Truncation of Sanskrit and Pali Loanwords in Thai

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1.   Introduction

Truncation, such as that caused by reduplication or by hypocoristics, has been extensively studied in prosodic morphology. In prosodic phonology, however, truncation has not had much attention paid to it, especially, truncation due to language contact. This paper investigates the truncation patterns of Sanskrit and Pali words in Thai; the former being predominantly polysyllabic and the latter monosyllabic. I argue that these truncation patterns are basically the manifestation of a constraint whereby Thai words must end in bimoraic heavy syllables.

From two Thai dictionaries[1], 800 loanwords (nouns) are collected and their melodic patterns are compared with their original Sanskrit and Pali words.[2] The melodic correspondence between the Indic and corresponding Thai words can be summarized as follows. Sanskrit and Pali loanwords which end in long vowels are never truncated in Thai (e.g. vidii --> withii 'method'). Those ending in a [+high] short vowel tend to resist truncation and gain a glottal stop after the vowel (e.g. sati --> sati? 'mindfulness'). There are a large number of Sanskrit and Pali words which lose a word final short vowel in Thai (e.g. jiivita --> chiiwít 'life'); and some may lose two segments (a consonant and a short vowel) in the word final position (e.g. citta --> chìt 'mind'). Still others may lose three segments at the end of a word; that is, -ccv# (e.q. candra --> can 'moon') or -vcv# (e.g. vacana --> phot 'word').

This paper, based on the theoretical constructs of Moraic Phonology (Hayes 1989), argues that all of the above truncation (and non-truncation) patterns can be accounted for simply by: (i) the postulation of a bimoraic heavy syllable template, which has the stipulation of being mobile; and by (ii) just one type of syncope: -v# --> Ø. The template is placed at the right edge of the base which consists of both melody and associated prosodic structure. If the template is not satisfied at this position, the template must move leftward to the next available position. This movement of the template conditions the syncope of a word final short vowel. This syncope (-v# --> Ø) then triggers the application of a set of rules for resyllabification,

such as parasitic delinking, stray erasure, and the application of a well-formed condition on a syllable. The template is again imposed on the rightmost syllable of the base which has just undergone the resyllabification. If the template is satisfied, segmental adjustment and tone assignment are implemented to derive the surface form. If, however, the template is not satisfied for one reason or another, it must move leftward again, conditioning another application of resyllabification.

The outline of the paper is as follows. In Section 2, I will show the various truncation patterns observed in the data I have collected. In Section 3, I will introduce Moraic Phonology (Hayes 1989). In Section 4, I will demonstrate, for each truncation pattern, the prosodic derivations of loanwords.

2. Truncation Patterns

First of all, Indic loanwords which end in long vowels are never truncated:

(1)

karuṇaa	(P, S)	karunaa	'compassion'
gaathaa	(P, S)	khaathǎa	'verse'
naarii	(P, S)	naarii	'girl'
viññuu	(P)	winyuu	'sage'
vidhii	(P, S)	withii	'method'
paaraguu	(P)	paarákhuu	'saint'

Indic loanwords which end in [+high] short vowels tend to resist truncation. Glottal stops are then obligatorily inserted after the vowels:

(2)

sati	(P)	satì?	'mindfulness'
samaadhi	(P)	samaathì?	'concentration'
pitu	(P)	pitù?	'father'
yaagu	(P)	yaakhù?	'rice gruel'
Exceptions:[3]			
jaati	(P,S)	châat	'race'
dhaatu	(P,S)	thâat	'element'

There are countless instances of Sanskrit and Pali words which lose word-final short vowels in Thai. This should be regarded as the unmarked pattern of truncation:

(3)

kaara	(P, S)	kaan	'maker'
jiivita	(P, S)	chiiwít	'life'
deva	(P, S)	thêep	'deity'
puthujana	(P)	buthuchon	'common folk'
phala	(P, S)	phǒn	'fruit'
vipaaka	(P)	wibàak	'calamity'

Some Indic words may lose two segments (a consonant and a short vowel) in word-final position:

