ai* construction with resultative *ai* is arguably a coordinated structure:

1767 Me hoe rawa ki waho rawa, ka hoki mai ai tātou.
TAM paddle EMPH to outside EMPH TAM return DIR ai we

We must paddle further out, and then we will return. (Reedy 1993:95)

In the following complex sentence, resultative *ai* marks the subordinate verb in a highlighted purpose clause:

1768 Kia toa **kia ora ai koutou**!
TAM brave TAM alive ai you

Be brave, that you may live! (Mead and Grove 2001:218)

In the following generated example, habitual *ai* marks the main verb and resumptive *ai* the relative verb of the highlighted relative clause:

1769 Haere ai rātou ia raumati ki te wāhi **i noho ai ō.rātou tūpuna**.
move ai they every summer to the place TAM live ai their(pl) ancestor

They went every summer to the place where their ancestors lived.

Around 90% of the sentences in my database have only one occurrence of *ai*. 10% have two and more than two is quite rare. Many cases of multiple occurrences of *ai* arise through the apposition of phrases, as in the following extract:

1770 E tika ana kia waiho te wai o Waikato hei mea pepehatanga, nā reira nei a Waikato iwi i tupu **ai**, i nui **ai**, i kotahi **ai**, i rangona **ai** e te motu.

It is appropriate that the Waikato river should be the subject of proverbs for it was there that the Waikato tribe originated, increased, united and became known in the land (Biggs 1997:101).

Multiple occurrences of *ai* need not be showing the same use. In the following extract, the first is resumptive *ai* marking a fronted adverbial in a NP, and the second is resultative *ai* as part of a purpose clause:

1771 Ā, hei āwhea rā te tae mai **ai** kia hohoro **ai** te patu iho i ēnei, i a Ngāti Raukawa?

Ah, and when will they arrive so that we may speedily destroy these Ngāti Raukawa (Biggs 1997:249)?

In VPs *ai* co-occurs with only four TAMs; *ka, kia, e,* and *i*. The verb may also have no TAM. The following Table shows the relative co-occurrence of *ai* with TAMs (and determiners) in my corpus:

TAM	Number	%
i	1029	42
none	649	26
kia	359	14
e	245	10
ka	158	6
determiner	37	2
Total	2477	100

Table 9: Verbal particles and *ai*

Ai does not co-occur with the TAMs *kei te, i te, e .. ana, ana, ina*, *ki te*, or *kua* in my corpus. There is one example where it co-occurs with the TAM *kei*, from a narrative by Pita Kāpiti (1544, repeated in part here):

1772 .. kei riri ai te kūmara, arā a Rongo-marae-roa.
TAM angry ai the kūmara that.is PER Rongo-marae-roa

.. as this would anger the kūmara – that's to say, Rongo-marae-roa. (Reedy 1997:64)

This is an unusual combination of particles. The common method of expressing this sort of prohibition is to use *kia kore ai* as in 1773, or *tē* as in 1774:

1773 .. kia kore ai e hoki ki te moana.
TAM NEG ai TAM return to the sea

.. so that they couldn't return to the sea. (Biggs 1997:5)

1774 Nō reira au tē haere atu ai.
therefore I NEG move DIR ai

Therefore I would not go. (Stowell 1911:66)

Ai does not normally co-occur with the TAM *me.* I have found one example from a modern text and am unable to account for its occurrence:

1775 .. kua mōhio ahau me pēhea ai ināianei.
TAM know I TAM act.how ai now

.. I had known what could now be done. (Reedy 2001:163).

7.1.2 *Ai* in narratives

All narratives

All eight of the constructions described in the previous three chapters are found relatively freely in Māori literature. The following graph shows the relative occurrences of *ai* in the eight constructions described in Section 3.1 from all the sentences in my database found in narratives, waiata and whakataukī. A total of 2416 sentences were used in this particular analysis (the values given are percentages):

