RESTRICTED PHONOLOGY IN CERTAIN THAI LINKER-SYLLABLES

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Phonologists agree that vowel quantity is phonemic in Thai. The syllables which I wish to term linker-syllables have as vowel the phoneme /a/, a short vowel quantitively speaking, usually realized as [ə]. Here are some examples, the linker-syllable being the middle one of the three: rátthabaan   sàppadaa ; ʔèekkaràat ; phannanaa ; kammakaan ; thêepphanom ; sàttawát etc.[1] But the definition cannot rest here. To leave them as phonemically short syllables is not merely inadequate but misleading: they do not conform to the accepted phonological rule that all Thai syllables which are phonemically short must close with some final consonant or other.[2] Only in artificial 'dictation' style do they close with a glottal final. Only in dictation style, moreover, do they bear the phonemic tone we would expect from their spelling. Otherwise, (in normal speech, that is) the pitch of the syllables seems to be self-adjusting, as unobtrusive as a linker should be, accommodating itself to the clear realization of tones in what went before and what is to come after.

These phenomena may be associated with the characteristics of the commonly found syllable of unstressed prefixation.[3] A better way of describing it here (since prefixation is a morphological term, and the use of infra-lexical prefixation is not found in Standard Thai morphology) is as a trip-syllable or anacrusis syllable that ushers in the fully tonal, fully stressed, and fully formed syllable that succeeds it. The point at issue is not why it is there (borrowing, analogy, reduction of full word-prefixation etc.), but what it normally sounds like. Examples are found in kradàat, pratuu, saphaan, khanǒm, lakhɔɔn, maphráaw etc. Moreover, pitch behaviour suggests a talent for accommodation that has been held to be characteristic of linker-syllables.[4] Evidence for this can be heard in the pronunciation of the minimal tone-pair khanà? (ขณะ) and khaná? (คณะ). The letter khǒo (ข) of khanà? produces a higher pitch than might be expected from the orthographic rules for tone; the khɔɔ (ค) of khaná? a lower one. Both syllables seem to be acting as the pitch equivalents of upbeats in rhythm (shall we say 'non-tonemes') in order to enhance the downbeats (the tonemes) of their succeeding syllables.[5]

The iambic foot (‿╱) which conveniently defines the rhythm[6] of these words can easily be expanded into the cretic foot (╱‿╱) by the preposing of a stressed beat. This is the framework in which

we can expect to find a linker-syllable. I wish, however, to focus
attention upon a particular sort of linker-syllable. The examples
chosen at the beginning of the paper, rátthabaan, sàppadaa etc.,
contained what appeared to be geminate articulations. The final
closure of the first syllable was held over to become the initial
stop for the linker-syllable. I say 'appeared to be' since I doubt
whether the aural evidence for geminates (double consonants) is
strong enough in every case to uphold the usual phonological re-
quirement that final-stop phonemes and initial-stop phonemes in Thai
never coincide utterly, never--as it were--conflate to a single pho-
neme doing the work of two.[7] However, this point can be left in
abeyance. (Double consonants will be written in this paper through-
out for such linkages out of deference to the lexicographical *status
quo*.) Whichever solution is preferred, gemination or conflation, I
wish to concentrate on a sequence in the speech-stream passing from
the vowel of the first syllable to the vowel of the second via a
single consonantal stop-articulation only. Thus, I wish to exclude
from consideration linker-syllable examples such as láksanà?,
sǎŋkharâat, càkraphát etc., excluding too, it is worth mentioning,
such 'orthographo-phonemic' changes arising out of, say, the letters
ช, ร, ล or ศ as occur in words like râatchakaan, phanrajaa, phǒnlamáaj
and ?àtsawin.

My final request by way of preliminary preconditions is that
all words of obviously Indic origin be henceforth excluded from con-
sideration for the time being. This cuts down the raw material dra-
matically. Every one of the above examples of linker-syllables is
now ineligible. The reason for this precondition is that a knowledge
of Indic morphology, combined with a knowledge of what conversion table
should be applied to arrive at an acceptable Thai pronunciation for the
borrowed morphology, leave no questions to be asked about the nature
or the environment of linker-syllables in Thai once given the Indic
stimulus.[8] The basic fact is the borrowing; the linker-syllables are
here, for Thai, secondary phenomena of predictable occurrence. Thus,
it is not surprising to find no Indic borrowings with /ŋ/ as the con-
sonant playing the final/initial articulation role for a linker-sylla-
ble sequence: /ŋ/ cannot be an initial articulation in Indic phono-
logy. It cannot have been borrowed, so there was never a need, never
a challenge to produce it. However, it is mildly surprising to find
that there are no ŋ-initial linker-syllables in Thai at all, neither
in Indic borrowings nor in native Thai words. We have good reason
for excluding Indic borrowings from ŋ-initial possibilities, but what
could the reason be for lack of ŋ-initial linkers in Thai? The quickest
answer would be analogy. Some sort of *Sprachbund* influence due to heavy
borrowing from Indic, with consequent heavy utilization of linker-syl-
lables, inhibited the full range of eligible articulations in Thai
(/ŋa-/ is found as a trip syllable in iambic rhythm[9] and, of course,
it is one of the normal final-stop consonants in Thai.) If we add
glottal stop to the list of 'missing linkers' too, then a similar ar-
gument applies. Indic sandhi removed any possibility of a hiatus ex-
cept for the visarga (not itself a glottal stop hiatus, incidentally)
conventionalized at many removes as the Thai vowel sign ะ. Now the

<u>visarga</u> in Indic phonology was a final articulation only; it could, therefore, never serve as initial to an on-going syllable. It is pointless, therefore, to seek ?-initial linkers in Indic borrowings. But there is some point in asking why native Thai forms refrain from its use too. It is eminently fitted to be both initial and final and shows evidence of participation in trip-syllables (<u>?arɔ̀j</u>, for instance).