(4)

citta	(P, S)	chìt	'mind'
netra	(S)	nêet	'eye'
parisuddha	(P)	borisùt	'purity'
pakṣa	(S)	pàk	'a half moon'
varga	(S)	wák	'paragraph'
sangha	(P)	soŋ	'Buddhist order'

Some of the Indic loanwords may lose even three segments. The examples in (5) show the loss of -vcv# in word-final position:

(5)

koonaagamaṇa	(P)	koonaakhom	'a Buddha'
prayojana	(S)	prayòot	'advantage'
vacana	(P, S)	phót	'word'
vetana	(P, S)	wêet	'wages'
sampuuraṇa	(P)	sòmbuun	'full'
paccavekkhaṇa	(P)	patcawêek	'contemplation'

The Indic loanwords in (6) are examples of those which lose -ccv# at word-final positions:

(6)

kosindra	(S)	koosǐn	'name for Indra'
candra	(S)	can	'moon'
yantra	(S)	yon	'mechanical device'
ṣaastra	(S)	sàat	'science'

3. Theoretical Background

In analyzing the data in Section 2, I assume that the truncation and non-truncation patterns of Sanskrit and Pali loanwords in Thai are basically phonological phenomena which are sensitive to the syllable weight of word-final syllables. The most suitable model to accommodate this assumption may well be Moraic Phonology, in the frameworks of Hyman (1985) and especially Hayes (1989). The essential mechanism of Moraic Phonology is summarized concisely in the following passage: (Hayes 1989: 260)
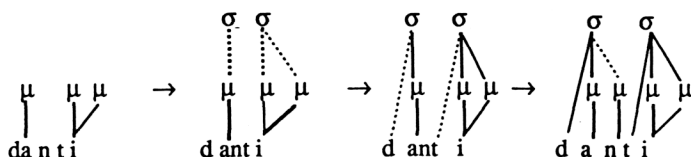
(7)

[M]oras appear in underlying representation, to represent length and syllabicity contrasts. Moras can also be created by language-specific versions of the Weight by Position rule. Other than that, monomoraic segments are simply adjoined to the appropriate position: the mora for syllable-final consonants and the syllable for syllable-initial consonants. (Hayes 1989: 260).

Derivations of the two words in (8) can demonstrate how a set of rules in Moraic Phonology (Hayes 1989) can

actually associate segmental, moraic, and syllabic tiers
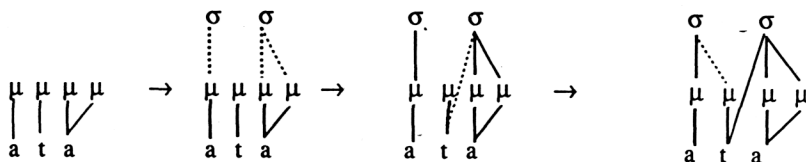with each other to construct syllable structures:
    (8)
    a. dantii (P) 'elephant'

σ σ → σ σ → σ σ → σ σ
μ μμ → μ μ μ → μ μμ → μ μμ μ
da n t i   d ant i   d ant i   d a n t i

underlying   σ-assignment   adjunction   adjucntion   adjunction
form   prevocalic   Weight by   remaining
                             consonants   Position   segments

    b. attaa (P) 'self'

σ σ → σ σ → σ σ → σ σ
μ μ μ μ → μ μ μ μ → μ μ μ μ → μ μ μ μ
a t a   a t a   a t a   a t a

underlying   σ-assignment   adjunction   adjunction   adjunction
form   prevocalic   Weight by   remaining
                             consonants   Position   segments

    In (8a), an underlying form has segments and moras
which represent length; a short vowel being linked to
just one mora and a long vowel being linked to two
moras. In σ (syllable)-assignment, syllables are linked
to these moras. As mentioned in (7), onset segments are
then directly linked to syllables and a syllable-final
consonant is assigned a mora by Weight by Position.
(8b) differs from (8a) in that the former has no segment
which receives a mora by Weight by Position. Unlike
(8a), however, (8b) involves in the association of the
initial syllable with the mora which represents the
weight of a geminate.
    Weight by Position, defined in (9) below, should be
regarded as rendering closed syllables heavy by
assigning a mora to a coda consonant when it is adjoined
to a syllable: