Studies in Burmese linguistics
Pacific Linguistics 570

Pacific Linguistics is a publisher specialising in grammars and linguistic descriptions, dictionaries and other materials on languages of the Pacific, Taiwan, the Philippines, Indonesia, East Timor, southeast and south Asia, and Australia.

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Studies in Burmese linguistics

Edited by
Justin Watkins
John Okell

Picture by Sophie Baker
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Acknowledgements

There are many people who have offered help and encouragement throughout this project, and whose enthusiasm have helped to carry it through long periods of stagnation.

The first word of thanks goes to all the contributors (including Hsayama Than Than Win, Ed Garrett, Bert Vaux and others whose work did not, for one reason or another, make it into the book) without whom I would not have had the wonderful experience of editing this book. Your scholarship has taught me a great deal about the language I’m lucky enough spend my life working with.

Several anonymous reviewers undertook very careful readings of several draft manuscripts and offered extensive comments which have without doubt improved the quality of the final versions of those articles.

I’m grateful to Nance Cunningham, Aung Aung, Daw Mar Lay and Ma Mar who answered questions and helped me source obscure Burmese-language references while I was editing the manuscript in Yangon. Rachel Stein cut her copy-editing teeth on several of the articles and made a fine job of some very ragged early drafts.

Paul Sidwell, John Bowden and Malcolm Ross at Pacific Linguistics have been extremely kind to accept a second for publication a second highly technical manuscript to follow The Phonetics of Wa. I’m delighted that they have taken this book on, since Pacific Linguistics gives it the best chance of reaching its target audience at an affordable price. Many thanks to Julie Manley at PL for all her work too.

I asked Jim Matisoff to contribute his preface at the eleventh hour and was amazed that he agreed to write it — and made some valuable observations and corrections in the process. So many thanks to him too.

Despite all this help, it has still taken me over four years to pull my finger out and get the whole manuscript finished. For this, and for any the errors I’ve introduced into the articles where there were none before, I offer apologies and accept full responsibility.
1 Transcription

Spoken Burmese is transcribed in this book according to the following conventions. The rationale behind the decisions taken in deciding upon this system is that the transcription should adhere to IPA conventions without being complicated by too much phonetic detail. See Watkins (2000 and 2001) for a more thorough treatment.

Vowels

(1) and (2) show how vowels are transcribed in this volume, with an indication of the phonetic detail implied.

(1) Vowels in phonologically open syllables (all low tone).

<table>
<thead>
<tr>
<th>Burmese</th>
<th>transcription</th>
<th>IPA</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>မမ</td>
<td>ni</td>
<td>[i]</td>
<td>‘red’</td>
</tr>
<tr>
<td>လာ</td>
<td>le</td>
<td>[e]</td>
<td>‘wind’</td>
</tr>
<tr>
<td>ဝမ်</td>
<td>wè</td>
<td>[ɛ]</td>
<td>‘buy’</td>
</tr>
<tr>
<td>မမ</td>
<td>mà</td>
<td>[a]</td>
<td>‘come’</td>
</tr>
<tr>
<td>မိမိ</td>
<td>mò</td>
<td>[o]</td>
<td>‘look up’</td>
</tr>
<tr>
<td>သင်</td>
<td>tò</td>
<td>[o]</td>
<td>‘short’</td>
</tr>
<tr>
<td>ပု</td>
<td>pù</td>
<td>[u]</td>
<td>‘hot’</td>
</tr>
</tbody>
</table>

(2) Vowels in syllables spelt with final stops (realised as glottal stops) or final nasals (realised as nasal vowels).

<table>
<thead>
<tr>
<th>Burmese</th>
<th>transcription</th>
<th>IPA</th>
<th>gloss</th>
<th>Burmese</th>
<th>transcription</th>
<th>IPA</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>သဖ်</td>
<td>thi?</td>
<td>[i?]</td>
<td>‘new’</td>
<td>သဖ်</td>
<td>thìn</td>
<td>‘new’</td>
<td>[i]</td>
</tr>
<tr>
<td>ပင်</td>
<td>le?</td>
<td>[e?]</td>
<td>‘hand’</td>
<td>ပင်</td>
<td>lè</td>
<td>[a?]</td>
<td>‘hand’</td>
</tr>
<tr>
<td>ဒေ</td>
<td>ha?</td>
<td>[a?]</td>
<td>‘reflect’</td>
<td>ဒေ</td>
<td>hàn</td>
<td>‘style’</td>
<td>[ä]</td>
</tr>
<tr>
<td>ယို</td>
<td>té?</td>
<td>[o?]</td>
<td>‘release’</td>
<td>ယို</td>
<td>jùn</td>
<td>‘lacquer’</td>
<td>[o]</td>
</tr>
<tr>
<td>အတု</td>
<td>?ei?</td>
<td>[e?]</td>
<td>‘sleep’</td>
<td>အတု</td>
<td>ʔèin</td>
<td>‘house’</td>
<td>[ɛ]</td>
</tr>
<tr>
<td>ကြိုး</td>
<td>kai?</td>
<td>[ai?]</td>
<td>‘bite’</td>
<td>ကြိုး</td>
<td>kāin</td>
<td>‘hold’</td>
<td>[äi]</td>
</tr>
<tr>
<td>အိုမိမိ</td>
<td>jau?</td>
<td>[aʊ?]</td>
<td>‘arrive’</td>
<td>အိုမိမိ</td>
<td>tāun</td>
<td>‘mountain’</td>
<td>[aʊ]</td>
</tr>
<tr>
<td>ကြိုမိမိ</td>
<td>lou?</td>
<td>[oʊ?]</td>
<td>‘do’</td>
<td>ကြိုမိမိ</td>
<td>kōun</td>
<td>‘run out’</td>
<td>[oʊ]</td>
</tr>
</tbody>
</table>

Syllables written with an initial vowel symbol are transcribed with initial glottal stops, to make syllabification unambiguous, as in (3):

xii
(3) Initial glottal stop

<table>
<thead>
<tr>
<th>Burmese transcription</th>
<th>gloss</th>
<th>IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြားချစ်</td>
<td>များချစ်</td>
<td>တိုးချစ်</td>
</tr>
<tr>
<td>ကြား</td>
<td>များ</td>
<td>တိုး</td>
</tr>
<tr>
<td>ကြားချစ်</td>
<td>များချစ်</td>
<td>တိုးချစ်</td>
</tr>
</tbody>
</table>

**Tones**

Tones are transcribed as in (4). Note that the diacritics are different from those used in John Okell’s publications and teaching materials (also shown in (4), for comparison).

(4) Transcription of Burmese tones

<table>
<thead>
<tr>
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<th>Burmese transcription</th>
<th>gloss</th>
<th>Okell transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>ကျော်</td>
<td>'shake'</td>
<td>ကျော်</td>
</tr>
<tr>
<td>high</td>
<td>ကျော်</td>
<td>'be bitter'</td>
<td>ကျော်</td>
</tr>
<tr>
<td>creaky</td>
<td>ကျော်</td>
<td>'fee'</td>
<td>ကျော်</td>
</tr>
<tr>
<td>killed</td>
<td>ကျော်</td>
<td>'draw off'</td>
<td>ကျော်</td>
</tr>
</tbody>
</table>

Reduced, ‘toneless’ vowels are transcribed as in (5):

(5) Reduced, ‘toneless’ syllables

<table>
<thead>
<tr>
<th>tone</th>
<th>Burmese transcription</th>
<th>gloss</th>
<th>Okell transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>reduced</td>
<td>ကြား</td>
<td>'table'</td>
<td>ကြား</td>
</tr>
</tbody>
</table>

**Consonants**

(6) shows how consonants are transcribed in this volume, again with an indication of the phonetic detail implied by the transcription.

(6) Transcription of consonants

<table>
<thead>
<tr>
<th>Bse</th>
<th>transcr</th>
<th>gloss</th>
<th>IPA</th>
<th>Bse</th>
<th>transcr</th>
<th>gloss</th>
<th>IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ပြ</td>
<td>ပါ</td>
<td>'include'</td>
<td>[p]</td>
<td>ကြား</td>
<td>ကြား</td>
<td>'look for'</td>
<td>[q]</td>
</tr>
<tr>
<td>ပါ</td>
<td>ပါ</td>
<td>'patch'</td>
<td>[ph]</td>
<td>လေ</td>
<td>လေ</td>
<td>'come'</td>
<td>[l]</td>
</tr>
<tr>
<td>ပြ</td>
<td>ပြ</td>
<td>'what?'</td>
<td>[b]</td>
<td>သိ</td>
<td>သိ</td>
<td>'boat'</td>
<td>[t]</td>
</tr>
<tr>
<td>မ</td>
<td>မ</td>
<td>'hard'</td>
<td>[m]</td>
<td>အမွေကာရာ</td>
<td>အမွေကာရာ</td>
<td>(a town)</td>
<td>[a]</td>
</tr>
<tr>
<td>မ</td>
<td>မ</td>
<td>'order'</td>
<td>[ŋ]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'block'</td>
<td>[k]</td>
</tr>
<tr>
<td>ဝ</td>
<td>ဝ</td>
<td>'cotton'</td>
<td>[w]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'partridge'</td>
<td>[kʰ]</td>
</tr>
<tr>
<td>ကြား</td>
<td>ကြား</td>
<td>'hide'</td>
<td>[m]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'cave'</td>
<td>[g]</td>
</tr>
<tr>
<td>မ</td>
<td>မ</td>
<td>'measure'</td>
<td>[t]</td>
<td>အစော</td>
<td>အစော</td>
<td>'lotus'</td>
<td>[t]</td>
</tr>
<tr>
<td>သိ</td>
<td>သိ</td>
<td>'thick'</td>
<td>[th]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'foot'</td>
<td>[tʰ]</td>
</tr>
<tr>
<td>တ</td>
<td>တ</td>
<td>'that'</td>
<td>[d]</td>
<td>တနော</td>
<td>တနော</td>
<td>'journal'</td>
<td>[t]</td>
</tr>
<tr>
<td>စ</td>
<td>စ</td>
<td>'writing'</td>
<td>[s]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'weep'</td>
<td>[η]</td>
</tr>
<tr>
<td>စ</td>
<td>စ</td>
<td>'hungry'</td>
<td>[sh]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'bird'</td>
<td>[η]</td>
</tr>
<tr>
<td>သ</td>
<td>သ</td>
<td>'lace'</td>
<td>[z]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'right-hand'</td>
<td>[n]</td>
</tr>
<tr>
<td>န</td>
<td>န</td>
<td>'ill'</td>
<td>[n]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'squeeze'</td>
<td>[η]</td>
</tr>
<tr>
<td>န</td>
<td>န</td>
<td>'nose'</td>
<td>[ŋ]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'gape'</td>
<td>[ŋ]</td>
</tr>
<tr>
<td>တ</td>
<td>တ</td>
<td>'farmland'</td>
<td>[ʃ]</td>
<td>ကျော်</td>
<td>ကျော်</td>
<td>'thing'</td>
<td>[h]</td>
</tr>
</tbody>
</table>
2 Transliteration
This book uses the American Library Association and Library of Congress system of transliteration for Old Burmese (OB) and Pāli, and to transliterate the orthographic form of the modern language (Written Burmese; WB). This system, and others, are explained in detail in Okell’s *A guide to the romanization of Burmese*. (London: Royal Asiatic Society, 1971). The main features of the system are set out in (7)-(10) below:

(7) Transliteration of consonants

\[
\begin{align*}
\text{k} & \rightarrow k \\
\text{c} & \rightarrow ch \\
\text{t} & \rightarrow t \\
\text{p} & \rightarrow ph \\
\text{y} & \rightarrow l \\
\text{h} & \rightarrow h \\
\end{align*}
\]

\[
\begin{align*}
\text{m} & \rightarrow m \\
\text{g} & \rightarrow gh \\
\text{d} & \rightarrow dh \\
\text{b} & \rightarrow bh \\
\text{l} & \rightarrow l \\
\text{v} & \rightarrow v \\
\text{s} & \rightarrow s \\
\end{align*}
\]

(8) Transliteration of vowels

\[
\begin{align*}
\text{a} & \rightarrow \text{a} \\
\text{i} & \rightarrow \text{i} \\
\text{u} & \rightarrow \text{u} \\
\text{e} & \rightarrow \text{ai} \\
\text{o} & \rightarrow \text{o} \\
\text{ui} & \rightarrow \text{ui} \\
\end{align*}
\]

(9) Transliteration of medials

\[
\begin{align*}
\text{y} & \rightarrow y \\
\text{r} & \rightarrow r \\
\text{l} & \rightarrow l \\
\text{v} & \rightarrow v \\
\text{h} & \rightarrow h \\
\end{align*}
\]

Combinations of medials are written in the order y, r, l, v, h.

\[
\begin{align*}
\text{y} & \rightarrow yv \\
\text{r} & \rightarrow rh \\
\text{l} & \rightarrow lv \\
\text{v} & \rightarrow vh \\
\text{h} & \rightarrow rvh \\
\end{align*}
\]

(10) Transliteration of other symbols

\[
\begin{align*}
\text{ि} & \rightarrow \text{ि} \\
\text{ि} & \rightarrow \text{ि} \\
\text{ि} & \rightarrow \text{ि} \\
\text{ि} & \rightarrow \text{ि} \\
\text{ि} & \rightarrow \text{ि} \\
\text{ि} & \rightarrow \text{ि} \\
\end{align*}
\]

3 Abbreviations
The following forms of Burmese are referred to in various articles in this volume

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OB</td>
<td>Old Burmese: the language of the 11th–13th century inscriptions</td>
</tr>
<tr>
<td>WB</td>
<td>written Burmese – the orthographical form of the modern language</td>
</tr>
<tr>
<td>CB</td>
<td>colloquial Burmese</td>
</tr>
<tr>
<td>MB</td>
<td>modern Burmese = colloquial Burmese</td>
</tr>
<tr>
<td>FB</td>
<td>formal Burmese</td>
</tr>
</tbody>
</table>
Grammatical forms are glossed consistently throughout all the articles in this volume. This editorial decision was taken so that the reader need not learn a fresh set of abbreviations in preparation for reading each article. The intention has been to reduce the potential for confusion and ambiguity, but I apologise if at times the drive for consistency has had the opposite effect. The following is a list of the abbreviations used, with an example of one Burmese morpheme which may be glossed using each abbreviation.

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Expanded Form</th>
<th>Burmese Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEL</td>
<td>appellative</td>
<td>ဝါဆို</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
<td>Chinese Translation</td>
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<td>--------------</td>
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<td>QUOT</td>
<td>quotation marker</td>
<td>括号引用</td>
</tr>
<tr>
<td>REAL</td>
<td>realis modality</td>
<td>真实时态</td>
</tr>
<tr>
<td>RECIP</td>
<td>reciprocal</td>
<td>互为</td>
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<tr>
<td>REFL</td>
<td>reflexive</td>
<td>反身</td>
</tr>
<tr>
<td>REM</td>
<td>remote; temporal or spatial remoteness</td>
<td>遥远</td>
</tr>
<tr>
<td>RESULT</td>
<td>resultative</td>
<td>结果</td>
</tr>
<tr>
<td>SUBJ</td>
<td>Subject marker</td>
<td>主语</td>
</tr>
<tr>
<td>SUBJUNCREDUP</td>
<td>subjunctive reduplication of verb</td>
<td>虚拟重叠</td>
</tr>
<tr>
<td>SUBORD</td>
<td>subordinate clause marker</td>
<td>从属分句标记</td>
</tr>
</tbody>
</table>
Preface

The papers in this volume constitute an excellent introduction to the burgeoning field of Burmese linguistics, covering a wide range of topics in phonology, grammar, discourse analysis, lexicography, and stylistics.