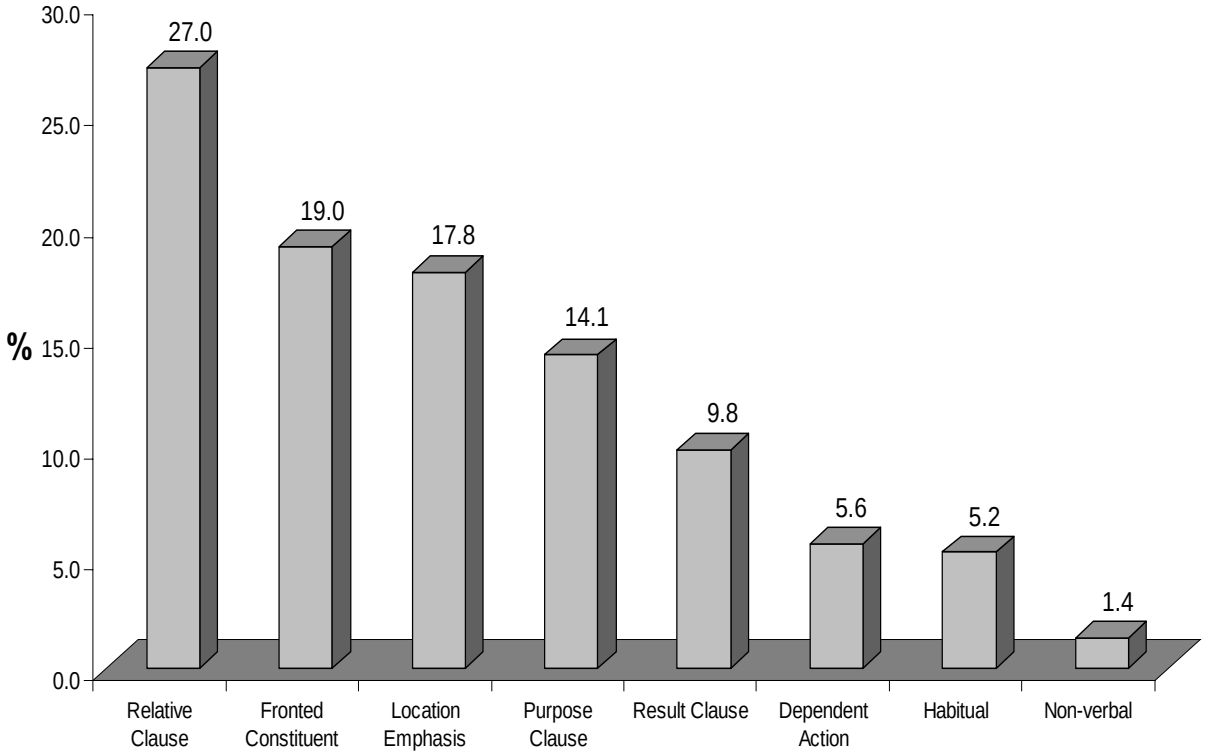

Figure 6: Distribution of *ai*

Resumptive *ai* is the most common form, accounting for nearly two thirds of all occurrences. Resultative *ai* is found in 30% of my database. Habitual *ai* occurs less frequently that the attention it has received in the grammars would lead one to expect. As expected, non-verbal uses of *ai* are the least commonly occurring of the eight constructions described above.

Changes over time

All sentences that contain *ai* found in the narratives have been collated for both time frames. The following graph contains the proportions for each of the eight constructions described in Section 3.1 for both time frames:

