BURMESE HISTORICAL MORPHOLOGY
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Introduction. Burmese is a Burmish member of the Lolo-Burmese branch of Tibeto-Burman languages (Sino-Tibetan). Since most although not all its morphology developed within its history or pre-history, Burmese is an ideal place to study morphological development. A frequent problem in studying the course of diachronic change either without the benefit of enough written records or at least without a sufficient knowledge of the previous stages in the history of a language is determining which of two or more related forms or constructions was historically prior. It would be nice if morphemes came labeled with tags such as those wildlife investigators put on the legs of migrating birds; then we could not only know where a given morpheme originated but we could also follow its migratory path through the lexicon. Just such a trace element exists in the so-called ‘creaky tone’ of Burmese: /auk mrac/. Aside from a handful of borrowings and a small number of forms inherited from proto-Lolo-Burmese proto-tone *3, all the Written Burmese creaky tone forms with clear etymologies arose out of the verbal morphology! The presence of /auk mrac/ on a morpheme tags it as having originated as a sentence-final verb. Thus this 'tonal tag' provides valuable clues about the course of historical change for several word classes: more specifically, verb/adjective pairs, deverbal nouns, postpositions, verb particles, and adverbs will be discussed in this context.

The tone and its statistical distribution. Within Modern Burmese, three tones are found in non-stopped syllables: the level tone, the 'heavy' tone [hre/?pauk], and the creaky tone [/auk mrac]. The creaky tone is by far the least frequently occurring Burmese tone (only about 350 words are found under /auk mrac/) but it is now scattered through the Modern Burmese lexicon. It is found as the lexical tone of at least some members of every word class and in terms of a purely synchronic characterization, one would be forced to note a large degree of randomness in its modern distribution. An examination of 467 morphemes written with 'orthographic' creaky tone showed the following distribution:

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>verbs</td>
<td>264</td>
</tr>
<tr>
<td>nouns</td>
<td>120</td>
</tr>
<tr>
<td>postpositions and verb particles</td>
<td>42</td>
</tr>
<tr>
<td>adverbs</td>
<td>22</td>
</tr>
<tr>
<td>kinship terms</td>
<td>10</td>
</tr>
<tr>
<td>interjections</td>
<td>9</td>
</tr>
</tbody>
</table>

Creaky toned morphemes are definitely found throughout the language. Verb/adjective pairs. As I noted above, tone *1 verbs with originally voiced initials developed creaky tone in the sentence-final, preparticle slot. Of course not all verb roots occurred exclusively or even primarily in this sentence-final slot; a number of verbal roots
served not just in the sentence-final pre-particle slot as main verbs but also they served as adjectives when modifying a head noun and as nouns when they were nominalized. Thus what was originally a single tone *1 etymon developed two separate reflexes: the expected level toned reflex in non-final position and a creaky toned reflex in sentence-final position.

Tonal variation: level tone vs. creaky

twai 'cling to, attached'
(cf. twai: 'be pendant, hang')
kwan 'casting net'
(cf. kwan 'compass, caliper')
rwam 'be disgusted, loathe; feel repulsion, fear'
ʔswanj 'spindelful of thread'
waŋ-riui: 'spindle'
ŋauj 'pull, draw, spin; grasp'
mau 'ascending, high in slanting direction; haughty'
ŋauj 'stick up obliquely (more than ŋauj?); be strong (as scent)'
ŋau: 'project, stick up or out'
(cf. ŋu 'project convexly';
ʔŋui: 'promontory, projection')
pyau? prau 'quite ripe, very soft (more, than prau?)'
mui elevated, raised in center'
(cf. mau? above)
ŋrim 'still, quiet'
ŋan 'to be saltish, brackish'
ŋum 'enclose, shut up; the quantity taken into the mouth at once; a flower bud'
tan 'stop, remain for a while'
twe 'consolidate, make compact, cohere; be stand firm'
(cf. thwe: 'mixed together')
mrum 'mumbling in speech'

Twai? 'hang suspensively'
kwan? 'enjoy one's self; to move spirally, joyfully'
rwam? 'quail, shrink; feel repulsion, fear' (Allott, 1967:158)
waŋj 'swing around, spin'
ŋauj? 'pull, draw, spin; grasp'
mau? 'turn up face; look up'
ŋauj? 'project'
pyau?prau? 'soft, tender, lax'
mui? 'elevated, raised in center'
mui? 'slightly raised or swelled'
ŋrim? 'soft, gentle; pleasant, as to have a pleasant feeling (as of ' riding, swinging')
ŋan? 'saltish, brackish'
ŋum? 'hold head down, stoop; to bow the head' (Allott, 1967:158)
tan? 'stop, remain for a while'
twe? 'meet'
mrum? 'to chew; mumble'
ʔmrum? 'a cud'