A.D. Green's 'Word, foot and syllable structure in Burmese' treats Burmese segmental and prosodic phonology in the framework of constraint-based optimality theory. The notion of competing constraints is perhaps useful in describing such unpredictable phenomena as the epenthetic insertion of either a nasal or a glottal element in English loanwords in order to make them conform to the Burmese syllable canon; or the fact that some compounds, but not others, will 'reduce' their first element, often to the status of a stressless prefix. Or do the constraints compete with each other to such an extent that one must finally admit that the essence of natural language is to be incompletely formalisable?

The question of 'freedom of word order' is tackled from the viewpoint of prosodic phonology in 'Information structure, focus and prosody in Burmese' by A. Simpson and J. Watkins. This paper takes an empirical, experimental approach, using questionnaires, acoustic analysis and perceptual tests to measure speakers' reactions to permutations in word order. They demonstrate that this 'freedom' is only relative, and that a host of syntactic, semantic, and pragmatic features govern the speaker's choice of a particular order in a certain context. (In this respect the analysis is reminiscent of the 'competing constraints' of O.T.) The authors show that the focused elements in a Burmese sentence appear typically in preverbal position; they are clearly stressed and do not tolerate repositioning within the sentence. Presupposed material, on the other hand, is destressed, especially when it occurs between the focus and the verb.

D. Bradley's 'Reflexives in literary and Spoken Burmese' provides an exhaustive analysis of the usage of reflexive constructions, both intra- and inter-dialectally, from both the synchronic and diachronic perspectives. The multiplicity of such constructions is ascribable to the 'instability and openness of the Burmese pronoun system', which is in turn related to the redundancy of pronouns in Burmese discourse. This paper is full of interesting titbits, including the observation that there is no evidence of ergativity even in the earliest inscriptions (although a number of modern Lolo-Burmese languages, e.g. Ache, are thoroughly ergative); the striking appearance of reflexives in proverbs (e.g. 'Only one oneself knows his own bellyaches'); and the complex reflexives that appear as four-syllable 'elaborate expressions'.

'Syntactic and morphological markers in Burmese: are they really optional?', by V.B. Kassevich, is a sophisticated meditation on the theoretical nature of optionality. It is connected to the old issue of whether East and Southeast Asian languages are really supra grammaticam, as the great lexicographer Giles felt Classical Chinese to be, because of its relative freedom of word order, the fluidity of its parts of speech, and its lack of obligatory
morphology. Southeast Asian languages dislike redundancy (as is evident, e.g., in Bradley’s discussion of pronominal usage). In Kassevich’s felicitous phrase, speakers of such languages ‘are allowed to adjust the level of redundancy of the text.’ Like the Simpson/Watkins paper, Kassevich’s study is empirical, based on the results of clever experiments devised to test the acceptability of the addition or deletion of grammatical markers. It turns out that certain markers are indeed rather obligatory in many contexts, so much so that additions are more easily accepted by consultants than deletions; i.e. over-differentiation is more tolerated than under-differentiation, proving the Jakobsonian dictum that certain meanings (not necessarily certain morphemes) cannot be dispensed with from language.

K. Okano’s ‘The verb 豚é ‘give’ as a causativiser in colloquial Burmese’ describes the multiple grammaticalisations of this lexeme, which can function
as either a pre-head or a post-head versatile verb in both literary and colloquial usage. As a post-head auxiliary it carries a benefactive/applicative, destination, or transitive/causative meaning. As a pre-head auxiliary it carries an exclusively causative meaning. The relatively recent use of this verb in pre-head position is ascribed to indirect Mon influence, perhaps via the Moulmein dialect of Burmese.

Four papers are devoted to the intricacies of the categories of tense, aspect, and modality (TAM) in Burmese. Since the conclusions of the various authors are rather divergent, these papers provide a valuable airing of the terminological problems involved in this vital grammatical area. Tense, aspect, and modality are categories intimately interwoven in verbal semantics, although different languages emphasise them in different proportions. In ‘Burmese as a modality-prominent language’, A. Vittrant uses D.N.S. Bhat’s criteria of degree of grammaticalisation, obligatoriness and pervasiveness to demonstrate that Burmese is a ‘modality-prominent’ language. All subtypes of modal concepts (clausal/objective, subjective, and speaker/utterance-oriented) are grammaticalised in the language. The pervasiveness of modal distinctions is evidenced by the fact that they play a role in complex as well as simple sentences, especially in nominalizations and in relative clauses. At first it seems as if U. Gärtnert’s paper ‘Is the Myanmar language really tenseless?’ challenges Vittrant’s assertion that the dominant component in Burmese TAM categories is aspect or modality. In particular Gärtnert wishes to reinterpret the contrast between မင် သတ် and မင် မတ် and their variants, which most authors now refer to marking a realis/irrealis distinction, as basically an opposition between non-future and future tenses. (This was apparently also the view of Kassevich in 1990.) Yet she admits that it is ‘mainly a matter of approach or terminology whether an event is called potential or future, actual or past/present’, and it ‘seems pointless to contrast these complementary capacities which are inherent in the VP final markers’. After all it is a question of relative prominence! In his paper ‘Tense in Burmese: a diachronic account’, R. Yanson returns to the question of realis/irrealis vs. non-future /future, basically coming down on the side of the former, partly on historical grounds. He demonstrates that in Old Burmese inscriptions tense did not exist as a purely temporal category, so that temporal semantics in the pre-Pali period could not be expressed by grammatical means. Instead a marker က was used to express affirmative statements independent of tense (much like the Lahu final particle ဗို). Yanson also makes some interesting comments about the influence of Pali grammar on Old Burmese, e.g. that nominalised finite verbs were introduced into Burmese in order to represent Pali participles. Finally, the paper by F.K. Lehman (a.k.a. Chit Hlaing), ‘Towards a formal cognitive theory of grammatical aspect and its treatment
XlX

in Burmese', is concerned with creating a formal theory to account for the aspec
tual distinctions made in Burmese. Whatever one’s views on the fruitfulness of such
endeavours, one can only admire Chit Hlaing’s persistent attempts over the years to
‘mainstream’ the study of Tibeto-Burman languages by showing how very interesting they
are, even from a formal/theoretical point of view.

A welcome new trend in the study of Burmese (as well as other Southeast Asian
languages) is the recent emphasis on connected texts or discourse. In her article
‘Topicalisation in Burmese expository discourse’, P. Hopple investigates the nature of
topicalisation in Burmese, focusing on the use of three topic-marking particles (ဗေဒ္ဓ, ကာက
and ကဥေ) in one particular text. Exploring the nature of the figure/ground distinction in
Burmese grammar, she concludes that ဗေဒ္ဓ marks a background theme, while ကာက and
ကဥေ indicate the social status of participants in the discourse, dominant vs. subordinate,
respectively. Among other functions, the latter two also signal role reversals within an
embedded narrative discourse or the figure/ground Gestalt. While the selection of
topic/theme particles might seem random from the point of view of sentence-based
grammar, a discourse approach motivates the choice of one particle over another.

In a similar vein, San San Hnin Tun’s ‘Discourse particles in Burmese’ analyzes a
corpus of eight texts within the framework of discourse analysis, focusing on
two particles which are affective (interactional) rather than referential, denotative, or
cognitive: ကဗေဒ္ဓ: ကို and ပာရ. Such particles are a Southeast Asian areal feature, and are
naturally polysemous and highly context-sensitive. (They are in fact readily borrowable
into other languages; Lahu also uses ပာရ as an emphatic particle.) Sometimes one can give
quite a precise meaning to such a particle in a given context, e.g. the interesting use of
ကဗေဒ္ဓ: ကို with kinship terms and pronouns in the contexts of ‘self-justification, self-
defence, or reproach’. The author envisions the possibility that the choice of particular
particles may have an idiosyncratic component (much as English speakers have individual
preferences with respect to interjections like ‘goodness me!’ or ‘damn it all!’). I have
noticed the same phenomenon in Lahu texts. Certain speakers have favourite particles, and
these are subject to a sort of intra-textual contagion. Once an emotive particle appears in
the discourse, it tends to occur several times in quick succession, often by both
interlocutors in a conversation.

By far the longest article in this volume is T. Ohno’s ‘The structure of Pagan period
Burmese’, a comprehensive survey of the main features of Pagan period phonology,
morphology and syntax. Despite the highly variable spelling in the inscriptions, much can
be figured out about Old Burmese phonology. Especially interesting are the discussions of
the value of the vowel variously transcribed as ‘i’ or ‘ui’ (or even [i]); and the frequent
but not entirely consistent marking of tonal distinctions. The rare closed syllable rhymes
with medial -e- are shown to have been variants of other combinations for the most part
(although there are grounds for occasionally setting them up at the PLB level). As in Sino-
Tibetan languages in general, the vast majority of noun- and verb-roots were monosyllabic,
although semantically transparent compounds certainly occurred as well. Four-syllable
elaborate expressions already existed, via the prefixation of a- to both parts of disyllabic
verbs. Pronominal prefixes (ဗ- for 1st person, က- for 3rd person) were used to mark
possession with kinship terms (as e.g. in modern Chin languages). Classifiers already
abounded, as did simplex/causative verb phrases, marked by aspiration of the initial
consonant of the causative member. A panoply of post-nominal and post-verbal particles
were already in evidence. In short, the overall structure of Pagan-period Burmese was not
all that different from that of modern Burmese — a reassuring conclusion! The article is richly exemplified, with almost 300 illustrative sentences and an index of grammatical forms.

The agonies and the ecstasies of dictionary-making are vividly evoked in A. Esche’s ‘The experience of writing the first German-Myanmar dictionary’. Although she has tormented herself over the years with the question ‘Is such a dictionary really necessary?’, she fortunately seems finally to have come to the opinion that it was well worth the years of effort and expense to produce it. As a member of the tribe of ‘harmless drudges’ myself (as the redoubtable Dr Johnson referred to us lexicographers), I can well sympathize. But after all is there any enterprise more noble than compiling a dictionary? Dictionaries of a living language can never be complete or totally up-to-date, as languages change before our very eyes. Yet this doesn’t mean that we should give up, especially now with the computer to help us.

Saw Tun’s article, ‘Modern Burmese writing: an examination of the status of colloquial Burmese’, is basically a polemic against introducing lexical items and grammatical constructions characteristic of Formal Burmese (FB) into modern Burmese texts. He decries the ‘muddled mixture of colloquial and literary Burmese’, and the ‘ambiguity and verbosity’ of the FB style. There is definitely a political component to this distaste, given the present government’s fondness for the pretentious weightiness of FB, so that FB is now gaining ground in the government-controlled media. This whole issue is highly reminiscent of the controversies surrounding the gradual and reluctant replacement of the Chinese literary style (文言 wényán) by the colloquial style (白话 báihuà) in the early 20th century, after Sun Yat-sen’s revolution. There is a strikingly close analogy between the recent FB introduction of 她 tā ‘she’ as a feminine third-person pronoun, and the creation of such a concept by the innovative addition of the ‘woman-radical’ to make the character 她 tā from the intrinsically genderless third-person pronoun 他 tā in Mandarin, in order to imitate the high-prestige Western languages with gender distinctions like he/she.

It is a special pleasure for me to conclude with a few words of tribute to my good friend John Okell. John and I got to know each other in the 1960’s, and quickly found that we had much in common, especially a sort of obsessive-maniacal compulsion to immerse ourselves in a Southeast Asian language. The fascinating similarities and differences between Burmese and Lahu have been an endless source of pleasure for us to ponder over the years.

John Okell’s mastery of Burmese language and culture is unparalleled among Western scholars of his generation. His A Reference Grammar of Colloquial Burmese (1969) remains the unchallenged standard work on the subject. He has educated generations of students in all aspects of the field, in the U.K., the U.S. and Thailand. The tapes and other teaching materials he has created during his forty years of pedagogy have exerted a worldwide influence.

On the personal level, to know John is to love him, for his intellectual generosity, his gentle wit, and his very British modesty. Also, one might add, for his musicianship! It has been a cherished feature of our all too infrequent meetings (once, memorably, at Eugénie Henderson’s home in Hampstead) for John to whip out his flute for some flute and piano duets. The growing sophistication of Burmese linguistics evidenced in this volume is due in large part to the work of John Okell. His colleagues and students salute him!

James A. Matisoff
Berkeley, July 2005
Foreword

This book has been in preparation for a shamefully long time. The idea of inviting contributions for an edited book of articles on various aspects of the linguistics of Burma was conceived one quiet afternoon at SOAS in early 2001; little did I know then that the book would still be in preparation in 2005. During the intervening four years I have alternated between chivvying authors into submitting their work and apologising for my own inaction when, for months on end, other teaching and administration duties at SOAS completely eclipsed the Burmese Linguistics Book project.

One reason why this project took such a long time to finish was the decision, taken early on, to ensure consistency of transcription/transliteration and linguistic glossing in the Burmese language material across all the articles in the book, to enable the book to be read more as a coherent whole. This entailed retyping, retranscribing and reglossing the Burmese text of the whole book, because it seems there are as many ways of rendering Burmese script in electronic media, of transcribing it, and of describing the language's functional morphemes as there are linguists with an interest in Burmese. Processing the Burmese text has been unbelievably time-consuming, but worthwhile, I think.

For the Burmese text, I have used the IC Myanmar Bold font — an adaptation by Ian Carter of John Okell’s original Avalaser font (which I had to use for one or two rare symbols found only in inscriptions). Phonetic transcription (or, for Old Burmese material, transliteration) and morpheme-by-morpheme glosses are given for all Burmese material, except for some of the longer passages in the contributions from Saw Tun and San San Hnin Tun. I feel strongly that presenting the Burmese language material without a romanised version of some kind would have made the book inaccessible for linguists who do not read Burmese script.

There exists no other collection of articles dedicated to the linguistics of Burmese, despite the fact that Burmese is a major language of South East Asia with perhaps forty million speakers and many more second-language speakers — more than any other language in the Tibeto-Burman language family. No doubt Burma’s troubled history in recent decades has prevented more linguists from approaching the language analytically. Recent publications on Burmese have included a good number of descriptive grammars, dictionaries and language learning materials, while published linguistic research has been restricted to occasional articles and one or two oldish monographs. The contributors to this volume make up a significant proportion of the small and scattered community of linguists who specialise in Burmese, and I am happy to count among them my teachers, colleagues and friends.

Now that the book has finally come together, I realise how enormously rewarding the editing process has been. Many of the contributors are not native speakers of English, and in some cases they were nervous about submitting work for publication in English and
invited me to rewrite their text as necessary. This, combined with the task of adding consistent transliteration, glossing and formatting, gave rein to a rather free editorial hand, though not without some trepidation with regard to interfering with other people’s work. I have aimed to produce a book which adds weight to the individual articles it contains by presenting them as a readable collection. In some cases, I have collaborated with the authors on substantial rewriting or restructuring of the material they originally submitted; in others, I have done no more than necessary for the article to conform to the book’s transcription, glossing and formatting conventions.

This book is divided into broadly themed sections which cover a range of sub-disciplines within linguistics. The contributors were invited to write on research topics of their own choosing, such that the volume is a snapshot of current research on Burmese, rather than a systematic linguistic survey of the language. While not all the articles are theory-neutral, I hope they remain accessible to a broad readership of people interested in Burmese with no formal training in linguistics. Conversely, many aspects of Burmese covered in the papers in this volume are of obvious interest to a wider constituency of linguists, not just those familiar with Burmese. I hope you enjoy it.

Justin Watkins
London, June 2005

**Burmese or Myanmar?**

At present, the language described in the chapters of this book can be referred to in English as ‘Burmese’ and ‘Myanmar’. I invite readers to regard both terms as equivalent and interchangeable.
Honouring John Okell does not require a book. However, he has had such a profound influence on my life that I am bound to acknowledge my gratitude to him in some formal way, and dedicating this book to him provides the ideal opportunity.

We write to each other a lot as it is: my email archives contain well over a thousand emails between us spanning eleven years. He first cast his spell on me when I joined the beginners’ Burmese language class at SOAS, continued to keep tabs on me for several years after that as joint supervisor of my PhD, and finally sealed my fate when he retired, giving me the opportunity to apply for the Burmese job at SOAS which had last been vacant more than forty years earlier. Possibly more active in retirement than when employed, John is ever on hand to help, entertain, inform, support and guide. We meet regularly at SOAS or at Burma-related events in London, and most recently have made a point of having a leisurely pow-wow over lunch or dinner to exchange (news) and (gossip) after either of us returns from a visit to Burma. I’ll spare him the embarrassment of writing at length. John, I hope you enjoy the articles in this volume, which is dedicated to you with fondness and thanks.

Publications by John Okell

1967 'Translation and embellishment in an early Burmese Jataka poem.' *Journal of the Royal Asiatic Society*, xxx:133-148. [you need to check the volume number]
1967 (with Prof Hla Pe) 'Five Burmese poems on the festival of Thadingyut.' *Eastern Horizon* 6(2):32-36
1967 (with Prof Hla Pe) 'Three Burmese poems for the festival of Thingyan.' *New Orient Bimonthly* 4(6):124-125
1973 'Still and anymore in Burmese: another look at thei, oun and to.' Paper read at the Sixth Sino-Tibetan Conference, University of California at San Diego.


1994 Burmese: an introduction to the Script; Burmese: An Introduction to the Spoken Language, Books 1 and 2; Burmese: an Introduction to the Literary Style [books accompanied by 34 cassette tapes]. DeKalb, IL: Center for Burma Studies, Northern Illinois University.


1996a. the correct title of JO’s entry in Kratz’s volume is Burmese language study (not Studies of Burmese).


1 Introduction

Prosodic phonology is the branch of linguistics concerned with the representation and behaviour of phonological constituents above the segment: syllable, foot, prosodic word, phonological phrase, intonational phrase, utterance. These elements, from the syllable to the utterance, are known as the Prosodic Hierarchy (Selkirk 1984; Nespor and Vogel 1986). Researchers frequently focus on the portion of the prosodic hierarchy between the segment and the prosodic word (also called pword, symbolised \( \rho \)) e.g. Peperkamp (1997), Ewen and van der Hulst (2001), and the papers collected in Hall and Kleinhenz (1999). In this chapter I address theoretical issues in the prosodic phonology of Burmese, examining the structure of the syllable, foot, and prosodic word in Burmese within the constraint-based framework of Optimality Theory (Prince & Smolensky 1993).

In the rest of section 1, I give the inventory of Burmese surface phones — vowels, tones, and consonants, and provide a brief introduction to Optimality Theory. In section 2, I discuss major (= heavy) syllables and show that a violable constraint bans all singly linked place features (not just consonant-al ones, as in many other languages) from the right edge of a syllable in Burmese. I argue that the properties that distinguish major syllables from minor (= light) syllables, including presence of tone and tolerance of onset clusters, are most straightforwardly accounted for with the assumption that all major syllables are feet and that all feet consist of exactly one major syllable. In section 3, I examine minor syllables and show that their shape and distribution are attributable to the constraint against place features in syllable-final position, a markedness constraint against heavy syllables, and constraints requiring all feet and prosodic words to be right-aligned. In section 4, I first show that all prosodic categories are preferably nonbranching in Burmese and then discuss exceptions to the generalization that a pword contains exactly one foot in Burmese, arguing that both the pword and the foot are, in some cases, prespecified in the input. Section 5 concludes the chapter.

* This chapter is a revised version of a paper in Working Papers of the Cornell Phonetics Laboratory 10 (1995), 67–96. I should like to thank the following people for their help and advice: Fraser Bennett, F. K. L. Chit Hlaing, Abby Cohn, Laura Downing, Caroline Féry, Terri Griffith, Daniela Lentge, Máire Ni Chiosáin, David Parkinson, San San Hnin Tun, Hubert Truckenbrodt, Siri Tuttle, Ruben van de Vijver, Ratree Wayland, Julian Wheatley, Moira Yip, Draga Zec, and an anonymous WPCPL reviewer.
1.1 Vowels and tones

The surface vowels and tones of Burmese are shown in (1):¹

(1) The surface vowels and tones of Burmese

<table>
<thead>
<tr>
<th>monophthongs</th>
<th>diphthongs</th>
<th>tones</th>
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<tr>
<td>i</td>
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<td>e</td>
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The syllable structure of Burmese is C(G)V((V)C); the onset consists of a consonant optionally followed by a glide; the rhyme consists of either a monophthong alone, a monophthong with a consonant, or a diphthong with a consonant. Diphthongs cannot occur in open syllables, a fact which will be discussed in more detail in below. Some representative words are shown in (2):²

(2) Basic syllables of Burmese

a. CV  ᶻ mê (term of endearment for wife)
b. CVC ᶻe mê? ‘crave’
c. CGV ᶻe mjê ‘earth’
d. CGVC ᶻe mjê? ‘eye’
e. CVVC ᶻe mjauN (term of address for young men)
f. CGVVC ᶻe mjauN ‘ditch’

Modern Burmese is generally analyzed as having a four-way tone contrast in major syllables, as illustrated by the minimal quadruplet in (3):

(3) The four tones of Burmese (Okell 1969:5)

a. low  œl  kʰà ‘shake’
b. high œl: kʰà ‘be bitter’
c. creaky œ kʰê ‘fee’
d. killed œlê kʰà? ‘draw off’

In principle, this four-way contrast should be describable with two binary distinctive features, but to develop such a theory would be beyond the scope of this chapter.

¹ There is little agreement from one author to another on the designation of the tones. Some authors use terms such as low, high, creaky, checked, falling, heavy, glottalized, etc.; others number the tones 1-4. Among the authors who use numbers, there is even variation as to which tone is given which number. There is also wide variation as to the transcription of Burmese. The names of tones used in this chapter conform with the conventions followed elsewhere in this volume.

² All examples in this chapter are from Bernot (1963), Okell (1969), Esche (1976), or Wheatley (1987), unless otherwise noted.
The phonemic contrast traditionally known as ‘tone’ in Burmese involves not only pitch, but also phonation, intensity, duration, and vowel quality. For this reason Bradley (1982) prefers the term ‘register’ rather than ‘tone’, but I will continue to use the traditional term here, though with the understanding that ‘tone’ refers to all of these properties and not just pitch. Detailed phonetic studies of the Burmese tones include Mehnert and Richter (1972–77, part 3) and Thein Tun (1982).

In syllables with a nasal rhyme, only three tones are possible. The killed tone is excluded from such syllables:

(4)  Three tones in nasal rhymes

a. low  \( \hat{\text{o}} \)  \( k^h\hat{a}\text{N} \) ‘undergo’

b. high  \( \hat{\text{o}}\hat{\text{t}} \)  \( k^h\hat{a}\text{N} \) ‘dry up’

c. creaky  \( \hat{\text{t}}\hat{\text{o}} \)  \( k^h\hat{a}\text{N} \) ‘appoint’

This fact can be explained by assuming that \( \text{N} \) and \( \text{?} \) are both required to stand in coda position, but Burmese phonotactics do not allow complex codas. To avoid this conflict, one of the consonants must be deleted. Native Burmese vocabulary lacks phonological processes which would allow us to determine what the output of a hypothetical input like \( /\text{tN}?/ \) would be, but evidence from loanwords may be brought to bear. In general, final obstruents in other languages all become \( \text{?} \) in Burmese, for example \( \text{c}\text{i}\text{l}\text{o}\text{tj}\text{u}\text{l}\text{i}? \) ‘tulip’. Foreign words that end in nasal + obstruent clusters usually become nasal rhymes in creaky tone in Burmese, for example \( \hat{\text{t}}\hat{\text{t}}\text{p}\hat{\text{a}}\text{i}\text{n} \) ‘pint’. This suggests that in the presence of \( \text{N} \), the glottalization normally associated with killed tone surfaces instead in creaky tone.

Burmese, like many South East Asian languages, has a distinction between major and minor syllables. The exact definition of major and minor syllables varies from language to language, but in general the distinction seems to parallel the distinction between heavy and light syllables found in all languages. Following Moraic Theory (Hyman 1985; McCarthy and Prince 1986; Hayes 1989), we may assume that minor (light) syllables contain one unit of weight, called a mora (symbolised \( \mu \)), while major (heavy) syllables contain two moras.

In most languages that have the major/minor syllable distinction, including Burmese, a word must contain at least one major syllable and may not end with a minor syllable. In Burmese, the characteristics of a major syllable are:

(i)  it may contain any vowel except \( \text{a} \);

(ii) it may be an open or closed syllable;

(iii) it bears tone;

(iv) it may have a simple (C) or complex (CG) onset.

All the words in (2) above are examples of major syllables. The characteristics of a minor syllable in Burmese are:

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3 The terms ‘major syllable’ and ‘minor syllable’ seem to have been used first by Henderson (1952) for Cambodian and Shorto (1960) for Palaung.

4 Duanmu (1990) argues that all syllables are heavy in Chinese, which does not have the major/minor syllable distinction.
(i) it may only contain the vowel ə;
(ii) it is an open syllable;
(iii) it does not bear tone;
(iv) it has only a simple (C) onset;
(v) it is not the final syllable of the word.

This last restriction (v) entails that a word may not contain only minor syllables. In the examples in (5), all non-final syllables are minor and all final syllables are major.

(5) Words containing minor syllables

a. ကျွေး  kha.lou?  ‘knob’
b. ကျွေး  pa.lwe  ‘flute’
c. စွွေး  θa.jɔ  ‘mock’
d. ကျွေး  ka.ʃe?  ‘be frivolous’
e. ကျွေး  thə.majè  ‘rice-water’

It is also possible for a non-final syllable to be major, for example the first syllable of မြို့ ဗုဒ္ဓ ဗုဒ္ဓာ  ‘women’s clothing’.

1.2 Consonants

The consonants of Burmese are shown in (6):

(6) The consonants of Burmese

<table>
<thead>
<tr>
<th>stops/affricates</th>
<th>fricatives</th>
<th>nasals (N is placeless)</th>
<th>approximants</th>
</tr>
</thead>
<tbody>
<tr>
<td>p t ʔ k</td>
<td>ʃ s (δ) h</td>
<td>m n n  ᶠ</td>
<td>j w (r)</td>
</tr>
<tr>
<td>pʰ th tʰ kʰ ʔ</td>
<td>ʃʰ z</td>
<td>m n n  ᶠ</td>
<td>ɪ (w)</td>
</tr>
<tr>
<td>b d dz g</td>
<td></td>
<td>m n n  ᶠ</td>
<td></td>
</tr>
</tbody>
</table>

The approximants r and w are rare; δ is a voiced allophone of ʃ.

The feature distinguishing the voiced and voiceless sonorants is probably not [voice] but [spread glottis]. In other words, the voiceless sonorants are phonologically aspirated. Evidence for this comes from a set of about 50 pairs of verbs in which the intransitive or passive member of each pair begins with a nonaspirated sound, while the transitive, causative, or active member begins with the aspirated correlate (Okell 1969:42, 205ff.). Examples are shown in (7); in ʃ, ʃ functions as the aspirated equivalent of j.
Unaspirated/aspirated verb pairs

[-s.g.] initial: passive/intransitive  [+s.g.] initial: active/transitive

a. ပjà?  ‘be cut’  ပʰjà?  ‘cut’
b. ခjà?  ‘be cooked’  ခʰjà?  ‘cook’
c. קswana?  ‘be split’  קʰswana?  ‘split’
d. စိုးး  ‘be torn’  စိုးးးး  ‘tear’
e. မိုးး  ‘be buried’  မိုးးး  ‘bury’
f. နိုး  ‘be warm’  နိုး  ‘make warm’
g. ဗိုး  ‘be alight’  ဗိုး  ‘set alight’
h. လိုး  ‘be set free’  လိုး  ‘set free’
i. ကြက်  ‘be reduced’  ကြက်  ‘reduce’
j. ဘီ  ‘be moved’  ဘီ  ‘move’

All consonants except the placeless nasal န are allowed in onset position, and an onset consonant is obligatory in Burmese. Thus vowel-initial words of English and Pāli are borrowed into Burmese with initial ဗ, for example အင်း  ‘engine’, ယူ  ‘space, universe’ (< Pāli .akāsa). Only placeless consonants are allowed in coda position, namely န and the placeless nasal န (which is realised as nasalization on the preceding vowel, with an approximate coronal articulation after monophthongs and an approximate velar articulation after diphthongs (Bennett & Lehman 1994)). Although ဗ is placeless, it does not appear in coda position, presumably reflecting the cross-linguistic tendency to disfavour coda ဗ.

1.3 Optimality Theory

Optimality Theory or OT (Prince & Smolensky 1993; McCarthy & Prince 1993b; Archangeli & Langendoen 1997; Kager 1999; Boersma et al. 2000; McCarthy 2002) is a theory of generative grammar built around the concept of the violable constraint. According to OT, the grammar of a language consists of a ranked hierarchy of constraints: constraints may be violated if violation of one constraint spares a violation of a higher-ranking constraint. The constraints are held to be universal, i.e. present in the grammar of every human language, but their hierarchical ranking differs in every language. Constraints are in principle violable, however every language has some constraints that are undominated in that language’s hierarchy and hence never violated.

The lexicon of a language is held to consist of a list of inputs which the speaker compiles as a learner; each input corresponds to a set of candidate outputs generated by a function called Gen. These candidates compete with each other to determine the optimal output — the actual surface form pronounced by the speaker. An evaluator function (known in the OT literature as EVAL) judges competing candidates against the constraint hierarchy. This evaluation is represented graphically by means of a tableau, as shown in (8). In this tableau, A, B, and C stand for constraints; they are ranked from left to right,

5 See Trigo (1988) for a full discussion of the behavior of placeless nasals (she calls them nasal glides) across languages.
showing that constraint A outranks B, and B outranks C (in shorthand, A » B » C). The
candidates are φ, χ, and ψ; violations of each constraint are marked *. A is the highest
ranking constraint, therefore φ’s violation of A is fatal (fatal violations are marked with the
exclamation point !). χ and ψ do not violate A, however χ violates constraint B and thus
eliminated from consideration. ψ only violates the lowest ranked constraint C and is
therefore selected as the optimal candidate, i.e. the actual surface form. The symbol ⇝
points to the optimal candidate. Shaded cells indicate that the violation or fulfillment of a
constraint is irrelevant to the evaluation process:

<table>
<thead>
<tr>
<th>INPUT</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>φ</td>
<td>*!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>χ</td>
<td></td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>⇝ψ</td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

There are three major kinds of constraints: faithfulness constraints, markedness constraints,
and alignment constraints. Faithfulness constraints govern the relationship between the
input and the output by requiring identity between the two.6 If any element of the input
has no correspondent in the output, a constraint of the family MAX (maximization) is
violated; in effect, MAX constraints prohibit deletion. If any element of the output has no
correspondent in the input, a constraint of the family DEP (dependency) is violated; in
effect, DEP constraints prohibit insertion. Finally, if any input-output correspondence pair
differs in the value of any feature, a constraint of the family IDENT (identity) is violated; in
effect, IDENT constraints prohibit alteration of segments.

Markedness constraints make general statements about phonological well-formedness;
generally, any structure that is marked in comparison to another structure will violate a
markedness constraint. The relative ranking of markedness constraints and faithfulness
constraints determines which marked structures will be allowed in a language: a marked
structure is allowed if the relevant faithfulness constraint outranks the markedness
constraint prohibiting the structure.

The third type of constraint encountered in OT are alignment constraints (Prince &
Smolensky 1991; McCarthy & Prince 1993a). These constraints require certain prosodic
or morphological entities to share an edge with certain other prosodic or morphological
entries. Alignment constraints generally have the form Align (κ, E; λ, E’) where κ and λ
are prosodic or morphological categories and E and E’ are edges (left or right). κ is
quantified universally while λ is quantified existentially: a prose statement of the
constraint is: ‘For every κ there is some λ such that the E edge of κ is aligned with the
E’ edge of λ.’ E and E’ need not be the same (for example the left edge of a suffix may be
aligned with the right edge of a root), but in practice they are very often the same. Hence
the shorthand notation Align-L(κ, λ) (‘the left edge of every κ is aligned with the left
dge of some λ’) and Align-R(κ, λ) (‘the right edge of every κ is aligned with the right edge of
some λ’) are often used.

6 Actually there are other pairs of forms that can stand in a correspondence relationship to each other, not
just input and output. But in this chapter I consider only input-output correspondences, and use MAX and
DEP as shorthand for MAX-IO and DEP-IO. See McCarthy and Prince (1995) for more discussion on
constraints governing correspondence relationships.
More details about Optimality Theory will be introduced in the course of this chapter, as they become relevant to the discussion of Burmese prosodic phonology.

2 Major syllables

A major syllable in Burmese consists of an obligatory onset (any of the consonants in (6)) except N) followed by one of the fifty possible rhymes listed in (9):

(9) The fifty rhymes of major syllables (adapted from Thein Tun 1982)

<table>
<thead>
<tr>
<th>NON-NASAL RHYME</th>
<th>NASAL RHYME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>/i/</td>
<td>i</td>
</tr>
<tr>
<td>/u/</td>
<td>ü</td>
</tr>
<tr>
<td>/a/</td>
<td>å</td>
</tr>
<tr>
<td>/e/</td>
<td>é</td>
</tr>
<tr>
<td>/ai/</td>
<td>é</td>
</tr>
<tr>
<td>/ei/</td>
<td>é</td>
</tr>
<tr>
<td>/au/</td>
<td>o</td>
</tr>
<tr>
<td>/ou/</td>
<td>o</td>
</tr>
</tbody>
</table>

In this section I explore the nature of major syllables in more detail, focusing in §2.1 on the hypothesis that all major syllables are bimoraic; in §2.2 on the constraint against place features at the right edge of the syllable; in §2.3 on the claim that major syllables are monosyllabic feet; and in §3.1.4 on the relationship between tone and the foot (i.e. the major syllable).

2.1 Bimoraicity

As alluded to above, a word in Burmese must contain at least one major syllable, which may be defined as a syllable whose nucleus is a full vowel — i.e. any monophthong or diphthong except a. Examples are given in (10):

(10) Major syllables

a. ൫़ kʰâ ‘shake’

b. ൫़ kʰàn ‘undergo’

c. ൫़ kʰâ? ‘draw off’

Vowel length is not contrastive in Burmese, but as previously mentioned, we may hypothesise that major syllables are all bimoraic, while minor syllables are monomoraic. In open major syllables like kʰâ the vowel is presumably bimoraic, while in closed syllables like kʰàn and kʰâ? the vowel and the coda consonant support one mora each, as shown in (11). (The syllable is symbolised σ):
Mehnert and Richter (1972–77: Part 3, 148–150) show that the duration of the rhyme of a minor syllable varies from 25 to 50 ms, while the duration of the rhyme of a major syllable varies from 150 to 600 ms. The difference in duration of major and minor syllables can be straightforwardly represented as a difference in syllable weight: minor syllables are light or monomoraic, and major syllables are heavy or bimoraic.\footnote{Another possibility, suggested to me by both Abby Cohn and Laura Downing, is that minor syllables are nonmoraic. I do not have space in this chapter to compare that hypothesis with the view taken here, that minor syllables are monomoraic.} The wide variation in range of duration within major syllables (150–600 ms) is due to the fact that tone, rather than weight, is the primary determiner of duration in Burmese: Killed tone syllables are very short, Creaky tone syllables somewhat longer, Low tone syllables longer still, and High tone syllables longest of all (Thein Tun 1982).

2.2 Restrictions on place features

The phonotactic restrictions on the rhymes of major syllables are the following: the diphthongs ei ai ou au must be closed by one of the coda consonants ? or n (12); the mid monophthongs e o o must occur in open syllables (13); e may occur in an open syllable or a syllable closed by ?, but no syllable may end in EN (14).

(12) Diphthongs only in closed syllables

\begin{itemize}
    \item a. \begin{tabular}{c}
        \textit{ei}?
    \end{tabular} \textit{'sleep'} \begin{tabular}{c}
        \textit{ei}
    \end{tabular} \textit{house'} \begin{tabular}{c}
        \textit{ei}
    \end{tabular} \textit{house'} \begin{tabular}{c}
        \textit{ei}
    \end{tabular} \textit{house'}
    \item b. \begin{tabular}{c}
        \textit{ai}?
    \end{tabular} \textit{arrive'} \begin{tabular}{c}
        \textit{ai}
    \end{tabular} \textit{sit'} \begin{tabular}{c}
        \textit{ai}
    \end{tabular} \textit{sit'}
    \item c. \begin{tabular}{c}
        \textit{ou}?
    \end{tabular} \textit{sew'} \begin{tabular}{c}
        \textit{ou}
    \end{tabular} \textit{overspread'} \begin{tabular}{c}
        \textit{ou}
    \end{tabular} \textit{overspread'}
    \item d. \begin{tabular}{c}
        \textit{au}?
    \end{tabular} \textit{stone'} \begin{tabular}{c}
        \textit{au}
    \end{tabular} \textit{cat'} \begin{tabular}{c}
        \textit{au}
    \end{tabular} \textit{cat'}
\end{itemize}

(13) e o o only in open syllables

\begin{itemize}
    \item a. \begin{tabular}{c}
        ?
    \end{tabular} \textit{be cold'} \begin{tabular}{c}
        ?
    \end{tabular} \textit{be cold'} \begin{tabular}{c}
        ?
    \end{tabular} \textit{be cold'}
    \item b. \begin{tabular}{c}
        \textit{ho}
    \end{tabular} \textit{be sweet'} \begin{tabular}{c}
        \textit{ho}
    \end{tabular} \textit{be sweet'} \begin{tabular}{c}
        \textit{ho}
    \end{tabular} \textit{be sweet'}
    \item c. \begin{tabular}{c}
        \textit{ho}
    \end{tabular} \textit{fry'} \begin{tabular}{c}
        \textit{ho}
    \end{tabular} \textit{fry'} \begin{tabular}{c}
        \textit{ho}
    \end{tabular} \textit{fry'}
\end{itemize}
Diphthongs in closed syllables are presumably monomoraic in Burmese, so that a syllable like သိန်း 'sew' (12c) has the structure shown in (15):

\[
\begin{array}{c}
\sigma \\
\mu \\
t\mu \\
ou ?
\end{array}
\]

In this section I will show that the ban on diphthongs in open syllables can be linked to an independent fact of Burmese phonology, namely that coda consonants are obligatorily placeless.

The Coda Condition (Steriade 1982; Itô 1986, 1989; Yip 1991) was devised as a way of restricting the occurrence of features in the coda; for example, by prohibiting place features. A Coda Condition doing just this was formalised by Itô (1989) as in (16):

\[
\text{Coda Condition} \quad * \quad \text{PLACE}
\]

Burmese patently obeys this constraint, as the only permissible coda consonants, ? and N, are both placeless. Application of the Coda Condition has traditionally been confined to consonantal place features, as in Itô's (1989) illustration with Japanese. In this language, the only licit coda consonants are the placeless nasal N (e.g. /hon/ 'book'), the first halves of geminates (e.g. /kitte/ 'stamp') and homorganic nasal-stop clusters (e.g. /tombo/ 'dragonfly'). Itô argues that the latter two cases are not violations of the Coda Condition, because the place features are licensed by the onset position, and the coda consonants merely share the onset consonants' place features. This situation also applies to Burmese; coda ? and N tend to assimilate in place to a following consonant, as illustrated in (17):
(17) Place assimilation

a. 

\[ \text{ja[kk]we?} \rightarrow \text{ja?kw} \text{e?} \] 'area, quarter'
\[ \text{sei[t?]in} \rightarrow \text{sei?t} \text{in} \] 'opinion'
\[ \text{lo[u[sz]a?} \rightarrow \text{lo?za?} \] 'fictitious story'

b. 

\[ \text{pjáu[nk]oun} \rightarrow \text{pjáun.kóun} \] 'alter completely'
\[ \text{apji[nth]we?} \rightarrow \text{apjin.t} \text{we?} \] 'go outside'
\[ \text{θâ[ndz]ei?} \rightarrow \text{θán.Dei?} \] 'iron hook'

As in Japanese, coda place features in Burmese must be licensed by being linked with an onset consonant, as illustrated in (18):

(18) Linked coda consonants

a. 

\[
\begin{array}{cccccc}
\sigma & & & & & \\
\mu & \mu & \mu & \mu & \\
\tau & j & a & kw & \varepsilon & ? \\
\end{array}
\]

\[ \text{ja?kw} \rightarrow \text{ja[kk]we?} \]

b. 

\[
\begin{array}{cccccc}
\sigma & & & & & \\
\mu & \mu & \mu & \mu & \mu \\
\tau & p & j & á & u & \varepsilon & ? \\
\end{array}
\]

\[ \text{pjáu[nk]oun} \rightarrow \text{pjáun.kóun} \]

However, unlike Japanese, Burmese apparently prohibits not only consonant place features but also vowel place features from the right edge of a syllable. This extension of the Coda Condition to vowel place features can explain the complementary distribution of diphthongs and monophthongs seen above. Specifically, if all place specifications are barred from the right edge of the syllable, diphthongs can be excluded from open syllables, because to allow diphthongs in open syllables is to allow the place features of the second element of the diphthong to occur at the syllable's right edge. Thus a structure like *tái is ill-formed for the same reason as *tak, namely that each syllable contains at its right edge a segment with place features.

A question that immediately arises with this analysis is how a syllable like \( \text{ʃl kʰà} \) 'shake' (3)a can be well formed, since it too contains at its right edge a segment \([a]\) that has place features. The answer is that major syllables are bimoraic, so that the place features under the second mora in (11)a are licensed by the first mora, just as the place features under the second mora in the first syllable of each of (18)a and b are licensed by the following onset. In OT terms, the constraint banning place features from the right edge of a syllable may be named \( \text{^*PLACE} \), and stated as in (19): ⁸

---

⁸ Itō and Mester (1994, 1999) define the constraint CODA CONDITION positively as Align-L \([\text{PLACE}], \sigma \). A similar statement of \( \text{^*PLACE} \), is not possible as it would not able to judge between well-formed \([\text{tʰou}]\) 'sew' and ill-formed \([\text{tʰou}]\) with regard to the place features of \( u \).
The rightmost mora of a syllable does not dominate Place features.

\[ *_{\text{PLACE}} \]

According to the Linking Constraint of Hayes (1986), association lines are interpreted exhaustively; in this case, that means that \( *_{\text{PLACE}} \), is violated only if the Place features are linked exclusively to the final mora of the syllable. The coda consonants of the first syllables of \([\text{jakkweʔ}]\) and \([\text{pjáurkòun}]\) in (18) do not violate \( *_{\text{PLACE}} \), because their Place features are associated with the following syllable as well. Likewise, the \([\dot{a}]\) in \([\text{khà}]\) does not violate it, because its Place features are associated not only with the final mora, but with the first mora as well.

In Burmese words that have been borrowed from English, a syllable-final obstruent in the English source word is generally replaced by \( \theta \), e.g. \([\text{keʔ}]\) ‘cap’, \([\text{keiʔ}]\) ‘cake’, \([\text{kouʔ}]\) ‘coat’. If the place features of the coda consonant of each English source are present in the input, then the faithfulness constraint \( \text{MAX(Place)} \) (20) is violated in these forms, but \( *_{\text{PLACE}} \) is fulfilled. This allows us to deduce the ranking \( *_{\text{PLACE}} \gg \text{MAX(Place)} \). The tableau in (21) illustrates this ranking for \([\text{keiʔ}]\) ‘cake’.

\[ \text{MAX(Place)} \]

Place features in the input have correspondents in the output.

<table>
<thead>
<tr>
<th>/keik/</th>
<th>( *_{\text{PLACE}} )</th>
<th>( \text{MAX(Place)} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>keik</td>
<td>( * )</td>
<td>( \ast )</td>
</tr>
<tr>
<td>ꜫkeiʔ</td>
<td>( \ast )</td>
<td>( \ast )</td>
</tr>
</tbody>
</table>

Because of the Linking Constraint, the candidate ꜫ \([\text{khà}]\) with a bimoraic vowel does not violate \( *_{\text{PLACE}} \): as can be seen in (22) the place features of the \( \ast \) are not linked exclusively to the final mora of the syllable, but to the first mora as well.

(22) \([\text{khà}]\) ‘shake’ (10)a.

But a diphthong in an open syllable would violate \( *_{\text{PLACE}} \), as in (23).

---

9 If a learner first hears the word \([\text{keiʔ}]\) from another Burmese speaker, the input posited will be \(/\text{keiʔ}/\), not \(/\text{keik}/\), but the point is that in the cases where the English word does directly provide the input, the grammar of Burmese provides a constraint ranking that produces a grammatical output.
In this form, the place features of the [i] are uniquely linked to the second mora of the syllable, in violation of *PARSE]_a. How is this problem solved? Loanwords from English that contain /ai/ or /au/ in an open syllable take an epenthetic coda consonant in Burmese, as in the examples in (24).

(24) Loanwords from English with epenthetic consonants after /ai, au/

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>coma</td>
<td>pàundà</td>
</tr>
<tr>
<td>b.</td>
<td>30105</td>
<td>shainkalóun</td>
</tr>
<tr>
<td>c.</td>
<td>20205</td>
<td>zulain</td>
</tr>
<tr>
<td>d.</td>
<td>30105</td>
<td>?ain?òdin</td>
</tr>
<tr>
<td>e.</td>
<td>20205</td>
<td>darainba</td>
</tr>
<tr>
<td>f.</td>
<td>20205</td>
<td>dainjari</td>
</tr>
<tr>
<td>g.</td>
<td>20205</td>
<td>ne?tain</td>
</tr>
<tr>
<td>h.</td>
<td>20205</td>
<td>galai?dà</td>
</tr>
<tr>
<td>i.</td>
<td>20205</td>
<td>tai?phún</td>
</tr>
</tbody>
</table>

It does not appear to be predictable whether the epenthetic coda consonant is 3 or 1 - indeed sometimes either is possible — but either way these examples show that the faithfulness constraint DEP(SEG) (‘a segment in the output has a correspondent in the input’), which prohibits epenthesis, is violated in order to avoid a violation of *PLACE]_a, as shown in (25).