Let us at this juncture, however, provide some examples of some non-Indic, cretic rhythm trisyllables which are, for the most part, common enough as everyday Thai words. Only the <u>n</u>-linkage items seem, to my mind, rare and thus on the margins of a speaker's experience.

<u>-kk-</u>	sòkkapròk; ?ỳkkathỹk; ?ə̀əkkarə̀ək; túkkataa; cákkacî̂i; sàkkalàat; chúkkachii.
<u>-kkh-</u>	?èekkhanèek.
<u>-tt-</u>	?èttaroo; bèttalèt; ?ùttalùt; ?àttakhát; ?ỳttapyy.
<u>-pp-</u>	sàpparót; sàppadon; sàppaŋòk (variant: sàpphaŋòk)
<u>-pph-</u>	sàpphajɔ̂ɔk.[10]
<u>-nn-</u>	channatù?; channarooŋ; channakàat.
<u>-mm-</u>	kammajìi; kammathǎn; rammanaa; sǎmmalee.

Two sorts of comment may be made about these examples (which are not exhaustive, of course); one is to question the degree of 'nativeness' in any of them;[11] the other is to call for their rating in order of versatility--the degree of variety in phonemic make-up found under each heading. Dealing with the first comment, the series of examples beginning with the syllable /sàp-/ remind us of the common Pali word-prefix <u>sabba-</u> which converts to สัพพ- (<u>sàp-</u>) in Thai (the Sanskrit form is <u>sarva-</u>, appearing in Thai as สรรพ-, which may be either /<u>sàp</u>/ or /<u>sǎn</u>/ in the first syllable), though we would expect an aspiration, /<u>-pph-</u>/, for the linker-syllable initial, which we regularly get in the Thai conversion of the Sanskrit form. <u>sàpphajɔ̂ɔk</u> is a case in point. The preponderance of /<u>sàp-</u>/ syllables, therefore, might well be put down as a prefixation habit from a specific Indic form, leaving in doubt the native propensity to use <u>p</u>-initial linker-syllables. Similar remarks may be made about the /<u>chan-</u>/ syllable in the <u>n</u>-initial linkages. Though extremely common in Indic, <u>n</u>-linkages are hard to find in native Thai. Whether <u>chan</u> is Indic in origin is highly questionable--it combines with a syllable spelled <u>sūtra</u> (Thai <u>sùut</u>, สูตร) in the word <u>channasùut</u>, and the Thai word <u>channatù?</u> looks suspiciously like <u>jantu</u>,--but, whatever its origin, the highly restricted class of <u>n</u>-linkages is striking. With <u>m</u>-linkages the restrictions, though less striking, are still severe. The first syllable always ends in /<u>-am</u>/. Is this an analogical effect from Khmer infixation, perhaps, explaining why no /<u>-im</u>, <u>-um</u>, <u>-em</u> etc./ endings are utilized?

The suggestion to be put forward is that the <u>p</u>, <u>n</u>, and <u>m</u>-linkages are, on the whole, a suspicious lot for native Thai, whereas <u>k</u> and <u>t</u>-linkages are respectably normal. They are also more versatile in their compatibility with differing phonological environments, as will be shown.

Aspiration, however, seems to be the exception rather than the rule. Until it can be known for certain that all the data are gathered in, or that our sample sizes are proportionally representative in the fairest way, an impression is all that can be offered. For what it is worth, the impression is of scant findings for native Thai productive linking procedure with nasal consonants (none for velars, rare for dentals, and some few for bilabials), scant findings for bilabial stop linkage, and good, though admittedly modest, findings for velar and dental stops. In all the items so far cited, very few examples contained a first syllable of long vowel-quantity (ʔə̀əkkarə̀ək and ʔêekkhanèek) and very few had aspirate release for the linker's initial (ʔêekkhanèek and sàpphajɔ̂ɔk, also perhaps sàpphaŋɔ̀k), the widest scope for variation in vowel quality, quantity and alternation between aspirate and non-aspirate plosion across the linkage itself being found in velar stop linkages. This was in striking opposition to the total absence of linkage possibilities for velar nasals.

These were but impressions, however. Are there other indications that non-nasal velarity provides a focus for native Thai linkage procedure? The reply to this question leads us from morphology to low-level syntax: it leads us from the one-word polysyllable to the juxtaposition of two words. Now it would be extremely easy to produce long lists of examples to suit any articulation desired for some sort of geminate juncture. For instance, taking as a basic pattern a monosyllabic word first plus an iambic rhythm word second (kradàat, pratuu etc.) almost any cretic foot can be arranged:

-kk- khlúk-kapì?;   -kkh- thòk-khamɛ̌en;
-tt- khàat-talàat;   -tth- bòt-thanɔ̌n;
-pp- ráp-pathaan;   -pph- tháp-phamâa; etc.

This can hardly be called linkage at all, however, and remains mere syntactic juxtaposition. There is almost certainly true gemination here, unquestioned here, moreover, as a junctural feature that is not restrictive, and, given sufficient ingenuity, there might well be examples forthcoming of juxtapositions that have been impossible hitherto either on Indic or on native Thai phonological grounds.[12] This is what is to be expected with the move into syntax. Phonological environments can no longer be restrictive at word-boundaries as they were at syllable boundaries within the word. But what if linkage, in addition to being catered for, speciously, by ingenuity, can actually be produced out of nothing in certain cases at this low syntactic level? What if a linker-syllable--and a true one at that--is, as it were, felt to be appropriate when passing from one monosyllabic word to the next?

There is in Bangkok vernacular Thai a very small group of two-word locutions in which a linker-syllable is found that is not found in Standard Thai. Where Standard Thai keeps to two stresses only (a spondee), vernacular Thai inserts an unstressed syllable to create the cretic foot we are now familiar with. The locutions are

t̀okkacaj	from	t̀ok caj
h̀okkalóm̀	from	h̀ok lóm
lûukkataa	from	lûuk taa

The list is indeed very small. It is nevertheless *evidence for the
focussing of linkage procedure on non-nasal velarity.* What it is not
evidence for, however, is that this is a regular, widespread productive
procedure. If we ask, if t̀okkacaj, why not *plɛ̀ɛkkacaj; if h̀okkalóm,
why not *h̀akkalǎŋ; if lûukkataa, why not *lûukkataan, then no adequate
answer can be given. Speculation about the possibility of these three
being special, separate and unrelated cases gets us nowhere. For in-
stance, the t̀okkacaj pronunciation may be thought to reflect the se-
quence kacaj as in mii kacaj, mii kac̀it kacaj where there can be no
suggestion of linkage. Thus it becomes a special case, there being
no need to hypothesize parallel forms *kalóm or *kataa. In mii kacaj,
however, the syllable /ka-/ seems to be a reduced form of kɛ̀ɛ (mii kɛ̀ɛ
caj). Does this, then, imply that the sequence *t̀ok kɛ̀ɛ caj exists
in vernacular Thai? If not, namely, if kacaj (or perhaps kracaj) is
a variant form of caj, then we must ask why it does not occur after
plɛ̀ɛk-, sùk- or ǹak- etc. in the phrases plɛ̀ɛk-caj, sùk-caj and ǹak-
caj. If the h̀okkalóm pronunciation is held to be an instance of dis-
similation, an attempt to keep the /k/ and /l/ phonemes well apart so
as to avoid their coalescence into a /kl/ cluster, we must ask why h̀ak-
lǎŋ, t̀aak-lom, ǹak-lɛ̂n etc. have managed to escape this fate. And if
the lûukkataa pronunciation is offered as a sample of a kind of as-
similation--the holding over of the velar final to form an unattested
ka- (or kra-) variant of the following word, as probably happened with
the attested variants nók-jaaŋ/ nók-kajaaŋ, lûuk-dum/ lûuk-kadum etc.,
then the suggestion is saying no more than has been said already, namely,
that non-nasal velar finals tend to set this linkage procedure in motion.
This, of course, may go hand-in-hand with a predidposition to develope
kra- variants for quite other reasons--a need felt for formality deriving
from a prestigious Khmer-type morphology in a dissyllable, perhaps, e.g.
tham/ kratham, dòot/ kradòot, and even ʔaraj/ kraraj. Be that as it may,
the focus upon non-nasal velarity for linking is justified by the evi-
dence of the three vernacular linked-locutions, even though the reasons
why these three particular cases turn up are unfathomable.

     More may be added to the list of three 'generated' linkages, how-
ever. Reservations will be duly pointed out. They arise out of dif-
ferences in word status: free or bound relationships; derivational prob-
lems; real words that are partners as against partner-plus-dummy rela-
tionships. In other words, the line between morphology and syntax is
often a debatable one. I hope, though, that the phonological evidence
is invariably clear.

     We are on fairly firm ground with chákkajɵ̂ɵ/ chákkhajɵ̂ɵ, both
chák and jɵ̂ɵ being dictionary entries, the reservation here being sim-
ply the possibility of either aspirate or non-aspirate linkage. The
former is usually cited in the dictionary transcriptions. Obviously,
the word jɵ̂ɵ collocates so closely with chák that the aspiration feature
of the linkage articulation ceases to be truly distinctive, as it did

also in s̀appaŋòk/ s̀appʰaŋòk. *Specific, lexical collocation is not* always a necessary precondition for linkage, however. Widest collocation can be found for a modal type pre-verb, mâj-ják/ mi.ják, which associates itself with a whole word-class, the verb, and may do so by resort to velar linkage. The reservation here is that, being in itself an iambic rhythm, it will not yield a perfect cretic rhythm when juxtaposed with a monosyllabic verb (the pattern is ◡ / ◡ / instead of ⌒ ◡ /), e.g. mi.jákkarúu, mi.jákkamaa, mi.jákkabɔ̀ɔk etc.. Nevertheless, it is of great significance for velar linkage in vernacular speech and need not be masked be the insertion of the word c̀a- as an unstressed element before the verb, which so often happens with pre-verb modals like mákca-, chákca-, j̀aakca- where no possibi-*lity of velar linkage seems to be tolerated.* The only suggestion that could cancel out the significance of mi.jákka- linkage *would be* that the /ka-/ syllable was simply a reduced form of prepositional k̀ap or k̀ɛ̀ɛ. As far as I know, this suggestion has not been made.

Let us now take, for example, the pair of words tákkatɛɛn and cákkacî̀i. The latter contains the attested word-form cî̀i, with an easily comparable meaning ('to tickle' as against 'to prod, poke'), conveying the impression that the cák plus linkage might perhaps be merely a dummy, a sort of phonaesthetic elaboration. This would be borne out by the existence of other words with the same cákka- element --cákkac̀an is one--but unrelated in meaning. cákkac̀an, in turn, however, does have a meaning similar to that of the word tákkatɛɛn (they are both stridulating insects, 'the cicada' and 'the grasshopper' respectively) and it is here that the parallel appears to break down, since etymology (dialectology and, in this case, comparison with ancient Chinese reconstructed forms for 'cicada/grasshopper' words--蚱 and 蟬) gives full word status to ták. ták and cák thus appear to be different reflexes of one and the same ancestral 'insect' word: cák is not a dummy element here after all but the residue of a real word joined to its partner-word by velar linkage. A further member of the cák set might be mentioned: the vernacular variant of rákrɛ́ɛ, cákkalɛ́ɛ, fitting none of the specifications for the cases just mentioned, but providing a favourable phonological environment for velar linkage to occur, and with the imposition of a favoured pattern, cákka-, by substitution in the first syllable. Not far removed from the tákka- pattern, the sequence túkka- produces three forms, túkkataa, túkkatŭj and túkkat̀am. It is difficult to say whether, etymologically, the first or last syllables have ever been separable words.

Favoured patterns occur in linkages other than velar ones. We have already seen such a pattern exerting its influence in the s̀ap set for bilabial linkage. More evidence for this comes from the word s̀appar̀əə, the etymology of which I assume to be the Indic (Sanskrit) s̀ava, modern Thai s̀op, compounded with the Khmer word prəə, more commonly found in the infixed form bamrəə in Thai. We might expect a hypothetical form like *s̀apphaprəə, but this has been constrained to follow the s̀apparót, s̀appaŋòk group's pattern. Bilabial nasal linkage produces what seems to be a kind of analogical pattern for the linkage of princely krom ranks. The analogy is with the small group of

kamma- pattern words (kammajìi etc.), the syllable /krom/ basing
itself on the behaviour of the syllable /kam/. We therefore ar-
rive at the set krommamȳyn, krommakhǔn, krommalǔaŋ etc. and includ-
ing the administrative department krommathâa and the quasi-Indic
word for a kind of official document, krommathan. It is not far
fetched to imagine the host of Indic borrowings with kamma- (กรรม)
as the first term in a compound being behind this whole phenomenon,
eg. kammakaan, kammathǎan, kammasìt etc.

We have now come to a stage where we can speak of two habits
or predispositions. On the one hand there is the habit of producing
cretic rhythm where a simpler rhythm (a spondee) was an available
possibility. A brief note will be added later to reinforce the idea
that cretic rhythm is habit-forming in Thai, so much so, indeed, as
to be able occasionally to inhibit other rhythms from asserting
themselves--rhythms, that is to say, over and above the simple spon-
dee. The other habit to be recognised is the predisposition to velar
linkage in non-Indic words in Thai. Again, certain features are oc-
casionally inhibited, or perhaps it would be better to say digested,
swallowed up, in the identity of the velar linker. Take, for in-
stance, the joining of the words sák and pradǐaw in vernacular Thai
--sákkadǐaw. The /pra-/ trip-syllable has been converted to /ka-/.
It is fruitless to ask if the conversion is elision with subsequent
velar linkage from sák, or whether it is assimilation of /pra/ to
/kra/ (vernacular /pa/ to /ka/) after sák. A similar conversion must
have happened in the word sàakkabya, which etymology holds to have
come from three words: sàak, khâaw and bya. If the etymologists are
right, it has also happened in kàakkarun, where either the Tamil
kurundam or the English corundum lies behind some such form as *kurun
or *khɔrun that has been converted to karun by appending it to kàak.
In the case of ʔəəkkarə̀ək a /kr-/ cluster has been split. Forms such
as krə̀ək and kakrə̀ək are attested in dictionaries, but no independent
form *karə̀ək. Nor is there a form *rə̀ək at all. sàkkalàat is supposed
ultimately to be based on the Arabic siqillāt which gave the English
scarlet which gave the Hindi sakalet. It has ended up as a typical
cretic rhythm in Thai.

With the citation of known borrowings, however, it must be
admitted that the situation is much more free-ranging. There is no
particular predilection for velar linkage: lɔ́ttarîi is just as regu-
lar a form as chɔ́kkalɛ́t, and no less likely a form either. Two rea-
sons suggest themselves. One is that the hit-or-miss nature of se-
lecting what is to be borrowed is unlikely to produce a large enough
set of examples to check to see whether velar linkages predominate.
The other is that 'foreignness', while still a nuance of feeling at-
tached to a word, may provide its own phonological 'style' with dis-
tinct departures from normal expectations. Other sets with other
nuances also have their own 'styles'. Many of the set of personal
nicknames in Thai are highly idiosyncratic from the tonal point of
view. From the rhythm point of view, place names (avoiding obviously
Indic etymons) offer some examples of cretic rhythm with wide scope
for different linkages: sàttahlip sounds just as normal as mákkasǎn,

p̀àttanii just as normal as b̀ùkkhaloo; the pronunciation pháppadɛɛŋ, normal enough in vernacular Thai, goes towards supplying bilabial linkage.

It seems, therefore, that at a level where the Thai language is, in some sense, self-conscious (mimicking, naming) we cannot expect to find the same relative proportions for the use of velar linkage, (as against other linkages), that we find in the more everyday function of language as a vehicle for simple communication. Here velar linkages seem to assert themselves unconsciously, as if there were some quality inherent in velar finals that, in the overall phonological system, made them prone to linking procedure. The question must be asked, then, whether there is anything discernibly weak or strong, stable or unstable, about final velarity under junctural pressures. We must seek a solution in the phonological system (not a conscious part of most native speaker's minds), rather than in conscious preferences for this or that sequence of sounds.

In the Thai consonant phoneme chart the velar row does show one deficiency: there is no velar equivalent for the voiced initial stops dɔɔ and bɔɔ. Nor is there evidence of a preglottalized /g/ or /ŋ/ in any of the remoter dialects. Perhaps there is an inhibiting factor that makes co-ordination of velar and glottal stop articulation more difficult than for articulations further forward in the mouth? If some such thing turns out to be true, and if it is true also that glottal occlusion is concomitant for all dead syllable final-stop articulations in Thai, then the only candidate for velar final is the articulation that is appropriate to initial /k/. Glottal closure is presumed to be concomitant here, but the velar stop, as initial, has a fortis articulation with definite velic closure for non-nasality. Are these permissible concomitants for Thai dead syllable final-stop articulation? Could there not be a tendency remaining in the velar stop to exhibit its appropriateness to an initial role by encouraging the exploitation of any possibility whatever for release into a following linker-syllable?

The complement to this, a marginal inappropriateness for final-stop function, ought to mean that /k/ finals should be marginally unstable. This suggests a possible substitution for /k/, or its complete disappearance. Dialects other than Standard Thai or vernacular Bangkok Thai do exhibit these phenomena, final /k/ often being replaced by final glottal stop. Malay and most dialects of Cambodian exhibit them too, however, so the motive force behind this might be a Sprachbund tendency rather than the inherent weakness that I have suggested so far as being in the Thai phonology itself. In Standard Thai, the disappearance of final /k/ in unstressed words (càk as a pre-verb modal reducing to ca-; máak as a head-noun prefix for the set 'nuts and fruits' reducing to ma-) is not very convincing evidence (the /-p/ final of kàp also disappears in unstressed position).

If speakers are barely conscious of a predisposition to velar linkage, the favouring of cretic rhythm is much nearer their con-

scious perceptions. Much more may be said about it. Indeed, I have omitted a good proportion of examples simply because their linkages did not constitute a problem. Open final plus linker, for example: fǎalamii, ciaranaj, phâakhamáa etc.; homorganic consonantal juncture (nasal followed by stop): sǎŋkataŋ, sǎmpalǎŋ, thaantawan etc.; heterogeneous consonantal juncture: chùklahùk, chunlamun, kèekmarèek etc.. But leaving linkage topics completely aside, we can follow the cretic rhythm pattern still further. We have seen that in a line-up of three words making a compound (sàak khâaw bya was one example; phâa khǎaw máa is another), it is the middle one from which the stress is often taken. But this could be thought to be a secondary phenomenon arising out of two steps in derivation, the basic one being, say, in such a compound as chiiphakhǎaw, the compounding of phâa and khǎaw first, tending to give an iambic rhythm (phrase-final stress), followed by its compounding with chii, which does not lose stress to the same extent. But why is this so? If the loss of stress moves back once (first step in deriving a compound from two words), why should it not move back again (second step, deriving a compound from three words)? After all, if we ignore multiple stress levels and confine ourselves only to a stressed/ unstressed (downbeat/ upbeat) dichotomy, there are at least two possible outcomes other than the cretic foot we are familiar with: one is the bacchic foot (‿ / /), and the other the anapaest (‿ ‿ /). Thai trisyllabic words exhibiting these features are, for example, krathanhǎn, mahǒorii, talumphúk for the former, and, at least according to Thai orthography, malakɔɔ, kalamaŋ, sarancè for the latter. Thai orthography is, however, occasionally betrayed. To my ear, words such as phajaajaam, phajaabaan, kalaasǐi, malaajuu, which should yield bacchic rhythm, seem to move towards a cretic rhythm by way of the anapaest. It is the anapaest sequence of two weak stresses together that is so difficult to pin down. It often seems that in certain contexts and at certain speeds (and for some speakers more than others, perhaps) many 'orthographic' anapaests in Thai fall back on to a strengthening of the first weak syllable. I often hear the above words as mállakɔɔ, kallamaŋ, sárancè. I note an alternative attested form for calawàn, namely câalawàn, which exaggerates this alternative rhythm. Instead of bacchic rhythms I hear phíjajaam, phíjabaan, kallasǐi, mállajuu. In other words, I hear much the same rhythm for these words as for cákkacîi, ʔàttakhát, sàpparót, which in the orthography are duly accounted for as cretic. Were I to insist I heard anapaestic rhythm for these latter (which I sometimes do), it would probably be put down to allegro forms--changes due to high speed of delivery. What I perhaps should appeal for, then, is the admission of 'andante forms' for those anapaestic-looking words which enter my ear on certaon occasions with a cretic rhythm.[13]

These observations and speculations are offered in the hope that interested native speakers will assist in compiling a corpus of linker-syllable words, including those of a phoneasthetic type that might be ephemeral as well as proper names and neologisms that might be outside the public domain. Especially helpful would be a coverage of provincial dialects in respect of linkage phenomena (or its absence) which might help us to discover just how big a debt is

owed to borrowed morphology, a demand for which--or simply a taste
for which--may have inspired new departures in Thai morphology with
its attendant stresses and strains upon the Thai phonological system.