Notice that by and large the creaky toned forms have meanings consistent with their status as main verbs while their level toned counterparts have meanings consistent with their role as adjectives (stativity) or as nouns.
Nouns with verbal origins. A large number of creaky toned nouns exist. Two pieces of evidence establish the originally verbal origin of these forms. First the presence of the creaky tone itself is good evidence since creaky tone originated in the verbal morphology. Second many creaky toned nouns are overtly marked as nominalizations of a verb by the use of the nominalizer ꞃ-:

ʔonam? 'n. a smell, odor, scent' cf. WB nam? 'v. to smell'

Not surprisingly many of the creaky toned nouns still have creaky toned verbal counterparts. The etymologies of two creaky toned nouns are given below:

taun? 'n. a quiver (AJ, 1966:497); ʔetaun? '(from taun?, to be stiff), n. a crystal (Chem.); a pastril (Med.); anything rolled up stiff, or made stiff, in a cylindrical form,...; a pod' (AJ, 1966:49).
cf. WB taun? 'v. to be stiff, firm, not pliant; to make stiff, firm, to make into stiff rolls' (AJ, 1966:497).
ʔohre? '(from hre?, to be before), n. the east' (AJ, 1966:104).

Postpositions. A number of noun particles or postpositions exist where it is simply a case of an originally nominalized verb being used as a head noun in a modifier-head construction before the root gradually began to develop into a postposition. This mechanism can be illustrated by an example from German. In fact in German a number of prepositions still govern the genitive case: während, wegen, (an)statt, and trotz among them. Trotz is nice as an illustrative example because it still has a fully nominal counterpart in der Trotz 'defiance, insolence; obstinacy'. Historically der Trotz des Feiertags with Trotz as the syntactic head and Feiertags 'holiday' as the semantic head developed into trotz des Feiertags in spite of the holiday' with trotz 'in spite of' as a preposition governing the genitive case and Feiertags 'holiday' as the semantic and syntactic head. The development of postpositions was similar in Burmese. [For examples of parallel developments in other languages see Givón 1971].

hnaŋ? 'connective affix; with; verbal affix, imperative in negative sentences' < n. < v. *naŋ 'follow, adhere to' (STC #334).
phraŋ? 'by means of; instrumental affix', ʔophraŋ? 'as regards' < phrac 'happen, be' + yaŋ 'when, if' (Okell, 1969:305).
Verb particles. The presence of a creaky tone on many of them substantiates the belief that verb particles originated as full verbs. A schematic history of the origins of verb particles can be presented. Burmese is a subject-object-verb (SOV) language and, as such, verb strings are frequently composed of a main verb plus a complement. As an illustrative example compare the historical development of the verb particle khyañ 'want' from an earlier position as the main verb in a complement-main verb construction:

\[
\begin{array}{c}
\text{Complement} \quad \text{Main Verb} \\
*\text{VP} \quad \text{Main Verb} \\
\text{Verb Particle}
\end{array}
\]

In Burmese certain verbs occur following a wide variety of other verbs—in fact following virtually any complement (Okell, 1969:25). Khyañ and ne 'stay' are typical of such verbs, although only ne still occurs as an independent main verb. This occurrence after virtually any verb is one sign of impending particlehood. Certain other syntactic properties also correlate with the gradual transition from full verbhood to particle status; for example, a sign of the impending particle status of a former full verb is its increasing inability to be negated. A semantic indication of impending particlehood is that in this post-complement (or, at least, post-head) position, their meaning is less specific and less restricted than it is construction initially. The following pairs illustrate the meaning differences which exist between a simple main verb and the same verb used in auxiliary position:

\[
\begin{array}{c|c}
\text{main verb} & \text{auxiliary position (Okell, 1969)} \\
\hline
\text{swa:} & 'to go' \quad 'go, finish, become' \\
\text{la} & 'to come' \quad 'come, finish, become'; "reach in excellence or degree; to equal" (AJ, 1966:906).
\text{pe:} & 'to give' \quad "frequently used as an auxiliary verb when one wishes another to do something on his behalf" (AJ, 1966:646). \\
\text{pra?} & 'to show' \quad 'demonstrate' \\
\text{ra?} & 'to get, obtain' \quad 'may, can, must' \\
\text{hla?} & 'handsome, pretty, beautiful' \quad 'very, excessively, extremely'
\end{array}
\]
Certain phonological and semantic consequences follow from the fact that, in post-head position, such verbs are not the major information focus of the verb phrase. Destressing follows from the fact such verbs are not the major information focus and eventually leads to phonological reduction. And, in this auxiliary position, the apparent semantic equivalent of destressing occurs: a less restricted, less specific, more generalized meaning.