(25) /daijari/ *PLACE]_a DEP(SEG)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>dài.jà.ri</td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>&amp; dàin.jà.ri</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

The diphthongs ei ou au are in complete complementary distribution with the monophthongs e o o since the diphthongs occur only in closed syllables and the monophthongs only in open syllables. Because *PLACE]_a outranks MAX(Place), as we determined in (21), an input providing a diphthong with no following consonant, e.g. /tehòu/, has as its optimal output a form with a monophthong, e.g. a70 tehò ‘be sweet’(13).

---

10 The most commonly found tone in open syllables in English loanwords is Low, which may be regarded as the least marked tone of Burmese and therefore the one that surfaces when the input provides no tone.

11 The alternative hypothesis, that input monophthongs e o o have diphthongal output allophones, would have grave difficulties motivating diphthongization in closed syllables.
On the other hand, when the diphthong is followed by a (placeless) coda consonant, as in /tbhou7/ ‘sew’(12)c, the diphthong is no longer in syllable-final position. In this case, *[PLACE]o will not be violated, and the candidate *[tbhō?] fails because it violates MAX(PLACE).

This explanation will hold for the other monophthong/diphthong pairs seen above in (12)–(13): /lē/ vs. /lēin/ and /lēi?/; /lēɔ/ vs. /lēaun/ and /lēau?/. Thus we may conclude that the monophthongs e o o are output allophones of input ei ou au. Since e and ai both occur before ? (e.g. oocfS sh£7 ‘continue’ vs. oocfS shai7 ‘arrive’ (12)b; oocfS t£7 ‘go up’ vs. oocfS tai7 ‘attack’), they are separate phonemes /e/ and /ai/. Elsewhere the two are in complementary distribution, as only ai but not e appears before N and only e but not ai appears in open syllables.

2.3 Monosyllabic feet

Following standard definitions of feet (Allen 1973; Hayes 1980; Selkirk 1980b), we may assume that heavy (μµ) syllables are in fact feet; because long vowels, falling diphthongs, and vowel + consonant sequences all have more prominence on the first mora than the second, these feet may be considered left-headed and therefore trochaic.12 The fact that the first mora of a heavy syllable licenses Place features while the second mora does not is additional evidence for the left-headedness of heavy syllables. Any minor syllables preceding a major syllable remain unfooted, as shown in (28) where parentheses indicate foot boundaries.

(28) Monosyllabic feet in Burmese

| a.  | oœ | (bê) | ‘duck’ |
| b.  | oœː | (pân) | ‘flower’ |
| c.  | œː | (nî?) | ‘year’ |
| d.  | oœː | zœ(bwê) | ‘table’ |
| e.  | oœːœː | thəma(jê) | ‘rice-water’ |

12 See Kager (1993) on the internal prominence contour of heavy syllables.
According to Grouping Harmony (Prince 1990), (LL) is as harmonious a foot as (H); the two should be equivalent. But although a Burmese word may consist of a single heavy syllable, no Burmese word consists of two light (minor) syllables; *[LL] is not a possible word shape, and therefore presumably not a possible foot. This fact may be attributed to two undominated constraints aligning each edge of a foot with the edge of the head syllable of the foot.

(29) ALIGN-L(f, ó)

The left edge of each foot is aligned with a foot-head.

(30) ALIGN-R(f, ó)

The right edge of each foot is aligned with a foot-head.

Since only one syllable can be the head of any foot, only monosyllabic feet can obey both of these constraints, as illustrated in the tableau in (31):

(31)

<table>
<thead>
<tr>
<th>Align-L(f, ó)</th>
<th>Align-R(f, ó)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ó σ)</td>
<td>*</td>
</tr>
<tr>
<td>(σ ó)</td>
<td>*</td>
</tr>
<tr>
<td>(ó)</td>
<td></td>
</tr>
</tbody>
</table>

Every pword in Burmese must end in a major syllable, i.e. a foot. This implies that not only ALIGN-L(f, ó) and ALIGN-R(f, ó) but also ALIGN-R(ω, f) (32) (McCarthy & Prince 1993b, 32) are undominated and inviolable in Burmese.

(32) ALIGN-R(ω, f)

The right edge of every pword is aligned with the right edge of some foot.

As the tableau in (33) shows, only pwords of the form [(ó)], [σ(ó)], and [σσ(ó)] (the canonical word shapes of Burmese), meet all three constraints.

(33)

<table>
<thead>
<tr>
<th>Align-L(f, ó)</th>
<th>Align-R(f, ó)</th>
<th>ALIGN-R(ω, f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[(ó)]ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[σ(ó)]ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[σσ(ó)]ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[(ó)σ]ω</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>[(óσ)]ω</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>[(óσ)σ]ω</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>[(σó)σ]ω</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>
In the next section we see how these three alignment constraints interact with other constraints to determine the form and distribution of minor syllables.

3 Minor syllables

Minor syllables contain only the vowel a in Burmese. They contain neither tone nor coda consonants, do not allow complex onsets, and may never appear in the final position of a word. As we have seen, major syllables are bimoraic; it is reasonable to suppose that minor syllables are monomoraic. This supposition is borne out by the phonetic evidence of Mehnert and Richter (1972–77), who show that the duration of minor syllables has a range of 25–50 ms, while the duration of major syllables has a range of 150–600 ms.

Minor syllables often occur as the initial syllable of a bisyllabic monomorphemic word like [kʰəlouʔ] ‘knob’. In this case, the toneless schwa is probably already represented as such in the input since the learner is confronted with no alternations that would justify any other input. But minor syllables arise also in a kind of compound word that I refer to as a ‘reducing compound.’ In a reducing compound, the last syllable of a non-final member of the compound is reduced from a major to a minor syllable. Some examples of reducing compounds are shown in (34). (The obstruent voicing seen on the final element of some of these compounds will not concern us here, as it does not affect prosodic structure.)

(34) Reducing compounds

a. [tæn pʰɔ] > tæbɔ ‘floor’ + ‘insect’ > ‘bed-bug’
b. [ŋəʔu] > ŋəʔu ‘fish’ + ‘egg’ > ‘fish-spawn’
c. [ŋiʔ ʃa] > ŋala ‘two’ + ‘month’ > ‘two months’
d. [θɔw ʃɛ] > θajè ‘tooth’ + ‘juice’ > ‘saliva’
e. [tʰəmɛn ʃɛ] > tʰəmajɛ ‘rice’ + ‘water’ > ‘rice-water’
f. [kælɔ pʃɛ] > kælblɛ ‘Indian’ + ‘country’ > ‘India’

As can be seen from these examples, a number of phonological processes happen under reduction: tone is lost; all vowel place features are lost, leaving only placeless a behind; a coda consonant is lost (cf. (34)); and an onset cluster is simplified (cf. (34)). All of these processes find a single explanation if we assume that minor syllables are unfooted, an assumption that can be attributed to the role of ALIGN-L(⟨f, 0⟩), ALIGN-R(⟨f, 0⟩), and ALL-FT-R(35). As discussed above, ALIGN-L(⟨f, 0⟩) and ALIGN-R(⟨f, 0⟩) are undominated in Burmese; both they and ALL-FT-R crucially outrank PARSE-σ(36). The domination of ALL-FT-R cannot be demonstrated with the tableau in (37), although we will see that it can be violated.

(35) ALL-FT-R

Align-R(⟨f, 0⟩): the right edge of every foot is aligned with the right edge of some pword.

13 See Yip (1996) on the shape of the input in the absence of alternations.
Syllables are parsed into feet.

Each of the four phonological processes found in reducing compounding — loss of tone, loss of vowel place features, loss of the coda nasal, and onset simplification — are attributable to the loss of foot status under syllable reduction. In the following section I shall analyze each of these processes in turn, beginning with the loss of tone.

3.1 Loss of tone

The loss of tone under syllable reduction may be viewed as the interaction between the constraints FOOT SALIENCE (FTSAL) and *TONE. FTSAL was defined by Zec (1999) for Neo-Štokavian as ‘A foot is associated with High tone,’ because in that language only High tone is present in the input, while Low tone is the default for syllables not marked with High. In Burmese on the other hand, all the tones are apparently present in the input, so FTSAL must be stated more generally.

(38) FTSAL (Zec 1999)

A foot is associated with tone.

*TONE can be thought of as a member of the *STRUCTURE family (Prince & Smolensky 1993, 25; McCarthy 2002, 47) that imposes general bans on marked structure.

(39) *TONE

Tone is not present.

When FTSAL outranks *TONE, which in turn outranks the faithfulness constraint MAX(Tone) (‘Tonal features present in the input are present in the output’), tone is realised on all and only footed syllables. Because minor syllables are unfooted, they are toneless. This is shown in the tableau in (40).

---

14 At least in native words; as mentioned above, the Low tone that appears in English loanwords is perhaps not present in the input.
3.2 Loss of vowel place features

Under the widespread assumption that \(\alpha\) is a placeless vowel, the fact of its occurrence to the exclusion of all other vowels in minor syllables in Burmese can be attributed to \(*\text{PLACE}\)_0. As defined in (19), this constraint bans place features not specifically from the coda position of the syllable but rather from the right edge of the syllable. In open, monomoraic syllables, the nucleus vowel is at the right edge of the syllable and therefore subject to \(*\text{PLACE}\)_0. When a syllable surfaces as a minor syllable, for example in reducing compounds, the vowel is reduced to \(\alpha\) in compliance with \(*\text{PLACE}\)_0 and in violation of lower-ranking \(\text{MAX(PLACE)}\) (20). Major syllables, on the other hand, are bimoraic, so that the Place features associated with the last mora are also associated with the first mora, avoiding a violation of \(*\text{PLACE}\)_0. An example comes from the word \(\text{cl:\{2} \eta\alpha\text{?u 'fish-spawn'}\) (34), as shown in the tableau in (41).

3.3 Loss of coda consonants

It is generally accepted that heavy syllables are more marked than light syllables, so that a constraint banning heavy syllables is predicted. This constraint may be named \(\text{NOHEAVY}\).

\begin{tabular}{|c|c|c|c|}
\hline
\(/\eta\alpha\text{?u}/\) & \(\text{FTSAL}\) & \(*\text{TONE}\) & \(\text{MAX(PLACE)}\) \\
\hline
[\(\eta\alpha(\text{?u})\)]_0 & \(\star\) & \(\star\) & \\
\hline
\end{tabular}

Extending the ban on syllable-final place features so that it applies not only to coda consonants but to vowels as well thus accounts simultaneously for the prohibition on diphthongs in open syllables and the reduction of all vowels to \(\alpha\) in minor syllables.
Provided FTBIN outranks NOHEAVY in Burmese, a syllable may be bimoraic only in order that FTBIN not be violated, as illustrated in (44).

(44)  

<table>
<thead>
<tr>
<th>/kʰá/</th>
<th>FTBIN</th>
<th>NOHEAVY</th>
</tr>
</thead>
<tbody>
<tr>
<td>([kʰá])&lt;sub&gt;₁&lt;/sub&gt;</td>
<td>*!</td>
<td>*</td>
</tr>
<tr>
<td>([kʰá&lt;sub&gt;₂&lt;/sub&gt;]&lt;sub&gt;₃&lt;/sub&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOHEAVY thus predicts that unfooted syllables must be monomoraic, since FTBIN is not an issue. This is the reason why the first syllable in a reducing compound such as teán+po > [təbó] 'bed-bug' (34) or ḡ onSave > [nədəl] ‘two months’ (34) loses its coda consonant; a bimoraic syllable would induce an extra violation of NOHEAVY, and footing the first syllable would violate ALL-FT-R (35). Undominated ALIGN-L(f, ð) and ALIGN-R(f, ð) prevent the two syllables from forming a (LL) foot. The ranking ALIGN-L(f, ð), ALIGN-R(f, ð), FTBIN » ALL-FT-R » PARSE-σ, NOHEAVY » MAX(seg) (45) is shown in the tableau in (46). The dashed lines in the tableau indicate that the ranking of two constraints with respect to each other cannot be determined. Crucially NOHEAVY dominates MAX(seg).

(45)  

MAX (seg)  
A segment in the input has a correspondent in the output. (No deletion).

(46)  

<table>
<thead>
<tr>
<th>/teán+po/</th>
<th>ALIGN-L (f, ð)</th>
<th>ALIGN-R (f, ð)</th>
<th>FTBIN</th>
<th>ALL-FT-R</th>
<th>PARSE-σ</th>
<th>NOHEAVY</th>
<th>MAX (seg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[təbó]&lt;sub&gt;₁&lt;/sub&gt;</td>
<td>*!</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[təbó&lt;sub&gt;₂&lt;/sub&gt;]&lt;sub&gt;₃&lt;/sub&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[teán(bó)&lt;sub&gt;₁&lt;/sub&gt;]&lt;sub&gt;₃&lt;/sub&gt;</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>[teán(bó&lt;sub&gt;₂&lt;/sub&gt;]&lt;sub&gt;₃&lt;/sub&gt;</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[teán(bó&lt;sub&gt;₃&lt;/sub&gt;)&lt;sub&gt;₃&lt;/sub&gt;</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>[teán(bó&lt;sub&gt;₄&lt;/sub&gt;]&lt;sub&gt;₃&lt;/sub&gt;</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

ALIGN-L(f, ð), ALIGN-R(f, ð), and FTBIN are all unviolated in Burmese: there are no circumstances under which either a (LL) foot or a (L) foot is permissible.

3.4 Onset simplification

Major syllables allow onset clusters in Burmese while minor syllables do not. If a major syllable with a complex onset becomes minor in a reducing compound, the second consonant of the onset is lost, as shown in (47) (Okell 1969:15).
Onset cluster simplification in reducing compounds

a.  nwá + ng > nang  ‘cow’ + ‘udder’ > ‘milk’
b.  ðwá + jè > ðajè  ‘tooth’ + ‘juice’ > ‘saliva’

To account for this fact I suggest that onset clusters are permitted only in foot-initial position in Burmese, and that the first consonant of such clusters is linked directly to the foot. Following arguments formalised in Green (2003), I propose that a universally ranked subhierarchy on onset clusters includes a string \( *_o[CC] \rightarrow *_j[CC] \), i.e. a cluster at the left edge of a syllable is universally more marked than a cluster at the left edge of a foot.\(^{15}\) In Burmese, this ranking is interrupted by MAX(seg), i.e. \( *_o[CC] \rightarrow \text{MAX(seg)} \rightarrow *_j[CC] \), allowing cluster simplification at the syllable level but not the foot level. Also low ranked is EXHAUSTIVITY\(_j\) (Selkirk 1995, 443), which militates against domination by feet of anything other than syllables. The ranking is exemplified in the tableaux in (51) and (52).

\( *_o[CC] \)
A sequence of two consonants is forbidden in syllable-initial position.

\( *_j[CC] \)
A sequence of two consonants is forbidden in foot-initial position.

EXH\(_j\)
A foot immediately dominates only syllables.

<table>
<thead>
<tr>
<th>nwáng</th>
<th>( *_o[CC] )</th>
<th>MAX(seg)</th>
<th>EXH(_j)</th>
<th>( *_j[CC] )</th>
</tr>
</thead>
<tbody>
<tr>
<td>.nwá.(ng.)</td>
<td>( * )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \theta ).na.(ng.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the tableau in (52), the consonant in italics is extrasyllabic, being linked directly to the foot.