NOTES

[1] A similar list with comments similar to those made in the opening
paragraphs of this paper is to be found in Henderson 1949, p.198.

[2] I leave out of consideration the phonology of final particles with,
if the pun may be forgiven, their own 'particular' phonology. Here
the short syllable is not merely *allowed* to have an open termina-
tion (to be 'live'--kham pen, that is) but in some cases *must* have
one because of a minimal pair contrast, e.g. allegro forms of the
Polite Particles: /há?/ for men, and, in interrogative sentences,
/há/ for women.

[3] See Gedney 1964, p.8: '...syllables having weak stress, usually
prefixed to a normal syllable.'

[4] Henderson 1949, p. 199-200, deals with these phenomena and includes
besides unstressed /-a-/ in these syllables, the vowels /-i-/ and
/-u-/ too. Apart from my own somewhat peremptory decision to ex-
clude these from consideration (they make up a negligibly small
part of the non-Indic wordstock, e.g. philýk, cipaathà?, kulii-kucɔɔ,
surûj-surâaj etc.), there are misgivings in my mind about the at-
tribution of totally relaxed tone to their occurrence in familiar
Indic prefixes, su-, ni-, vi- etc., borrowed into Thai. Familiar
words with su- prefixation seem most likely to relax to mid-level
pitch, vi- prefixes least likely, whether borrowed as /phí-/ or
/wí-/. Double weak stress, as in borrowings from paṭi- or anu-
prefixation pose yet other problems--those of Standard Thai's fa-
voured rhythms--which is gone into at the end of this paper.

[5] I suspect there is sometimes a little more to it than merely a
relaxed pitch--a tendency to converge towards the middle of the
voice range (Gedney 1964, p.8: 'The tone on such syllables tends
to be neutralized to a mid level pitch...'). Words like faràŋ
and thalYŋ often sound to me as if they should be transcribed fáràŋ
and thàlYŋ when used affectively (as exclamations, in particular).
The pitch of the first syllable seems to strike a balance *across*
the middle of the voice range, like a see-saw.

[6] (a) By *rhythm* I mean here an expected pattern of contrasts, in-
variant in the sense that each particular pattern is fixed for each
particular unit under discussion. If the contrast is seen basically
as between lack of stress and phonemic tone in a syllable on the one
hand and the presence of some degree of stress and some allophone of

a tone on the other, i.e. if the crux here is *lack* of stress versus *any* stress at all, working always from the unstressed side, so to speak, rather than from any preoccupation with primary, secondary etc. levels of stress measured from a maximum, then what I have called rhythm will in a great many cases (viz. where the unit under discussion is a *word*) turn out to be *word-stress*. The assumption is that the lack of any impression of prominence is not attributable only to a wider context of sentence stress or style (rapid speech etc.) but is inherent in any form where a trip-syllable or a linker syllable plays a part. It is also assumed that such a trip- or linker-syllable will normally be relatively shorter in duration (see Noss 1972, p.41, for the word t̪alàat), less resonant (not so much a question of loudness as the [ə] vowel quality, often whispered, especially so, of course, after aspirates, affricates and fricatives) and less purposive about pitch (quite apart from whispering, the mid-voice range is precisely the range where the tones of Standard Thai short 'dead' syllables may not occur, so that any falling short from high or floating up from low may justifiably be termed 'less purposive') than other syllables. This is not to say that certain monosyllabic words may not be reduced to this condition of lack of prominence (see Noss 1972 and Samang 1972). Of course they may, but it will be assumed here that there are ways of restoring most of them to their former glory, ways which are not open to the true trip- or linker-syllable short of artificially syllabified dictation.

(b) The word *foot* is used merely as the usual partner word that goes with the metrical terms of Western Classical verse-scansion-- *iambic, cretic* etc.. It refers to stress rather than to Classical syllabic quantity. Here I might note the Thai interpretation of the convention of Indic g̱aru/l̲ahu quantity in the scansion of chanda (/chǎn/) verse. Far from it being simply a question of short versus long vowels, the Thai l̲ahù (light) syllable corresponds only with those syllables that would here be termed either trip-syllables or linkers, with the scope extended to include /i̱, u̱/ as well as /a̱/ (see footnote 4), in acknowledgement of the three short vowels of Indic phonology. The aural impression is thus one of stress rhythm rather than one of quantity contrast. Indeed, from the point of view of beating time, all syllables save these, i.e. all fully formed syllables whether quantitively long or short, are isochronous. A foot, then, here defines the extent of an expected pattern. It is not like the use of the word *foot* sometimes found in analyses of English sentence rhythm where it marks stress-groups headed by 'strong beats' somewhat like bar lines in music (see Noss 1972 and Woranut 1973). On the contrary, rather, there is not a single 'foot' mentioned in this paper that *closes* with a weak beat. The downbeat clearly belongs at the *end* of a bar here, not at the beginning. There are, moreover, three--iambic, anapaestic and bacchic--that *begin* the foot with upbeats and are perfectly normal.