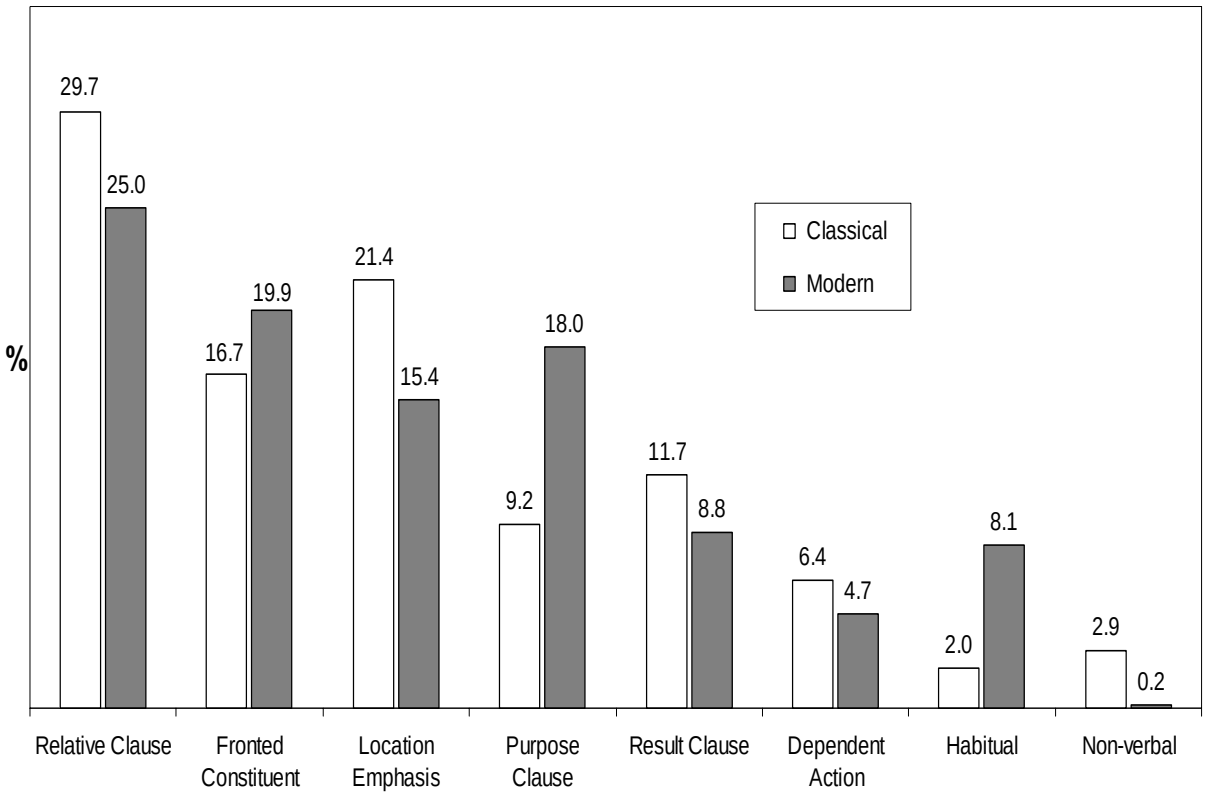

Figure 7 Changes in the frequency of uses of *ai*

The data show that the use of *ai* is still productive for all verbal constructions. There has been no major change in the frequency of use of resumptive *ai*—the first three data points. The increase in appearance of resultative *ai* in purpose clauses over time has already been observed. Most interesting is the increase in the use of habitual *ai* and the virtual disappearance of *ai* in non-verbal phrases. It is not hard to see why this may have occurred. In the classical texts there is considerable dialectal variation in describing habitual action and classical Māori probably employed a wider range of constructions for describing habitual action than that available to modern Māori writers. Habitual *ai* is described in most Māori grammars, is a relatively straight-forward construction, and easily incorporated in a speaker's competency. In contrast, the use of *ai* in non-verbal situations is poorly understood, has received no adequate explanation in any Māori grammar available to me, and, perhaps as a consequence, is now rarely employed. It could thus be argued that these changes in the use of *ai* could be due, at least in part, to a standardisation that may be occurring in the

language under the influence of formal language learning and the associated influence that grammar texts have on language learners.

7.1.3 The frequency of *ai*

Ai is a commonly occurring particle in my corpus of classical narratives. Concordances carried out on a number of classical texts show that on average it is the 23rd most commonly occurring word. This is a higher frequency of use than, for example, the TAMs *kia*, *kua*, and *me*, and all the demonstratives, a result which surprised some of my consultants. The following table contains data showing the occurrence of the particle *ai* in a number of classical texts:

Text	Number of *ai*	Rank of *ai*	% *ai* by Words	% *ai* by Sentences
Ngā Kōrero a Pita Kāpiti	94	21	0.59	10.69
Ngā Kōrero o Mohi Ruatapu	164	20	0.66	9.44
Nga Mahi a nga Tupuna	484	24	0.59	9.78
Ngāti Whātua Narratives	48	28	0.64	6.15
Pāora Tūhaere ms	28	22	0.82	11.67
Traditional Māori Stories	121	27	0.56	8.84
Total	**939**			
Mean	**134.1**	**23.7**	**0.64**	**9.43**
STD	**167.8**	**3.3**	**0.09**	**1.89**

Table 10: *Ai* in classical narratives

The results show that there is very little variation in how regularly *ai* appears in the various texts. On average nearly 10% of the sentences in any classical narrative will contain at least one copy of *ai*. When reading these texts you would expect to encounter *ai* approximately every 150 words. Indeed the use of *ai* in classical Māori is so regular that the number of *ai* in a particular text is a fairly good predictor of the length of that text, whether the text length be measured in sentences or words. There does not appear to be any significant dependence of the frequency of use of *ai* on the dialect of the author in these classical narratives.