<table>
<thead>
<tr>
<th>nwá</th>
<th>( *_o[CC] )</th>
<th>MAX(seg)</th>
<th>EXH(_j)</th>
<th>( *_j[CC] )</th>
</tr>
</thead>
<tbody>
<tr>
<td>.nwá</td>
<td>( * )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.ná</td>
<td>( * )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \theta ).n.wá</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To account for this fact I suggest that onset clusters are permitted only in foot-initial position in Burmese, and that the first consonant of such clusters is linked directly to the foot. Following arguments formalised in Green (2003), I propose that a universally ranked subhierarchy on onset clusters includes a string \( *_o[CC] \rightarrow *_j[CC] \), i.e. a cluster at the left edge of a syllable is universally more marked than a cluster at the left edge of a foot.\(^{15}\) In Burmese, this ranking is interrupted by MAX(seg), i.e. \( *_o[CC] \rightarrow \text{MAX(seg)} \rightarrow *_j[CC] \), allowing cluster simplification at the syllable level but not the foot level. Also low ranked is EXHAUSTIVITY\(_j\) (Selkirk 1995, 443), which militates against domination by feet of anything other than syllables. The ranking is exemplified in the tableaux in (51) and (52).

\(^{15}\) See Beckman (1998:238ff.) for a different analysis of complex syllable margins in prominent positions.
features are banned from the right edges of syllables. And complex onsets are simplified, because only feet tolerate complex onsets.

3.5 Distribution of minor syllables

Next, let us examine the constraint interactions that prohibit a from occurring word-finally. The constraint HEADEDPLACE (53) is similar in effect to Cohn and McCarthy's (1998) constraint NON-HEAD(a), which prohibits stressed a. It requires the head mora of a foot to dominate place features, and ALIGN-R(ω, f) (32) requires every pword to be right-aligned with a foot. Both constraints are undominated and surface-true in Burmese. So what happens if an input ends in /a/? Native words probably never have such inputs, as speakers would have no reason to posit them, but evidence from English loanwords shows us the strategy: word-final a of English is realised as a in Burmese, as in ကြိုး ကြိုး kômâ ‘comma’. The faithfulness constraint violated here, assuming the input /(kɔ)mə/\(^\text{16}\), is DEP(Place) (54).\(^\text{17}\)

\[\begin{array}{|c|c|c|}
\hline
/freeze \text{ma}/ & \text{HEADEDPLACE} & \text{ALIGN-R(ω, f)} & \text{DEP(PLACE)} \\
\hline
((kɔ)(må))_ω & \ast & \ast & \ast \\
((kɔ)må)_ω & \ast & \ast & \ast \\
\text{\_}[((kɔ)(må))]_ω & \ast & \ast & \ast \\
\hline
\end{array}\]

4 Polypodc words

One salient property of Burmese prosodic phonology is that there is a strong preference for nonbranching prosodic categories. We have seen that every prosodic category preferably contains exactly one of the next lower category. Syllables are monomoraic because of NOHEAVY, prohibiting bimoraic syllables, unless higher-ranking FTBIN forces a syllable to be bimoraic (cf.(46)). All feet are monosyllabic in Burmese, because ALIGN-L(f, ¨) and ALIGN-R(f, ¨) are undominated. And most pwords contain exactly one foot, because of high-ranking ALL-FT-R (cf. (46)). Such words are called ‘monopodic’, and examples of them are shown in (56):

\(^\text{16}\) The reason for the foot structure in the input will become clear in §4.2.

\(^\text{17}\) I do not have space here to explore the question why the features of a rather than some other vowel are the ones supplied.
Monopodic words in Burmese

a. ဝါ ([(θwá)]ω) ‘go’
b. ထာ ([(lē)]ω) ‘be heavy’
c. ရေ ([(sà)]ω) ‘writing’
d. ကြီး ([(ʔēn)]ω) ‘house’
e. မိုးပါ ([(θjò)]ω) ‘mock, satirise’
f. ကြည် (kθə(lou?)]ω) ‘knob’
g. ကြည်း ([(θmà(jè)]ω) ‘rice-water’

Nevertheless, there are some words in Burmese that contain more than one foot (‘polypodic words’). These are chiefly compounds (57) or loanwords (57). A very few noncompound polypodic words do not appear to be loanwords (57). I shall refer to noncompound polypodic words, such as (57), as ‘superlong’ words.

Polypodic words in Burmese

a. ကြည်း (nè)(tʰäîn) = (nè) + (tʰäîn) ‘reside’ = ‘stay’ + ‘sit’
b. ကြည်း (teb'ð)kə(le?) ‘chocolate’ (English)
c. ကြည်း (mòun)(dàiN) ‘storm’

In this section I shall argue that polypodic words are pre-specified for some prosodic structure: compounds like (57) contain word structure in the input, and superlong words like (57) — contain foot structure in the input.

4.1 Nonreducing compounds

In section 3 above we saw a type of compounding called reducing compounding. Burmese also has nonreducing compounding, in which the elements of the compound undergo no phonological changes. Nonreducing compounds are thus quite straightforward: two or more words are strung together to form a single word. The individual members of these compounds probably retain their original words, which are then parsed recursively into a single, larger word, as shown in (58). (See Inkelas (1989) and McCarthy & Prince (1993b) on the recursiveness of the word.) Examination of the glosses in the examples (especially (58)e, f) reveals that many ‘compounds’ in Burmese are not compounds in the traditional sense at all, but rather ‘concatenation[s] of lexical words and grammatical formatives, presumably under a single X-bar category (X°)’ (Bennett & Lehman 1994).

Nonreducing compounds: ω + ω > [ω ω]ω

a. ကြည်း + ကြည်း > ကြည်း

[[(nè)]ω + [tʰän]ω]ω > [(nè) [tʰän]ω]ω

‘stay’ + ‘sit’ > ‘reside’

It is not unusual for a language to have more than one type of compound. Mohanan (1982, 1986), Aronoff and Sridhar (1983), Sproat (1986), and Inkelas (1989) discuss compounds in Kannada and Malayalam, where ‘subcompounds’ and ‘co-compounds’ have different phonological effects from each other. Unlike Kannada and Malayalam, Burmese does not seem to have an obvious semantic distinction between the two types of compounds.
b. \text{ādus}: + \text{āri} > \text{ādusārī}
\[\text{[jāun]}_w + \text{[wē]}_w > [\text{jāun}_w \text{[wē]}_w]_w\]
'sell' + 'buy' > 'trade'

c. \text{āpō} + \text{āŚ} > \text{āpōāŚ}
\[\text{[teč?]_w} + \text{[śǐn]}_w > [\text{[teč?]}_w \text{[śǐn]}_w]_w\]
'fowl' + 'elephant' > 'turkey'

d. \text{ārū} + \text{ālu} > \text{ārūālu}
\[\text{[ʔajē]}_w + \text{[ʔatehǐn]}_w > [\text{[ʔajē]}_w \text{[ʔatehǐn]}_w]_w\]
'characteristic' + 'quality' > 'qualification'

e. \text{ām} + \text{āp} > \text{āmāp}
\[\text{[pō]}_w + \text{[pē]}_w + \text{[ǩāín]}_w > [\text{[pō]}_w \text{[pē]}_w \text{[ǩāín]}_w]_w\]
'send' + 'to' + 'tell' > 'tell him to send it'

f. \text{ān} + \text{āl} + \text{āk} > \text{ānālāk}
\[\text{[teč]}_w + \text{[lō]}_w + \text{[ǩāun]}_w > [\text{[teč]}_w \text{[lō]}_w \text{[ǩāun]}_w]_w\]
'look' + 'ing' + 'be good' > 'be good to look at'

g. \text{āšā} + \text{āa} + \text{āk} > \text{āšāāaāk}
\[\text{[kau̞]}_w + \text{[pē]}_w + \text{[ʔəb̌i]}_w + \text{[ʔaŋǐ]}_w > [\text{[kau̞]}_w \text{[pē]}_w \text{[ʔəb̌i]}_w \text{[ʔaŋǐ]}_w]_w\]
'paddy' + 'peas' + 'fruit' + 'grain' > 'crops'

h. \text{ātō} + \text{āc} + \text{āk} + \text{ānā} > \text{ātōācākānā}
\[\text{[ʔō]}_w + \text{[ʔiN]}_w + \text{[ǩweʔ]}_w + \text{[jau̞]}_w > [\text{[ʔō]}_w \text{[ʔiN]}_w \text{[ǩweʔ]}_w \text{[jau̞]}_w]_w\]
'pot' + 'bowl' + 'cup' + 'ladle' > 'household goods'

I am not concerned here with certain effects of compounding, such as voicing, as seen in (58), or the loss of the prefix \text{[ʔa-]} in some forms like (58), but not in others like (58).

Compound words consisting of more than one pword are well attested: in Igbo (Zsiga 1992), Malayalam (Sproat 1986; Inkelas 1989), Sanskrit (Selkirk 1980a), and Turkish and Hungarian (Nespor & Vogel 1986), for example, certain compounds contain more than one pword. Also in the history of Welsh, as described by Jackson (1953:367, 436, 514, 579), external sandhi processes are found between the members of a compound, and are distinct from internal sandhi processes found within a simple pword. This implies that the members of the compound are separate pwords in that language as well.

Whether a Burmese compound will be of the reducing or nonreducing type cannot be determined phonologically. There is no phonological reason why \text{ātōācākānā} 'reside' (58) must be \text{[nēthāin]}_w, not \text{*[nathāin]}_w, nor why (34) \text{ātōācākānā} 'bed-bug' must be \text{[təb̌o]}_w, not \text{*[tən̤b̌o]}. Indeed, there seems to be dialectal variation on this point. Okell (1969:15) reports \text{ātōācākānā} 'toddle juice' to be pronounced as reduced \text{[ťəjaŋ]}_w in Upper Burma but as non-reduced \text{[ťan̤jaŋ]}_w in Lower Burma. Instead, the decision between reducing and non-reducing compounds must be made already in the lexicon, for example by prespecifying pwords in non-reducing compounds. Under this analysis, a non-reducing compound like \text{ātōācākānā} \text{[nēthāin]}_w is lexically specified as containing two pwords, thus \text{[nē]}_w + \text{[thāin]}_w, while
reducing compounds like /tən+ pó/. And the word for ‘toddy juice’ is lexically represented as /thán+ jè/ in Upper Burmese dialects and /[tʰán] + [jè] o/ in Lower Burmese dialects.

Two constraints relevant for this analysis are MAX(ω) (59) and NONREC o (60).

(59) MAX(ω)

A pword in the input has a correspondent in the output.

(60) NONREC o (Selkirk 1995:443)

No pword dominates a pword.

In Burmese, MAX(ω) dominates NONREC o, which means that a pword may be recursive only in order to avoid deleting a prespecified pword. The result is that reducing compounds have no recursivity in the output, while nonreducing compounds do have recursivity, as shown in the tableaux in (61)–(62).

(61)

<table>
<thead>
<tr>
<th>/tən+ pó/</th>
<th>MAX(ω)</th>
<th>NONREC o</th>
</tr>
</thead>
<tbody>
<tr>
<td>[[tən] o [bó] o]</td>
<td>* !</td>
<td></td>
</tr>
<tr>
<td><em>/təbó</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(62)

<table>
<thead>
<tr>
<th>/[nè] + [tʰain] o/</th>
<th>MAX(ω)</th>
<th>NONREC o</th>
</tr>
</thead>
<tbody>
<tr>
<td>*/nè [tʰain] o/</td>
<td></td>
<td>* !</td>
</tr>
<tr>
<td>*/nə[tʰain] o/</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As for dialectal variation between Upper Burmese and Lower Burmese dialects, this is probably due to different lexical specifications in the different dialects rather than to different constraint ranking. Okell (1969:15) says that ‘weakening [i.e. reduction in compounding] is said to be more common in Upper than in Lower Burma’ and gives the example of ñō sajè ~ tʰánjè ‘toddy juice’ as an illustration; but to argue that Upper Burmese has the ranking NONREC o » MAX(ω) would be to predict that Upper Burmese never has nonreduced compounds, which is not the case (F.K.L. Chit Haing, pers. comm.).

Burmese freely tolerates compounds with both reducing and nonreducing elements, as shown in (63).

(63) Compounds with both reducing and nonreducing elements

| a. ñō ?  pəlá | lu?palá | ‘free’ + PERF + Q-? |
| b. ñō ?  pəlá | nèmalá | ‘stay’ + IRR + Q-? |
| c. ñō ?  pəlá | méinma? wu? | ‘woman’ + ‘clothing’ |
| d. ñō ?  pəlá | lānmado | ‘road’ + ‘main’ + HON |
In these cases, the inputs presumably contain prespecified pword structure only where there is no reduction, thus /[lu?]_w + pi + [lā]_w/, /[pjā] + [tīn]_w + [pau?]_w/, etc.

4.2 Noncompound polypodic words

In addition to compounds, Burmese has a few superlong words, by which I mean morphologically simplex (i.e. not compound) polypodic words. Most but not all of them are loanwords. Some examples are shown in (64).

(64) Superlong words in Burmese

a. Ṭaaun(Taa) 'be anxious'
b. Moun(dain) 'storm'
c. Thap(na) 'enshrine' < Pāli ṭhapanā
d. Bou? (da) 'Buddha' < Pāli Buddha
e. Maa (tā(kā)θa) 'space, universe' < Pāli ākāsa
f. Maa (tā(rī)jei?) 'appreciate' < English
g. Tēcita (tēc(ia?) 'chocolate' < English
h. Maa (jīn) 'engine' < English

Just as nonreducing compounds are analyzed as having prespecified pwords, these superlong words can be analyzed as having prespecified feet: the input of [thapana], for example, is [thapana]L. In order to prevent syllable reduction from applying, we need to assume that a faithfulness constraint MAX(f) outranks ALL-FT-R, as illustrated in (66).

(65) MAX(f)

A foot in the input has a correspondent in the output.

(66)

<table>
<thead>
<tr>
<th>/thapana/</th>
<th>MAX(f)</th>
<th>ALL-FT-R</th>
<th>MAX(PLACE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[thap(na)]_w</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>[(thā)pa(na)]_w</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Polypodic words are exceptional in Burmese, and arise only when some prosodic structure (pword, foot) is prespecified in the input. Where no prosodic structure is prespecified, Burmese constraint ranking ensures that pwords are monopodic, in accordance with the more general tendency toward nonbranching prosodic categories in this language.