[7] The syllabification of $C^1 V \ C^2 V \ C^3 V \ ...$ into $C^1 V \ C^2$, $C^2 V \ C^3$, $C^3 V \ ...$ is common in English. Hockett 1958 calls any C common to two consecutive syllables an *interlude*.

8 Indic linkers in -y- and -v- are found in Thai as /-jj-, -ww-/ e.g. sǎjjasàat, jawwachon, where a geminate looking transcription is called for. They were left out of the list of examples at the commencement of this paper because the 'conversion table' does not make a neat correspondence in the vocalism. The consonantal nature of the semivowel held over for linking is plain, however, and in no way extraordinary. There are no repercussions upon the use of ย and ว in Thai orthography for the glide in centring diphthongs /-ia(-), -ua(-)/, which diphthongs count for one syllable beat only, not two as with linkage e.g. /|pi|jǎ|bùt|/ not /*|pia|bùt|/; $\underset{1}{} \underset{2}{} \underset{3}{}$ ... /|jú|wa|chon|/ not /*|jua|chon|/. The different rhythmic resolutions are interesting here, by the way.

9 See the Royal Institute Dictionary entry for งะ. The Khmer word for 'dark' has been borrowed into Thai as /ŋaŋít/ (งงิด) without trouble and is also entered in this dictionary.

10 I adhere to the dictionary reading and that of academic colleagues for the pronunciation of this word. Not-so-academic colleagues have insisted it is sàpphajɔ̀ɔk, citing the word jɔ̀ɔk as being 'much the same thing'. Oddly enough, the Royal Institute Dictionary offers some support for this in glossing the meaning of sàpphajɔ̂ɔk with the single entry jɔ̀ɔkjáw.

11 Gedney 1964 has an interesting observation on the frequency of trip-syllable morphology in dialects ranging from Siamese, through Red Tai and Black Tai, to White Tai. That prefixation is (or was) a common morphological process in Malay and Cambodian too is, of course, well known, and these languages constitute the most immediate likely influences upon an earlier, monosyllabic stage of Tai.

12 For /-ŋŋ-/, for example, we could have khɔ́ɔŋ ŋaŋɔ́ɔŋ; and for /-ʔʔ-/ we could suggest kɔ̀ʔ-ʔaraj.

13 When this paper was delivered, considerable disagreement was expressed (not surprisingly) about the observations in this paragraph. On the whole, the claim to hear cretic rhythm instead of anapaestic rhythm was greeted with scepticism. Two examples were produced, however, (with /-hi-/ as the unstressed syllable), máhidon and ʔàhiwaa, where cretic rhythm--against the dictates of orthography--was accepted.

GLOSSARY

rátthabaan	รัฐบาล	'the government'
sàppadaa	สัปดาห์	'a week'
ʔèekkarâat	เอกราช	'independent sovereignty'

phannanaa	พรรณนา	'to describe'
kammakaan	กรรมการ	'a committee'
thêepphanom	เทพนม	'goddess-figure performing *anjali*'
sàttawát	ศตวรรษ	'a century'
kradàat	กระดาษ	'paper'
pratuu	ประตู	'a door'
saphaan	สะพาน	'a bridge'
khanǒm	ขนม	'sweetmeats'
lakhɔɔn	ละคร	'dance-drama'
maphráaw	มะพร้าว	'coconut'
philýk	พิลึก	'to be peculiar, odd'
cipaathà?	จิปาถะ	'to be miscellaneous'
kulii-kucɔɔ	กุลีกุจอ	'to be all scrambled together'
surûj-surâaj	สุรุ่ยสุร่าย	'to be a spendthrift'
khanà?	ขณะ	'whilst, - time during'
khaná?	คณะ	'a group'
faràŋ	ฝรั่ง	'Europeans, Westerners'
thalýŋ	ทะลึ่ง	'to be cheeky, saucy'
láksanà?	ลักษณะ	'a characteristic'
sǎŋkharâat	สังฆราช	'the Prince Patriarch'
càkraphát	จักรพรรดิ	'an emperor'
râatchakaan	ราชการ	'government service'
phanrajaa	ภรรยา	'a wife'
phǒnlamáaj	ผลไม้	'fruit'
?àtsawin	อัศวิน	'a knight'
sǎjjasàat	ไสยาศาสตร์	'magic, sorcery'
jawwachon	เยาวชน	'youth'
júwachon	ยุวชน	(var. of above)
pijábùt	ปียะบุตร	'beloved child'
?arɔ̀j	อร่อย	'to be tasty'
sòkkapròk	สกปรก	'to be dirty'
?ỳkkathýk	อึกทึก	'to be clamorous'
?ə̀əkkarə̀ək	เอิกเกริก	'to be very grand'
túkkataa	ตุ๊กตา	'a doll'
cákkacîi	จักกะจี้	'to tickle'

