

HAE.RE VS. HA.E.RE: A NOTE

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1 Introduction

There are two conflicting phonological word-divisions in Maori, each of which is required in order to state certain rules of the grammar. Currently, only one term, 'syllable', is in general use, and there are times when this leads to confusion. It is the purpose of this note to propose a terminological distinction, and to outline some of the main rules which must refer to each of the divisions.

Consider *haere*: it can be divided (a) *hae.re*, or (b) *ha.e.re*; *paatai* can be divided (a) *paa.tai* or (b) *pa.a.ta.i*. In the (a) division, one unit may have the shapes (C)V(V); in the (b) division, one unit has the shape (C)V. Thus in the (b) division, each short vowel (with a preceding consonant if there is one) constitutes a separate unit. I propose that the term 'mora' should be adopted for the units of the (b) division, and that 'syllable' should be restricted to the (a) division so that *haere* has two syllables, but three morae, and *paatai* has two syllables, but four morae. In many instances the need for the mora can be avoided by referring to vowels only, but there are some rules where this escape route is not possible. A mora, then, is a unit of the form (C)V, while a syllable is a unit of the form (C)V(V).

2 The Syllable

The syllable, as defined above, is the unit in terms of which rules for stress must be stated. Consider, for example, the following main rules for word stress given by Biggs (1969: 132):

- "1. Stress the first double vowel if there is one ...
2. If there is no double vowel stress the first non-final diphthong ...

3. If there is no double vowel and no non-final diphthong stress the first vowel which is not more than four vowels from the end of the word."

(Note that very similar rules are given by Hohepa (1967: 10), but 'non-final' is omitted from the rule corresponding to 2 above. To judge from stress assignments by a small number of informants, this appears to be a dialect difference, Biggs' rules describing stress in Eastern dialects, and Hohepa's describing stress in Western dialects.) These rules assign stress as in the following examples:

'koorero, tau'toohito, 'roopuu, ka'raa; 'wairangi, pa'raikete, 'marae, 'katoa (for Hohepa, ma'rae, ka'toa); 'tamariki, 'matau, ka'hikawaka.

These rules can be stated only very clumsily in terms of the mora, since the stress rules imply a hierarchy of syllable-types according to the nature of the vowel(s): (C)V_xV_x > (C)V_xV_y > (C)V, while each mora has the structure of the last of these syllable-types. For example, Rule 1 above would have to read something like this, if formulated in terms of morae:

If a word contains two consecutive morae where the second has no initial consonant, and where the vowel in the second is identical to the vowel in the first, then the stress will fall on the first mora of the first such pair in a word.

Thus the syllable as defined above allows for a much more economical description of Maori stress.

3 The Mora

The mora and not the syllable, however, is the division used in most other rules which refer to word divisions.

3.1 Reduplication

There are two major patterns of productive reduplication in Maori.

(1) Final Reduplication

This type of reduplication involves the reduplication of the last two morae of a stem. There are three cases to be considered.

(a) With stems of four or more morae, the rule operates simply, thus:

a.a.hu.a a.a.hu.a.hu.a

hi.i.ke.i hi.i.ke.i.ke.i
ma.a.ku.u ma.a.ku.u.ku.u.

(b) With stems of three morae, the vowel of the first mora is reduplicated in addition to the reduplication of the last two morae in the majority of instances, e.g.

ha.e.re ha.a.e.re.e.re
ma.ha.ra ma.a.ha.ra.ha.ra.

Williams' dictionary lists a few exceptions which do not reduplicate the first vowel, e.g.

ha.ngu.ru ha.ngu.ru.ngu.ru,

but it has been suggested to me (Bruce Biggs, personal communication) that these forms may be in error. The reduplication of the first vowel is inexplicable in terms of the general pattern for final reduplication, but it may serve to retain a stress on the stressed syllable of the simple form, compare

'ha.ngu.ru
ha.'ngu.ru.,ngu.ru
,ha.a.'ngu.ru.,ngu.ru.

(c) With stems of two morae, both are reduplicated, e.g.

hu.i hu.i.hu.i
a.ko a.ko.a.ko
tu.u tu.u.tu.u.

(2) Initial Reduplication

The second type of reduplication, often associated with a different semantic effect, involves reduplication of the first mora of a two-mora stem, thus:

ra.ka ra.ra.ka
pi.i pi.pi.i
ma.e ma.ma.e.