Ai is not as frequently occurring in modern narratives as it is in their classical counterparts. Concordances of a number of modern texts shows that on average *ai* is the 40th most frequently occurring word. Unlike the classical narratives there is a large variation between modern texts in their frequency of use of *ai*. The following table contains the data showing the occurrence of the particle *ai* in a number of modern texts:

Text	Number of *ai*	Rank of *ai*	% *ai* by Words	% *ai* by Sentences
Huia 1997	77	32	0.56	8.05
Huia 1999	94	25	0.55	8.22
Nga Iwi o Tainui	486	22	0.59	11.68
Tāwhaki Nui a Hema	126	33	0.57	8.31
Te Whānau Moana	73	32	0.54	9.22
Te Whenua Kauruki	65	68	0.26	3.18
The Tribes of Muriwhenua	40	76	0.21	3.58
Total	**961**			
Mean	**137.3**	**41.1**	**0.47**	**7.46**
STD	**156.0**	**21.6**	**0.16**	**3.05**

Table 11: *Ai* in modern narratives

On average just over 7% of the sentences in these modern texts contain at least one copy of *ai*, with *ai* appearing approximately every 212 words. This represents a 23% decrease in the frequency of use of *ai* over time. However this data is somewhat misleading as the variation between texts in the frequency of use of *ai* is very large, and each text should really be considered separately. *Nga Iwi o Tainui,* for example, shows a frequency of use of *ai* which matches that of any classical text in my corpus.

It does not appear that this variation in the frequency of use of *ai* in modern texts can be accounted for in terms of the different dialect of the author. The Huia Series, for example, is a collection of narratives written by a number of writers of different dialects. Close analysis of these narratives

shows that the frequency of use of *ai* varies as much between authors of the same dialect as it does between those who claim to speak a different dialect.

It is not being suggested here that modern Māori narratives, such as those collected in the Huia series, are inferior to classical narratives, or that a generally lower frequency in the use of *ai* suggests that they contain sentences which are not well formed. Indeed these texts are produced by some of the most respected and competent contemporary speakers of Māori. The point being made here is that there is greater variation in the use of *ai* than appears to have been the case in classical times. Some authors who do not use *ai* as frequently as others are employing other sentence forms and constructions to represent the same discourse functions.

Chapter 8: CONCLUSIONS

Introduction

This thesis has presented an analysis of the particle *ai* in New Zealand Māori. Although based on textual examples, consultants have been used regularly to ensure spoken Māori is also represented. A very large corpus of *ai* sentences have been analysed, and observations have been made about changes in the use of the particle between two clearly delineated time frames, classical (19th Century) and modern (post 1960).

It has been argued that Māori speakers make a formal distinction between habitual *ai*, which marks an action or state as habitual, and anaphoric *ai*, which always refers the listener to some prior element in the discourse. It has been further argued that anaphoric *ai* exists in two distinct forms, resumptive *ai* and resultative *ai*.

Resumptive *ai* acts as a NP anaphor for an oblique NP located earlier in the discourse. Resumptive *ai* is found in relative clauses, in sentences with certain adverbials located before the main verb, and in complex sentences where the *ai*-marked action occurs at a previously specified location. Resumptive *ai* is required grammatically, its inclusion is obligatory, and its deletion results in ungrammatical sentences. Resumptive *ai* is arguably the older form of the particle.

Resultative *ai* does not resume a specific NP but refers instead to an element in previous discourse and creates a causal dependency between its clause and the prior element. In general there appears to have been an outgrowth of the original NP anaphor function of *ai* to the role of an interclausal marker of cause. Resultative *ai* is found in purpose clauses, in dependent action clauses, in result clauses, and in subsequent action clauses. Resultative *ai* adds meaning to its clause. It is not required grammatically so its inclusion is arguably optional, but its removal often makes the sentence illogical.

Ai is generally regarded as restricted to VPs, however there are too many textual examples of its use in NPs to be ignored. Here it has been argued that *te* can be viewed as a verbal marker and that the inclusion of *ai* after a *te*-marked verb can be accounted for as expected manifestations of anaphoric or habitual *ai*.