A full set of still extant synchronic forms historically related to the WB verb pri:/pi: 'to finish' serves to further illustrate the above discussion. The related forms range from an unreduced full verb WB pri/pi: 'to finish' to a partially reduced aspectual particle pi?{po-}:

\[
\begin{align*}
\text{pri:/pi:} & \text{ is a full verb meaning 'to finish'} \> \\
\text{pi:} & \text{ is an auxiliary verb which occurs in non-initial position in a verb string with the range of meanings (Okell, 1969:386): "finish, complete (doing), bring (activity) to an end" } \> \\
\text{pi:} & \text{ is a subordinate marker (and consequently occurs after the auxiliary verbs mentioned above) found after verbs in dependent clauses with the meanings: "after, having, and then, being, and" (Okell, 1969:382).} \> \\
\text{pi/(po-) is a sentence-final particle meaning: "arrival at the point of fulfillment in relation to a given time, hence translatable as 'is V-ing now, has V-ed, is V-ed by now" (Okell, 1969:382).}
\end{align*}
\]

The direction of phonological and semantic changes is parallel to the steady movement from the phrase-initial position of the full verb pri/pi: to the phrase-final position of the aspectual particle pi/(po-).

The fact that most verb particles originated as full verbs is made even more obvious by the fact that a number of them are still marked by creaky tone:

\[
\begin{align*}
\text{hu? " (from hui, to say, declare, mean), verb affix, that, namely" (AJ, 1966: 1057). Note that this particle probably came from a creaky-toned variant of the full verb and not from the level-toned variant as Judson suggests. Alternately the creaky quality is from the use of creaky voice for emphasis.} \\
\text{lan\? 'verbal affix-imperative in the negative'. Okell (1969:364) says that this might come from the verb lan\? 'to wait'. For the semantics compare the uses of the English verb Wait!} \\
\text{mi\? auxiliary verb meaning 'inadvertently'. Okell (1969:358) says that this comes from the full verb mi? 'to catch, snag'.} \\
\text{ra? ?auñ 'shall we?'} \< (Okell, 1969:458) \text{ra? 'get, obtain' + ?auñ 'so as to'. [ra? is from PLB *ra3].}
\end{align*}
\]

Adverbs. Adverbs are, in many cases, simply reduplicated verbs placed before the main verb. The originally verbal origin of at least some of these is testified to by their creaky tone:
Conclusion. A schematic outline of the origins of postpositions and verb particles in Burmese has been provided as well as comments on the origins of certain class of deverbal nouns and some if not all adverbs. In many cases the presence of creaky tone on the morphemes allows us to determine the direction of historical change among a set of related forms although in many cases the direction of change is obvious even without this confirming evidence. In summary I should note that this is only a sketch of some of the most obvious patterns of change and that most of the serious work still remains to be done.5

Notes

1 More precisely the tone originated in sentence-final position before the sentence-final particle now written as kai/rai or kai'/rai' in Burmese. In addition it only occurred on PLB proto-tone 1 proveniences with voiced initials.

2 The more statistically minded among the readers will have noticed that the numbers 350 and 467 are far from identical. In Burmese there are less than 350 words under creaky tone, but there are around 470 forms marked in the orthography such that they might be interpreted as creaky toned forms. In the orthography an extra short a and an extra short u in non-final position [before a former aspirated dental affricate] are both indistinguishable from a creaky toned a or u. Thus the 470 figures represents orthographic creaky tone and the 350 figure represents forms with the actual tone in the modern language.

3 The order of particles is, with few exceptions, quite strictly ordered. The synchronic order represents the order in which the original full verbs reduced to particles with those closest to the verb head being the most recently reduced. Intriguingly there are striking cross-linguistic similarities between particle orderings despite the fact that such orderings must have developed independent from one another (cf. Lahu and Mru).

4 Compare the almost identical use of pretty in English in a pretty flower and pretty good.

5 I shall be astonished if my errors should all prove minor ones and grateful for the corrections from the experts.
Haas, Mary R. c. 1949-52. a collection of notes plus a cardfile on Burmese compiled from field methods classes which she taught.
Matisoff, James A. 1975. Variational semantics in Tibeto-Burman: the "organic" approach to linguistic comparison. 270pp. MS.