The equivalent for longer stems appears to involve reduplication of the first two morae, e.g.

ka.pe.ta.a ka.pe.ka.pe.ta.a,

but examples of this kind are not particularly common.

Neither of these two patterns of reduplication can be described adequately in terms of the number of vowels in the stem, since it is the vowel together with any preceding consonant

which reduplicates. Neither can the rules be stated in terms of syllables, since, for example *haere* (with two syllables) does not reduplicate like the two-syllabled *ako*: we do not find **haerehaere*. These two facts necessitate the recognition of the mora.

3.2 Imperatives

In forming the imperatives of intransitive verbs, *e* is required before imperatives containing two morae or less. Thus

E tuu!

E kai!

E noho!

but

Haere!

Whakarongo!

Again, the rule cannot be stated in terms of syllables, since *noho* and *haere* each have two syllables, but behave differently with respect to this rule. The rule is usually stated in terms of the number of vowels in a stem (e.g., Biggs, 1969: 60), and this is always possible, but it should be obvious that, once the need for the mora is recognized, the rule is more appropriately stated in terms of morae.

3.3 Vocatives

In a fashion similar to imperatives, *e* is required before vocatives containing two morae or less. Thus

E Mere!

E Wii!

but

Hoone!

Wiremu!

Again, the syllable cannot be used, since *Mere* and *Hoone* each have two syllables.

3.4 Rhythm

Here I venture into a rather more speculative area. The world's languages are commonly divided into two major rhythmic types: stress-timed (e.g., English) and syllable-timed (e.g., French). In a stress-timed language, the stresses occur at approximately equal intervals of time; in a syllable-timed language, syllables

are approximately equal in length. In addition, some phonologists recognize a third type of rhythm: mora-timing (see, e.g., Donegan, 1978: 53 and references therein). Donegan describes mora-timing as follows:

"... when there is a distinction made between short (one-beat) and long (two-or-more beat) syllables, so that each short vowel (...) is mapped onto one 'beat' or time-interval, and each long vowel is mapped onto two, the language is said to be iso-moric, or mora-timed."

Maori does not appear to me to be either stress-timed or syllable-timed, given the definition of syllable above. However, I believe it to be mora-timed. It might be expected that poetry would provide the proof of this, since it is usual for the rhythm of a language to form the basis of poetry: thus in English, it is the patterns of stresses which determine a line of poetry, but in French, the number of syllables. In the majority of texts of Maori poetry as printed, this expectation is not fulfilled. However, Biggs in 'Traditional Maori Song Texts and the "Rule of Eight"' (Biggs, 1980) suggests that each half line of a *waiata* contains eight vowels. Thus, in the terms suggested here, each half line consists of eight morae. If this is correct, then the expected correlation between the rhythm of the language and the structure of the poetry does indeed occur: the mora is the basis of both.

There are two further points which must be noted in conjunction with this. Firstly, in order to maintain the claim above, Biggs posits that certain rising diphthongs: *ai*, *ei* and *au*, may constitute either one mora or two; thus some modification of the definition of a mora suggested here would be required. Secondly, the other rules discussed in section 3 are morphological, and it might have been the case that the mora was the word division used in morphological rules, while the syllable was the division used in phonological rules. However, rhythm is indubitably phonological, and thus both the syllable and the mora must be recognised as phonological word-divisions.

4 Slow Articulation

One further piece of evidence that both units of structure are psychologically real for native speakers of Maori is their responses to requests for a word to be said slowly to facilitate spelling. Some respond with one syllable at a time, others with one mora at a time. Thus *waenganui* is sometimes rendered *wae.nga.nui*, and sometimes *wa.e.nga.nu.i*. However, it is worth noting that long vowels have never, in my experience, been split

into morae; thus *kurawaawawai* is rendered as

ku.ra.waa.wa.wa.wa.i

or *ku.ra.waa.wa.wa.wai*

but not as *ku.ra.wa.a.wa.wa.wa.i*.

This seems to indicate that a long vowel is considered as one unit, not two, despite the fact that in a number of rules, its division into two morae is required.

5 Concluding remarks

It has been shown that the rules of Maori necessitate the recognition of two different units of word structure, the syllable with form (C)V(V), and the mora with form (C)V. For scholar and learner alike, it seems desirable that the existence of two divisions should be recognized by two distinct terms. It is to be hoped that the term *mora* will gain acceptance, and supply a need in the descriptive terminology for Maori.

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