Throughout the thesis observations have been made about temporal changes in the various uses of *ai*. It is somewhat encouraging that almost all constructions have shown considerable consistency in their use over time and are still productive. The marked exceptions are the spread in the use of habitual *ai*, and the decline in the use of *ai* in NPs (which was always a minor use).

Resumptive *ai*

In relative clauses, resumptive *ai* resumes an oblique NP that is the head of that clause. It does not resume the nominative case. *Ai* only appears in relative clauses for past and future tense. Its inclusion is obligatory unless its position is taken by *ana* or a locative particle. Deleting *ai* creates ungrammatical sentences. The following example is typical, with the relative clause highlighted:

1776 Kei hea te wāhi **i mahi ai taku tama**?
at where the place TAM work ai my son

Where is the place where my son worked?

The underlying sentence has the head as a location PP introduced by *i*:

1776a. I mahi taku tama i taua wāhi.
TAM work my son at that place

My son worked at that place.

Resumptive *ai* resumes adverbials of reason, time, means, and location that are located before the main verb. Usually only phrases are resumed by *ai*, although some means clauses require *ai*. *Ana* or a locative particle can not replace resumptive *ai* in this use. The following example is typical, with a fronted time phrase:

1777 I tērā tau, i mahi ai taku tama i taua wāhi.
at that year TAM work ai my son at that place

Last year my son worked at that place.

Alternate verb marking is possible, with *ka* being the most common:

1778 I tērā tau, ka mahi taku tama i taua wāhi.
at that year TAM work my son at that place

In many cases the *ai* form is preferred where the adverbial is the focus of the utterance and other forms are used where the adverbial is topical. In other situations the reasons for the choice between forms is unclear.

In certain complex sentences resumptive *ai* is part of a second clause which follows a prior clause that contains a specified location. *Ai* resumes this location in its clause. The location is an obligatory prior component of the sentence's prior clause and the verb marked by *ai* is always active in form, even where it is passive in meaning. *Ana* or a locative particle can not replace resumptive *ai* in this use. Its inclusion is obligatory. The following example is typical:

1779 I haere taku tama ki taua wāhi, mahi ai.
TAM move my son to that place work ai

My son went to that place to work there.

Resultative *ai*

The combination of *kia* with *ai* is specifically reserved for purpose clauses. In these clauses *ai* indicates that the action previously described and referred to by *ai* was carried out for the specific purpose of the action or state described by the *kia .. ai* clause. *Ai* is not obligatory in purpose clauses but it does give the specific intent meaning and its deletion would weaken this entailment of clauses. *Ai* cannot be replaced by *ana* or a locative particle in purpose clauses. The following is a typical example of a sentence with a highlighted purpose clause:

1780 I ako taku tama i te ture **kia mahia ai tēnei momo mahi**.
TAM learn my son ACC the law TAM work ai this type work

My son learnt the law so that he could do this kind of work.

The combination of *ka* with *ai* is usually reserved for indicating a temporal dependence between its clause and some element in prior discourse. In dependent action clauses *ka .. ai* marking asserts that the action or state is dependent on a previous action that the presence of *ai* draws the listener's attention to. The sense of 'and then' is added to the clause. *Ai* is not obligatory but its deletion weakens the sense of dependency. It cannot be replaced by *ana* or a locative particle. The most common construction involves a string of imperatives:

1781 Me haere koe ki te tari **ka tuhi ai i te pūrongo**.
TAM move you to the office TAM write ai ACC the report

You should go to the office and then write the report.

Ka .. ai marking may also be used when an action is dependent upon a previously specified time, where it adds an 'only then' meaning to its clause. The following is typical:

1782 Kia oti te pūrongo i a koe, **ka whāki ai ki te kaiwhakawā**.
TAM finished the report by PER you TAM disclose ai to the judge

When you have finished the report then you can show it to the judge.

Ka .. ai marking is occasionally found in result clauses, but the usual marking is *i .. ai*. Many are introduced by *nā*/*nō reira*, and *ai* marks the verb as resultative and refers the listener to a previous reason for the outcome being described. The following example is typical:

1783 He pai rawa te pūrongo, **nō reira i riro ai te nanakia ki te whare**
CLS good EMPH the report therefore TAM taken ai the scoundrel to the house
here-here.
bind-DUPL

The report was excellent and so the scoundrel went to prison.

Resultative *ai* is sometimes found in situations where resumptive *ai* is excluded.