sàkkalàat	สักหลาด	'flannel-like cloth'
chúkkachii	ชุกชี	'a base for a Buddha-image'
ʔèekkhanèek	เอกเขนก	'to be lounging in comfort'
ʔèttaroo	เอ็ดตะโร	'to be in uproar'
bèttalèt	เบ็ดเตล็ด	'to be miscellaneous'
ʔùttalùt	อุตลุด	'to be in confusion'
ʔàttakhàt	อัตคัด	'to be destitute'
ʔ̀yttapyy	อีดตะปือ	'to be in abundance'
sàpparót	สัปปะรด	'pineapple'
sàppadon	สัปดน	'to be obscene'
sàppaŋòk	สัปหงก	'to be nodding drowsily'
sàpphajɔ̀ɔk	สัพยอก	'to joke, to tease'
jɔ̀ɔk jáw	หยอกเย้า	'to joke, to tease'
channatù?	ชันนะตุ	'scalp infection'
channarooŋ	ชันโรง	'the honey ant'
channakàat	ชันกาด	'a grass-like herb'
kammajìi	กำมะหยี่	'velvet'
kammathǎn	กำมะถัน	'sulphur'
rammanaa	รำมะนา	'type of uniface drum'
sǎmmalee	สำมะเล	'to carouse drunkenly'
channasùut	ชันสูตร	'to do an objective analysis'
khlúk kapì?	คลุกกะปิ	'to mix with shrimp-paste'
thòk khaměen	ถกเขมร	'to tuck up a phâakhamáa like a loin-cloth'
khàat talàat	ขาดตลาด	'not to be on sale anywhere'
bòt thanǒn	บดถนน	'to level a road by rolling'
ráp pathaan	รับประทาน	'to eat' (-- -- ʔaahǎan)
tháp phamâa	ทัพพม่า	'the Burmese army'
khóoŋ-ŋaŋóoŋ	โค้งงะโง้ง	'sweepingly curved'
kɔ̀? ʔaraj	เกาะอะไร	'What island?'
tòk caj	ตกใจ	'to be startled'
hòk lóm	หกล้ม	'to fall down'
lûuk taa	ลูกตา	'eye, eyeball'
plὲɛk caj	แปลกใจ	'to be puzzled'
hàk lǎŋ	หักหลัง	'to let someone down badly'
lûuk-taan	ลูกตาล	'sugar-palm fruit'

mii kɛ̀ɛ caj	มีแก่ใจ	'to be more than willing'
sùk-caj	สุขใจ	'to be happy'
nàk-caj	หนักใจ	'to be heavy-hearted'
tàak lom	ตากลม	'to let the wind dry something'
nák lên	นัก เล่น	'a player'
nók-jaaŋ	นกยาง	'an egret'
lûuk-dum	ลูกดุม	'a button'
tham/kratham	ทำ /กระทำ	'to do, commit'
dòot/kradòot	โดด /กระโดด	'to leap'
chákkajə̂ə	ชัก เย่อ	'to have a tug-of-war'
mâj-ják	ไม่ยัก	'to feel the contrary should be so, ... ought to have ...'
tákkatɛɛn	ตั๊กแตน	'a grasshopper'
cákkacàn	จักจั่น	'a cicada'
rákrɛ́ɛ	รักแร้	'armpit'
túkkatǔj	ตุ๊กตุ่ย	'to be tiny, trifling'
túkkatàm	ตุ๊กต่ำ	'kind of black ore'
sàpparə̀ə	สัปเหร่อ	'an undertaker'
kammathǎan	กรรมฐาน	'a meditation technique'
kammasìt	กรรมสิทธิ์	'ownership'
sák pradǐaw	สักประ เดี๋ยว	'just a moment'
sàakkabya	สากกะเบือ	'a pestle'
kàakkarun	กากกะรุน	'abrasive, emery paper'
lóttarîi	ล็อตเตอรี่	'lottery'
sàttahìip	สัตหีบ	PN.
mákkasǎn	มักกะสัน	PN.
pàttanii	ปัตตานี	PN.
bùkkhaloo	บุคคโล	PN.
pháppadɛɛŋ	พระประแดง	PN.
fǎalamii	ฝาละมี	'cookpot lid'
ciaranaj	เจียรไน	'to cut gems'
phâakhamáa	ผ้าขาวม้า	'all-purpose cloth for personal use by men'
sǎŋkataŋ	สังกะตัง	'tousled'
sǎmpalǎŋ	สำปะหลัง	'tapioca'

thaantawan	ทานตะวัน	'sunflower'
chùklahùk	ฉุกละหุก	'to be flurried'
chunlamun	ชุลมุน	'to be chaotic'
kèekmarèek	เกกมะเหรก	'to be a good-for-nothing rogue'
chiiphakhǎaw	ชีผะขาว	'Buddhist nuns'
krathanhǎn	กระทันหัน	'to be sudden'
mahǒorii	มะโหรี	'Thai orchestra'
talumphúk	ตะลุมพุก	'rice-pounder'
malakɔɔ	มะละกอ	'papaya'
kalamaŋ	กะละมัง	'kitchen bowl'
saranὲε	สะระแหน่	'mint'
phajaajaam	พยายาม	'to try'
phajaabaan	พยาบาล	'to nurse'
kalaasǐi	กะลาสี	'seaman'
malaajuu	มลายู	PN.
calawàn	จะละหวั่น	'to be in confusion'
máhidon	มหิดล	PN.
ʔàhiwaa	อหิวาต์	'cholera'

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