VERBAL ALTERNATIONS IN LAI

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INTRODUCTION

Lai verbs have three different forms:

- •Matrix—Form 1
- •Subordinate—Form 2
- •Causative

Many verbs distinguish between these forms phonetically while others retain a single form throughout. Verbs which do distinguish between the forms usually have morphophonemic alternants, expressing either matrix ~ subordinate or matrix ~ causative forms. Moreover, these alternations display several diverse morphophonemic patterns.

In this paper I will try to account for the verbal alternations in Lai. First I will describe them and provide examples. Then I will propose a moraic analysis which will account for the alternations. Finally, I will assess the predictive power of my analysis.

My data comes from two different sources. I have a small lexicon of 300 words, which I elicited from Ken Van-Bik, a native speaker of Lai. In this lexicon I have approximately 40 examples of non-alternating verbs and 56 pairs of alternating verbs. Additionally I looked at 246 non-alternating verbs and 275 alternating verb pairs in the STEDT database. The statistics given in this paper are based solely on the STEDT database.

BACKGROUND

The Glottal Stop

The glottal stop in Lai is a phenomenon that requires further explication. I have detected three environments in which the glottal stop occurs:

- •Word-initially before a vowel (short or long) or a diphthong.
- •Word-medially in a syllable of the form CV?C in which the vowel is short and the final consonant is a nasal or a liquid.
- •Word-finally in a syllable of the form CV? in which the vowel is short.

Consequently, I assume that glottal stops in Lai cannot be preceded by long vowels. Moreover, within the syllable domain the glottal stop cannot be followed by a stop.

DESCRIPTION AND EXAMPLES

The broadest generalization that I can induce from the data is that the alternation patterns correlate with the manner of articulation of the final segment of the matrix verb. It should be mentioned that the choice of word-final and syllable-final consonants in Lai is extremely restricted: only [ʔ, p, t, k, m, n, ŋ, r, l] and vowels may appear in word-final position. In the following section I will list a number of generalizations, arranged according the manner of articulation of the final segment of Form 1, and provide examples. The analysis is purely phonological and therefore I will disregard the semantics of the verb forms and simply label them 'Form 1' and 'Form 2'.

Stop-Final

Form 1 verbs ending with [p, t, k] alternate with glottal-stop-final Form 2 verbs. The database contains 56 instances of this alternation. There are also 35 "intrinsic" glottal-stop-final verbs in the database; these are *invariant* (i.e., they do not distinguish morphophonemically between Forms 1 and 2).

segment	Form 1	Form 2	gloss
p	thep	theʔ	'blink'
t	luut	luʔ	'enter'
k	faak	faʔ	'ache'
ʔ	fiʔ	fiʔ	'detest'

Liquid-Final

Liquid-final Form 1 verbs alternate with Form 2 verbs in which the final consonant is preceded by a glottal stop. There are 30 instances of this alternation in the database.

segment	Form 1	Form 2	gloss
l	zeel	zeʔl	'surround'
r	mer	meʔr	'turn, twist'

Nasal-Final

Form 1 verbs ending with [m, n] undergo the same alternation as liquid-final verbs, that is, a glottal stop is inserted before the last consonant in Form 2 (45 instances). Velar nasal-final Form 1 verbs have two different patterns of alternation. Twelve forms in the database alternate on a par with the other nasals, and 53 verbs replace the final velar-nasal with an alveolar nasal.

segment	Form 1	Form 2	gloss
m	zoom	zoʔm	'deride'
n	hlon	hloʔn	'throw'
ŋ	buŋ	buʔŋ	'tip over'
ŋ	khuaŋ	khuan	'crow'

Diphthong-Final

Diphthong-final Form 1 verbs alternate with Form 2 verbs in which a glottal stop is inserted before the last vowel of the diphthong. The database contains 38 diphthong-final Form 1 verbs with as many as 10 different diphthongs.

segment	Form 1	Form 2	gloss
au	dau	daʔu	'make war'
oi	noi	noʔi	'be muddy'
aau	haau	haʔu	'provoke'
eu	tseu	tseʔu	'shine'

Vowel-Final

Form 1 verbs which end with long vowels alternate with stop-final Form 2 verbs (41 instances). In some cases the vowel is shortened before the final stop in Form 2. The final stops in Form 2 are [k, t, ʔ]. No instances of [p]-final Form 2 verbs were found in the database, although there are no general restrictions on its appearance in word-final position in the language.

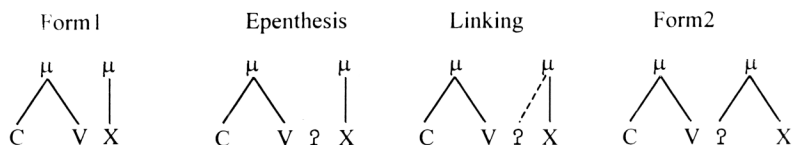| segment	Form 1	Form 2	gloss
ii	thii	thiʔ	'die'
ee	hnee	hneek	'urge, push'
uu	thluu	thluuk	'fall down'
oo	zoo	zoot	'be sick'
aa	raa	rat	'come'

MORAIC ACCOUNT OF THE VERBAL ALTERNATION

Lai verbs are always monosyllabic. The glottal stop in Lai cannot be followed by a consonant other than a liquid or a nasal. In fact, according to my data, this seems to be a derivative of a more general rule, which prohibits stop clusters in the language. The only consonant combinations in Lai are the four affricates [tl, thl, ts, tsh] and the ?-liquid/nasal cluster.

Glottal Stop Epenthesis

I propose that a glottal stop must be initial in its mora. Glottal Stop Epenthesis is the process that creates Form 2 verbs from Form 1 verbs (when the verb is an alternating verb). The glottal stop is inserted before the last segment of the Form 1 verb. This rule is applied to all alternating Form 1 verbs except for the vowel-final verbs and a subset of velar nasal-final verbs.
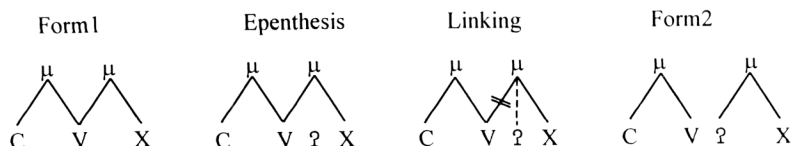
•After a short vowel

A glottal stop is inserted before the last segment (X can be a vowel or a consonant). Since, as I propose, the glottal stop has to be initial in its mora, the stop is linked to the second mora.

Form 1   Epenthesis   Linking   Form 2

μ   μ   μ   μ   μ   μ   μ   μ
/\ | /\ | /\ /| /\   /\
C V X   C V ? X   C   V ? X   C V ?   X

•After a long vowel

A glottal stop is inserted before the last segment. In this case the glottal stop is linked to the second mora. However, in order to respect the requirement that it be first in the mora, the vowel is de-linked from the second mora. This results in vowel shortening.

Form 1   Epenthesis   Linking   Form 2

μ   μ   μ   μ   μ   μ   μ   μ
/\ /\   /\ /\   /\ /| /\   /\
C V X   C V ? X   C   V ? X   C V ?   X

•Sample Derivations of the Alternation

•*Stop-Final:*   For stop-final Form 1 verbs an additional step is required. In order to avoid a stop cluster in the final position of the Form 2 verb, the final