Habitual *ai*

In classical times habitual *ai* appears to have been used by speakers from the Eastern and Central regions of the North Island, but nowadays it enjoys wider usage. Contrary to indications from grammar texts and school Māori language curricula, habitual *ai* was a minor method of indicating habitual aspect although its use is now much more popular. Habitual *ai* is defined here as a TAM. Any relationship it has with the anaphor is not obvious. The most usual construction is for *ai* to mark the verb on its own, as follows:

1784 Mahi ai taku tama i ngā wā katoa.
work ai my son at the(pl) time all

My son works all the time.

Because habitual *ai* is a TAM it is obligatory and cannot be deleted. Habitual *ai* adds habitual aspect to its verb and may be used for either present or past tense.

Habitual *ai* marks the main verb in the example above and this is the commonest construction. It may also mark the verb in a relative clause, either on its own, or in combination with the TAMs *e* and (possibly) *i*:

1785 Ko Adrien te tangata (e / ?i) mahi ai i ngā wā katoa.
TOP Adrien the person TAM work ai at the(pl) time all

Adrien is the person who works all the time.

Resumptive *ai* would not be expected in the previous example because the head of the relative clause is the subject of the underlying sentence. However habitual *ai* is not excluded. A number of previously unexplained textual examples like 1785 have been found and accounted for using this argument.

Further Work

The hypothesis proposed here for *ai* accounts for the vast majority of sentences in my corpus. It is somewhat satisfying that those unaccounted for also appear to completely perplex native speakers.

These unexplained sentences may contain some element of the language that is completely lost, or they may simply be errors. An example follows:

1786 Kia oti te tā o ēnei, kātahi te tino kōtiro nei kei muri ai
TAM finished the tattoo of these then the very girl LOC at after ai
i tā-ia ai.
TAM tattoo-PASS ai

After they are done, the chiefly girl is tattooed. (Biggs 1997:179)

This sentence has a fronted time adverbial and the final *ai* is, perhaps, predictable. However the first *ai* is most puzzling. In *kei muri ai* the particle *kei* is a location preposition. The appearance of *ai* in this phrase baffles my consultants. Similarly the often quoted example from Bigg's text book is also not favoured by my consultants:

1787 Koia nei te poaka i pūhi-a ai e taku matua.
this.is LOC the pig TAM shoot-PASS ai by my father

This is the pig which was shot by my father. (Biggs 1973:122)

The underlying sentence has the head of the relative clause as its subject:

1787a. I pūhi-a te poaka e taku matua.
TAM shoot-PASS the pig by my father

The pig was shot by my father.

Resumptive *ai* does not resume the nominative case. My hypothesis could account for this example only if the *ai* in the relative clause is habitual *ai*, which is unlikely (unless he was a very bad shot).

Perhaps further work would account for such examples as these.

Throughout this thesis questions have arisen about the possessors *a* and *o*, and in particular the criteria used for selecting between the two forms. Although many examples are predictable, there are enough counter examples to suggest that this topic requires some serious study. Consultants regularly mentioned that they were unhappy with the generalisations often made in grammar texts on the criteria for choosing between *a* and *o*.

The particle *hei* requires further analysis. Classification of this particle is problematic, as it can freely mark both nouns and verbs, and appears capable of acting as a TAM, a determiner, and a preposition. There is some debate in the literature about its nature.

Māori language awaits further study on dialect. Patterns in the uses of *ai* have been alluded to throughout this thesis, but generally the iwi who appear to use particular forms have simply been

listed. A detailed analysis of regional variations in Māori would clarify these patterns described here.

This work has focussed on the particle *ai* found in New Zealand Māori. The particle *ai* (or *ei*) is also found in other Polynesian languages, and the results of this analysis may be of some interest to anyone studying those languages.

Nō reira e hoa mā, kua ū mai te waka, ki te takotoranga i takoto ai.

Tēnā koutou, tēnā koutou, tēnā tātou katoa.

Appendix

Listed below are the narratives from which sentences containing *ai* have been extracted. Classical texts consist of those narratives written prior to 1900. Modern texts consist of those written after 1960. In the classical and modern texts cited all sentences containing *ai* have been included in the *ai* corpus. This enables analysis of changes in the uses of *ai* over time.

Sentences containing *ai* from narratives written between 1900 and 1960 have also been included in the database, but are not used when making temporal comparisons.

A list of other sources of *ai* sentences has also been included here, as well as list of the Māori grammars cited in the thesis.

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