5 Conclusions

In this chapter I have discussed several aspects of the prosodic structure of Burmese and have addressed several problems. Both the ban on diphthongs in open syllables and the fact that placeless a is the only vowel allowed in light open syllables are explained by analyzing Burmese as prohibiting both vocalic and consonantal place features from the
right edge of a syllable. The various effects seen in syllable reduction (loss of tone, reduction of all vowels to a, loss of coda consonants, and onset simplification) are all attributable to the fact that a major syllable is a foot while a minor syllable is unfooted. Finally, both pwords and feet can be prespecified in the input, accounting for the contrast between monopodic words (including reducing compounds) and polypodic words (including nonreducing compounds).
2 Focus in Burmese: an investigation and experimental study of information structure and prosody

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1 Introduction

This chapter considers the interaction of information structure, focus and prosody in Burmese. For many years research has been carried out on the potential impact of focus structures on word order, and recently an increasing number of works has begun to investigate the possible linking of focus with prosody and intonation. Primarily initiated in studies of Romance and Germanic languages (e.g. Cinque 1993, Ladd 1996, Zubizarreta 1998 among many others), this latter work is now growing in its coverage of other, non-European languages, and in the area of eastern Asia there have been recent, interesting investigations of prosodic effects on word order in Japanese and also Korean, in Ishihara (2002), Deguchi and Kitagawa (2002) and Jun (1996). Such work has complemented a growing body of research into the effects of focus in so-called ‘free-word order’ languages, where it is observed that a wide range of word order possibilities seem to be available within a single language. For example, in descriptions of languages having a neutral SOV-type word order such as Japanese, Korean, Turkish and Hindi, it is common to find it noted that a di-transitive clause may actually allow for a whole range of word order permutations as schematised in (1). Where the verb-final property of such languages may be less strictly imposed, as, for example, in Hindi, it may also be possible for other combinations to occur, and for arguments of the verb to be optionally positioned following the verb.

(1) Common word order permutations in ‘SOV’ ‘free word order’ languages
‘John gave a book to Mary’
Sub = subject, DO = direct object, IO = indirect object

We are grateful to all the Burmese consultants who have provided the syntactic and perceptual judgements, translations and recordings on which this study is based, in particular Pyu Cyn, Khin Mar Kyi and MT. Many thanks are also due to John Okell for many hours commenting on the data presented to informants and for valuable intuitions about the results obtained from native speakers. Thanks also to Bernard Howard for invaluable assistance in making the recordings.
The primary goal of most investigations of this kind of free word order has generally been to attempt to discover whether such word order really is free and random, or whether it is actually governed and even predicted by the interaction of syntactic, semantic and pragmatic factors, and possibly also prosody. In order to account for the complex patterns attested, a wide range of different theoretical approaches have been proposed in both formal and functionalist frameworks, with particularly significant work carried out by Lambrecht (1994), Vallduvi (1992), Givón (1990), Choi (1999), and Neeleman and Reinhart (1998) to name just a few. However, in spite of the increased and large amount of work carried out on the information-structure and prosodic factors potentially governing word order, there are still many central issues that are not well-resolved, and there are clear disagreements as to how to best capture the patterns observed. In addition to this, it is also not uncommon to find important disagreements about the basic 'facts' which obtain in certain of the languages studied, e.g. German, Korean, Japanese. There is consequently a pressing need for more careful studies on such matters to be carried out, and for information from a wider array of languages to be brought to bear on the general issues of word order variation and its relation to information structure and prosody. The aim of the current chapter is therefore to see how a study of Burmese may be able to contribute to this ongoing debate, and to examine what factors may seem to be responsible for the appearance/occurrence of 'free word order' patterns within the language. Burmese being typologically similar to Japanese, Korean, Hindi and Turkish in many relevant ways, it is hoped that a careful examination of word order permutation in Burmese will not only serve towards a better understanding of Burmese itself, but also be of value in more general cross-linguistic comparative research into word order variation within SOV languages.

The structure of the chapter is now as follows. Section 2 first provides a general background introduction to the notion of focus and various other factors often taken to have effects on word order in different languages. Section 3 then turns to Burmese and discusses at some length a wide range of word order patterns investigated in the language, together with information on how and why such patterns were investigated and the conclusions which seem to be indicated by the data. Following this examination of the influence of primarily discourse-related, pragmatic factors on word order patterns, section 4 presents the second major part of the present study, which was an investigation of the prosodic properties of word order variation and the occurrence of stress patterns in focus-related sentences. Section 5 then concludes the study with a summary of observations on the interaction of prosody with information structure and the limits of variation which seem to be attested in word order variation in Burmese.
2 Factors governing word order variation: a brief overview

Before proceeding into the investigation of Burmese proper, it will be useful to note and clarify certain commonly assumed notions and ideas relating to the study of focus and word order variation.

One common approach to modeling patterns such as those abstractly schematised in (1) is to argue that the different possible word orders which occur in a language result from the interaction of various different constraints relating to syntax and pragmatics (and sometimes also prosodic weight). Such an approach is highly formalised in work carried out within Optimality Theory, as e.g. in Choi (1999), and is also present in spirit in a range of earlier works such as Bresnan and Kanerva (1989), Givón (1990), Herring (1990). The central idea in many of these works is that (a) all discourse referents/Noun Phrases/NPs are associated with a number of properties (case, grammatical function, semantic role, degree of animacy etc), (b) each individual property system dictates its own optimal ordering of the elements which are specified with properties of that system, and (c) sometimes the particular clustering of properties within NPs in a sentence may give rise to competition and conflict between the different property systems, with different languages potentially resolving these conflicts in different ways.

A number of these property systems and their assumed effects on word order can be noted here as relevant illustration. First of all, it is widely assumed that information which is referentially old or ‘given’, such as the topic of a sentence, is commonly positioned before information that is new, resulting in the linear ordering of elements with old/new referential properties as in (2):

(2) Old/new information status
    
    given/old > new

Secondly, there is evidence to indicate that the ordering of NPs in a sentence may be regulated by the different grammatical roles they bear, hence cross-linguistically it has been observed to be very common for subjects to precede objects in neutral word order patterns, and elements with other grammatical roles are quite possibly also positioned according to a canonical type of order, as in (3):

(3) Grammatical relations

    subject > object > oblique > adjunct

Other hierarchical orderings that have been assumed to cause a linear ordering of elements relate to the semantic roles, case relations and degree of animacy borne by NPs in a sentence, as represented in (4)–(6). In each case, an element on the higher end of the scale is assumed to ‘win out’ over elements lower in the scale, and in many cases cause a parallel linear left-to-right ordering if other factors do not conflict with this:

(4) Thematic hierarchy of NPs

    agent > patient > goal...

(5) Case hierarchy

    nominative > accusative > dative...
Animacy hierarchy
human 1st/2nd person > human 3rd person > animate non-human > inanimate

In an ideal kind of case, an element which is higher than some other element on one hierarchical scale will also be higher than the second element on all other scales, hence be uniformly more prominent than the second element with regard to all relevant properties. For example, it may be found that a subject NP occurs in nominative case, is human and an agent and is also old information, and that an object NP has accusative case, is inanimate, new information and semantically a patient, as in (7). This is assumed to lead to an automatic positioning of the subject NP before the object NP.

(7) ‘John read a book.’

subject > object
nominative > accusative
agent > patient
old > new
human > inanimate

However, there may also be many cases where a conflict arises and the case, animacy and other values for two referents may not follow the same hierarchical ordering in all instances. Such cases are suggested to potentially result in different kinds of word order outputs in different languages, depending on the relative importance a language may give to the hierarchies in (2-6). The present investigation pays particular attention to the status of referents with regard to the new-old distinction in (2) and observes how this plays a clearly important role in the ordering of elements within a sentence in Burmese.

As in many other investigations into word order variation, we also consider the effects that focus has on different types of word order. The term ‘focus’ is commonly used in two significantly different senses. The first of these is to refer to new information introduced into a sentence against a background of presupposed, old information. This kind of focus is often referred to as information focus or completive focus, and can be naturally identified by the use of wh question-answer pairs, the element which supplies a value for a wh-constituent in a question always functioning as a new information focus in the answer, as e.g. in (8):

(8) Q: What did John buy?
A: I think he bought a book.

When a new information focus is instantiated by a single constituent such as an object or a subject (or a verb), this is furthermore referred to as an instance of ‘narrow focus’, as in (8) above. If, however, a new information focus is instantiated by a larger constituent such as a VP or even a full sentence as in (9) and (10), the term ‘broad focus’ is used to indicate that the extent of the focus is larger than cases of simple narrow focus:

(9) Q: What did John do?
A: I think he bought a book.
A second type of focus which is often distinguished, on the grounds that it may have
different effects on word order, is contrastive focus, and involves the focal contrast of one
element with another in the discourse context, as e.g. in (11):

(11) It was John who bought a book, not Mary.

In certain languages (for example Hungarian; Kiss 2002), an NP which has the
interpretation of being in contrastive focus is forced to occur in a special position in the
sentence (pre-verbally in Hungarian), whereas NPs that instantiate new information focus
occur in other kinds of position (post-verbally in Hungarian). In the present study of
Burmese, we consider both how new information focus patterns (narrow and broad) and
the effects of contrastive focus.

Turning now briefly to certain ideas concerning prosody, and how prosodic factors may
relate to focus and information structure, in many languages it has been observed that a
clear sentence-final stress intonation coincides with new information focus occurring in
such a position. This default intonation pattern is referred to as nuclear stress and the
suggestion is made that nuclear stress highlights as new information focus whatever
element occurs finally in a sentence, as for example in (8) where ‘a book’ receives the
nuclear stress intonation. In certain languages such as Italian, it has also been noted that a
new information focus must occur in the sentence-final position where nuclear stress falls,
and that if the use of a neutral word order pattern would cause the new information focus
to occur elsewhere in the sentence, such a neutral word order must be converted into a non­
neutral pattern so that the element instantiating completive focus does occur finally in the
sentence. This is illustrated in (12) below. Although Italian has a neutral SVO word order
like English, if the subject NP is the answer to a wh-question (12)a and instantiates new
information focus, it must be positioned following the verb as in (12)b and a pre-verbal
positioning of the subject as in (12)c is quite inappropriate:

    who has arrived    has arrived Gianni    Gianni has arrived
    ‘Who has arrived?’ ‘Gianni has arrived.’

Generally, it is important to note here that the occurrence of focus in a sentence-final
position is frequently attributed to the prosodic reason that nuclear stress naturally falls in
such a position, and so syntactic structures may need to be built in which a focused
element occurs in the sentence-final stress position.

Note that in verb-final languages such as German, it has been argued that the relevant
sentence-final position where nuclear stress highlights a new information focus is actually
the immediately pre-verbal position, and that the notion ‘sentence-final’ may actually be
thought of as ‘most deeply embedded’ in a syntactic structure (Cinque 1993).

It can also be added that certain languages permit exceptions to the automatic
application of nuclear stress in sentence-final position. In languages such as English,
sentence-final elements which constitute old-given information may be invisible to the
application of nuclear stress to a sentence-final element, allowing this nuclear stress to fall
on a preceding element such as the verb in example (13). This is commonly referred to as
the possibility of de-accenting presupposed material in a sentence, and is a prosodic operation which is available in some but certainly not all languages (Ladd 1996; Cruttenden 2003).

(13) a. I was thinking of giving John a bottle of whisky.
    b. But John doesn’t like whisky.
    c. But John doesn’t like whisky.

Having outlined in brief a few of the relevant concepts and terms that will be referred to regularly in the rest of the chapter, we are now in a position to describe the full investigation of focus and prosody in Burmese which was carried out.

3 Focus-related word order variation

In order to gather information on information structure and prosody in Burmese, it was decided to divide the investigation into two main parts. The first major part of the investigation, described here in section 3, consisted in a comprehensive examination of different types of word order and the interpretations which are possible and natural in such orderings. The second part of the investigation, which built on the findings of the first part, was a controlled production and perception test which set out to examine the use of intonation and stress in focus-related sentences.

As a starting point for the study, certain fairly uncontroversial and commonly-made assumptions about basic word order patterns in Burmese were adopted as background hypotheses, and these subsequently appeared to be borne out by the general patterning of the data. First of all it was assumed that Burmese has an underlying neutral word order which is SOV in transitive sentences, and S-IO-DO-V in di-transitive sentences involving verbs of giving. Apart from being the most frequently occurring neutral pattern, there is evidence from case-marking that SOV order is basic in Burmese. If the object occurs adjacent to the verb, there is no particular pressure for it to be marked with accusative-like objective-case, whereas if it precedes the subject in an OSV order, it is commonly marked with the case-particle -kou. This provides an explicit indication to a hearer that the sentence-initial NP should not be given a default interpretation as a subject and is instead an ‘out of place’ object.

Secondly, given the observation in a number of works that wh-question words occur commonly before the verb in Burmese, we anticipated finding that focused elements in general might regularly appear in pre-verbal position. If this were to be so, it would group Burmese with the considerable number of SOV languages described as having a special pre-verbal focus position, e.g. Turkish, Hindi, Bengali, German. In certain of these languages, such as Hindi and Turkish, there are furthermore claims that a focused element must always come immediately before the verb. One of the goals of the investigation of Burmese was therefore identified as establishing the extent to which Burmese might require its focused elements to occur in immediately pre-verbal position, and also how any pre-verbal focus patterning is syntactically derived.

Because the study was interested in collecting information on both information focus and contrastive focus, the kinds of data examined included both wh-questions and correction sentences. Wh-questions were used as in other studies of focus to determine where the new information corresponding to a wh-question word is normally placed in a long answer form, as e.g. in (8).
While the most frequent type of answer to a wh-question is certainly a short answer form providing simply a value for the questioned element, long answer forms repeating more of the material in an input question are nevertheless quite grammatical and occur frequently in certain registers of speech/certain situations. As they are particularly revealing with regard to the effect of information status on sentence structuring, they are the type of answer-form that was predominantly examined here, as indeed in other studies of focus and information structure.

As Burmese is a language which does not automatically position its wh-question words sentence-/clause-initially in questions, unlike languages such as English and German (i.e. Burmese seems descriptively be a wh in situ language), the study also examined the positioning of wh-question words (as foci) relative to other elements in the sentence. Correction sentences such as the second part of speaker B’s reply in (14) were used to examine where an element most naturally occurs if it is understood to be a focal centre in strong contrast with some other element, i.e. the patterning of contrastive focus:

(14) A: John likes Sue, I hear.
    B: No, you’re wrong. Bill likes Sue, (not John).
   contrastive focus: Bill

(15) Sentence types/data considered in the study
(a) wh-questions and their answers
   • used to examine new information focus by:
     (i) the positioning of the answers to wh-questions
     (ii) the positioning of wh-question words themselves
(b) corrections
   • used to examine the positioning of contrastive focus

In terms of actual sentence structures, the study examined simple transitive sentences composed of a subject, object and verb in both SOV and OSV patterns, di-transitive double object constructions with an indirect object present in various combinations with the subject and the direct object, and also sentences with ‘circumstantial’ adverbs expressing the time and/or place of an event (e.g. ‘yesterday’, ‘in the market’ etc), which tend to occur most neutrally either before or after the subject of the sentence, as summarised in (16):

(16) Basic sentence patterns used
(a) simple transitive sentences:  (i)  S O V
    (ii) O S V
(b) di-transitive ‘double object constructions’:
    (i)  Sub IO DO V
    (ii) Sub DO IO V  etc
(c) sentences with ‘circumstantial’ adverbs:
    (i)  Sub Adv Ob V
    (ii) Sub Ob Adv V  etc
Concerning the various language informants consulted in the study, during the first part of the investigation where informants were quizzed about their intuitions on the grammaticality and naturalness of different focus-related sentences (as well as being asked to translate various focus sentences), the informants were all native speakers of Burmese with a particular sensitivity to language — either teachers of Burmese, or journalists who regularly wrote news reports and carried out radio broadcasts in Burmese. These informants also had a high level of proficiency in English. In the second part of the investigation which focused on the acoustic production and perception experiments, native speakers were consulted who did not necessarily have any ability in English or a profession related to the production/teaching of Burmese language. With regard to the actual collection of information and testing of data for the first part of the study, this was carried out in two main ways. Most commonly, informants were presented with a variety of constructed data and asked to indicate which forms were grammatical, appropriate in the specified context, and most preferred in the specified context. Certain informants were also asked to translate sentences from English into Burmese, as a means to further establish preferred, natural equivalents to focus structures in English. In the investigation of the positioning of new information focus in Burmese, informants were also often given an initial input in the form of a wh-question in English, and asked to respond with a long-answer form in Burmese. Here the use of English had a clear potential advantage over using questions in Burmese to elicit new information focus, as it disallowed the possibility of informants directly (and blindly) copying the physical shape of an input question in Burmese directly into their response form. The use of English in eliciting data and judgements in certain contexts and tests however also required careful attention. Given the fact that Burmese does not have definite and indefinite articles, particular care was necessary to ensure that informants interpreted NPs in English input data in the intended way as being either given/old information when preceded by the definite determiner, or new information when preceded by the indefinite article.

(17) **Information collection procedures**

(a) Judgements on constructed data: informants were presented with a range of possible Forms for focus/wh-question sentences and asked to indicate which were considered (i) grammatical, (ii) appropriate in the particular context, (iii) most preferred

(b) Judgements on available interpretations: informants were quizzed about the interpretations they felt were available in various different word orders.

(c) Translation: informants were asked to translate English sentences into their most natural Burmese equivalents, establishing informants’ first natural preference.

In the construction of data to be tested with informants, a number of further variables were manipulated. The first of these was the in/definiteness of the NP referents and given/new distinctions. This was done in various ways: (i) by presenting the NP in the test-target sentence also in a preceding sentence to ensure that it was interpreted as definite/familiar/old information, (ii) by explicit instruction to informants that certain determinerless NPs in Burmese data should be interpreted as new in the discourse and indefinite/variably unidentified, and (iii) in instances where explicit disambiguation of
information was deliberately not provided, informants were asked about their interpretations of NPs and whether these could be naturally construed as familiar/old information, or whether they were interpreted as new, indefinite/previoulsy unidentified information. As anticipated, the in/definiteness value of NPs turned out to be an important factor influencing their placement in the sentence. However it also became necessary to distinguish between different kinds of interpretation with indefinite NPs, namely the specific vs. non-specific interpretation open to indefinite NPs, and generic/type vs. token interpretations.

A second variable controlled for was the relative animacy of NP referents, specified by the values of two parameters: ± human and ± animate. Such animacy values also seemed to have a potential influence on the placement of NPs in a sentence, but one which is considerably less important than other factors relating to information structure. Finally, a third potentially influential factor that was payed attention to in constructing data to be tested was the prosodic weight/length of NP referents. In experimental data it was found that the prosodic weight of NPs did not seem to have obvious strong effects on the placement of NPs, despite the fact that other languages may show regular repositioning of lengthy NPs in certain configurations (e.g. Heavy NP Shift in English). This is not to claim that prosodic weight effects are fully absent from Burmese. In newspaper-style reporting it is common for long clausal objects to be positioned before a short NP subject, resulting in a non-canonical OSV word order. However, in the regular spoken style of Burmese investigated here, the length of NPs did not seem to have much effect on their positioning, and other factors relating to in/definiteness and specificity seemed to be significantly more important.

During the course of the investigation, for each sentence type and pattern in (15) and (16), and for each information collection procedure type in (17), the variables noted immediately above were manipulated for each grammatical role. Results from investigation of the different sentence types in (15) and (16) and manipulation of the variables were then cross-checked and compared to ensure consistency of judgements across construction types and informants. Where any discrepancies were discovered, relevant data and patterns were checked again. Careful comparison and consideration of the body of data which had been generated then led to the generalisations reported in sections 3.1–3.5 below.

3.1 Object focus in transitive sentences
The study began by looking at sequences in which the object of the sentence was in focus. What was consistently found here was that focused objects and objects which were wh-question words were placed in the pre-verbal position (which also corresponds to the assumed base position of an object in neutral SOV word order in Burmese). Sentences (18)–(25) show a range of typical patterns and data, subdivided according to whether the object was the reply to a wh-question (new information focus), a contrastive focus in a correction sentence, or a wh-question word itself.

- Objects as new information focus: replies to wh-questions
- Generalisation: the object occurs in the pre-verbal position/its base-position, whether the object is indefinite or definite: S O V
(18) Input question: ‘What did John buy?’
Response: 
John DVD.OBJ buy.REAL.nom.
‘John bought a DVD.’

(19) Input question: Who does Mary like?
Response: 
Mary John.OBJ love.REAL.
‘Mary loves John.’

- Objects as contrastive foci in correction sentences.
- Generalisation: the object again occurs in the pre-verbal position, whether the object is indefinite or definite: S O V

(20) 
John.SUBJ DVD buy.REAL.nom., VCR NEG.be.NEG
‘John bought a DVD, not a VCR.’

(21) 
Mary.SUBJ Bill.OBJ love.REAL.nom., John NEG.be.NEG
‘Mary loves Bill, not John.’

- Objects as wh-question words
- Generalisation: the object occurs in the pre-verbal position: S O V

(22) 
Mary what buy.REAL.Q-WH
‘What did Mary buy?’

These patterns were confirmed by asking informants whether it would be possible to position the object in sentences such as the above before the subject. Informants consistently indicated that this was not possible, whether the object was definite or indefinite:

(23) cf (20) ?? DVD.OBJ divide.go we.de, visi?à ma.hou?,p'hu

(24) cf (21) ?? bill.ko méri.go tehi?,tè we.de, visi?à ma.hou?,p'hu
3.2 Subject focus in transitive sentences

Having examined the positioning of focused objects in transitive sentences involving simply a subject, object and a verb, the study then considered where the subject is positioned in similar transitive sentences when it is in focus as a new information focus, a contrastive focus, and as a wh-phrase. The common finding was that focused subjects are, like focused objects, regularly and most naturally positioned before the verb, resulting in an OSV order. Note that the data in this section observes the patterning when the object NP is definite. The combination of subject focus with an object that is indefinite is described in section 3.3.

- Subjects as new information focus: replies to WH-questions (26)
- Generalisation: the subject-focus commonly occurs in the pre-verbal position, following the object, when the object is definite: O S V:

(26) Input question: Who helped you?
Response: ठासीहुए  आफेल  भक्ति  आफेल
tæn.go  dën  kùn.dà.bar
I.OBJ  John.SUBJ  help.REAL.\textit{NOM}.\textit{POL}
‘John helped me.’

- Subjects as contrastive foci: in correction sentences (27)
- Generalisation: the subject again occurs in the pre-verbal position, following a definite object: O S V:

(27) ठासीहुए  आफेल  भक्ति  आफेल
di,sâ?ou?,kò  dën.ga  jù.là.dà,  mëri.gà  ma.hou?,phù
this.book.OBJ  John.SUBJ  bring.come.REAL.\textit{NOM},  Mary.SUBJ  NEG.be.NEG.
‘John brought this book, not Mary.’

- Subjects as wh-question words (28)
- Generalisation: the subject occurs in the pre-verbal position, following a definite object: O S V:

(28) ठासीहुए  आफेल  भक्ति  आफेल
di,sâ?ou?,kò  bëdù.gà  jù.là.dà,  ʃɔ  ʃɔ  ʃɔ
this.book.OBJ  who.SUBJ  bring.come.REAL.\textit{Q-WH}
‘Who brought this book?’
The data in (18)–(28) therefore all indicate that the focus of a sentence is commonly placed in pre-verbal position. Such a generalisation applies to both new information focus and contrastive focus.

3.3 Indefinite objects in subject focus sentences

The study also investigated the distribution of indefinite objects in subject focus sentences. Although it is more common for objects to be definite/old information in subject-focus sentences, comprising part of the background, presupposed information, there are certain contexts in which a subject focus sentence can naturally contain an object which is indefinite. The testing of a variety of such sentences/contexts led to results which were partly different from those where the object is definite. What was observed was that certain indefinite objects were placed in a position preceding the subject (as in subject focus sentences where the object is definite), but others were positioned in a position following the subject, resulting in an SOV order which reflects the neutral/assumed underlying order of elements in Burmese. Concerning the first, OSV ordering, this was found to occur in two sets of conditions. The first of these was where an NP functioning as an indefinite object in a subject focus sentence had been explicitly referred to in some way as a type, or generic member of a group. For example, (30) below was a translation task, and informants were asked to translate the English sentence: ‘Who picked a history book?’.

As a background to the target sentence, informants were given a particular context which involved schoolchildren picking prizes after answering questions in a classroom quiz, and the prizes available were history books, novels, and writing pads. This pre-mention of ‘history books’ as a type then resulted in informants commonly producing an OSV order, as indicated in (29) below:

- Subject (wh) focus sentence, indefinite (but pre-mentioned) generic/type object
- Generalisation: OSV order

(29) Context given: children in a school are picking prizes from three types of objects: history books, novels, writing pads.

who choose.REAL.Q-WH

‘Who picked a history book?’ → O SV

The second condition which resulted in the production of an OSV order was where the context given to informants led them to interpret the object as a specific indefinite NP (i.e. as an NP whose identity is known to either the speaker or some other discourse referent, but not the hearer). For example, informants were asked to imagine that they were watching a film of a crime scene investigation in which police agents were searching an apartment for a letter they believed must have been written and also must have been hidden in the apartment. With such a background context, informants were asked to translate the target sentence: ‘Which policeman is looking for a letter to the general?’, and this regularly resulted in an OSV order with the specific indefinite NP object positioned before the questioned/focal subject, as in (30).
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- Subject (wh) focus sentence, specific indefinite object
- Generalisation: OSV order
- Context: the investigation of a murder scene at which several policemen are carrying out various tasks.

(30)

Which policeman is searching for a letter to the general? → OSV

When the above two conditions did not hold and indefinite objects were not pre-mentioned or inferable as specific, however, it was found that an OSV order resulted, and non-specific indefinite objects were positioned following the focused/wh subject, as in (31).

- Subject (wh) focus sentence, non-specific indefinite object
- Generalisation: SOV order
- Context: a picture presented to informants with various people engaged in different activities. Task: translate the sentence: ‘Who is reading a book?’

(31)

Who is reading a book?

Data such as (31) therefore indicate that a wh-question word does not have to occur immediately before the verb, but can be separated from the verb by a non-specific indefinite object NP. Such examples may however also allow for the analysis that the object is incorporated into the verb and so forms a complex verbal predicate. If such an analysis could be maintained, one might not need to conclude that wh elements may be separated from the verb by other syntactic arguments.

Note that in addition to sentences with wh subjects, similar patterns were found to occur in sentences where the subject occurred as a new information focus and as a contrastive focus, i.e. an OSV order was found with non-specific indefinite objects, and an OSV order with specific or pre-mentioned generic object NPs.

3.4 Focus patterns in double object/di-transitive constructions

The positioning of focused elements was also investigated in sentences with both a direct object NP and an indirect object NP introduced by a di-transitive verb such as pé ‘give’. When the focused element was the direct object of the verb, it was found that this occurs immediately preceding the verb, as shown in (32)(33) and (35), where the object is respectively a wh-phrase, a new information focus, and a contrastive focus. Examples (34) and (36) illustrate that it is not possible/is highly unnatural to place the direct object in a position preceding the indirect object when the direct object is interpreted as being in focus.

- Direct objects as foci in double object/di-transitive sentences
- Generalisation: S IO DO V order, and not: */? S DO IO V
Data where the indirect object is in focus was then tested. Interestingly, it was found here that two different orders were commonly indicated as being available. First of all, if the direct object is definite/old information, it is possible for an S DO 10 V order to occur, as shown in (37)–(39) where the indirect object occurs as a wh-phrase, a new information focus, and as a contrastive focus.

- Indirect objects as foci in double object/di-transitive sentences
- Possibility I, if the direct object is definite: S DO IO V

(37) ฉัน ข้อความ ชื่อ ผู้ได้รับ ฉัน ให้ ผู้ให้
ฉัน ผู้ให้ ผู้ได้รับ ฉัน ให้ ผู้ให้ ผู้ให้
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ฉัน ผู้
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Elsewhere, however, it was found that the focused indirect object could occur preceding the direct object resulting in a SO DO V order. Significantly, this possibility also seems to be available whether the direct object is indefinite or definite and so is not linked to the information status of the direct object, as in (40), (41) and (42).

- Indirect objects as foci in double object/di-transitive sentences
- Possibility II: SO DO V available whether the direct object is definite or indefinite

3.5 Focused adverbs/PPs
A similar optional ability for an object to occur separating a focused element from the verb was found where the focused element was an adverb or a PP (postpositional phrase) indicating place, time or reason. Here as in the case of double object constructions with a focused indirect object two patterns were actually indicated to be naturally available.
Frequently the object of the verb (and all other arguments) precede the focused Adv/PP, so that the focused Adv/PP is in fact immediately pre-verbal, as shown in (43):

- Adverbs/PPs as foci in transitive sentences
- Possibility I: Sub Ob Adv/PP V

(43) မုန့်ဟောင် ပြေး သို့မဟုတ် မချင်ပျော် သူဟောင် က်န္းနားသည် မွန် ဝါတာ，
NEG.be.NEG. UHlaThein computer yesterday buy.REAL NOM，

မုန့်ဟောင် နေ့များ

No. U Hla Thein bought a computer yesterday, not today.’

However, it was also found to be possible for either an indefinite or a definite object to follow a focused Adv/PP, as in (44).

- Adverbs/PPs as foci in transitive sentences
- Possibility II: Sub Ob Adv/PP V

(44) Question prompt to answer: When did you read the report?

မုန့်ဟောင် မွန် ဆေးဝါကို တော် က်န္းနားသည် သူဟောင် မွန် ပြေး，të.
I yesterday report read.REAL．

‘I read the report yesterday.’

3.6 Summary of observed patterns

Certain global generalisations about the positioning of focus in Burmese can be extracted from a comparison of the patterns in 3.1–3.5, and these can be usefully described as deviations from the most neutral ordering of elements in a sentence. (45) below represents what can be taken to be the neutral, basic word of arguments and circumstantial adverbs in Burmese, and is a sequencing which does not automatically result in any special kind of topic or focus interpretation of any of the elements present, unlike other kinds of ordering. See also Wheatley (1982) and Okell (1969) for reference to canonical word-order patterns in Burmese.

(45) Neutral surface word order in Burmese

Sub Adv/PP(time/place) IO DO V

When any of the elements Sub, Adv/PP, IO or DO are the focus of the sentence, the data observed in sections 3.1–3.5 indicate that two patterns generally appear to be possible. In one common pattern it can be suggested that the focused element remains/occurs in the position it would regularly occur in in the neutral template in (45) and any other element which would otherwise normally occur between this focused element and the verb (in a
neutral ordering of elements) is (re-)positioned to the left of the focus. This results in the ‘pre-verbal’ focus effect, as schematised in (46) (focus underlined), and non-focal material which might intervene between the focus and the verb is evacuated from this position so that the focus occurs immediately preceding the verb. Described via the metaphor of ‘movement’ within a transformational approach, it can be suggested that the neutral underlying order of elements in (45) is converted into a different sequencing via the leftwards movement of non-focal elements which would otherwise intervene between the focus and the verb.

\[(46)\]

<table>
<thead>
<tr>
<th>\textbf{Neutral order}</th>
<th>\textbf{Order with focus}</th>
<th>\textbf{Analysed as movement}</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sub IO DO V</td>
<td>Sub DO IO V</td>
<td>Sub DO IO DO V</td>
</tr>
<tr>
<td>b. Sub DO V</td>
<td>DO Sub V</td>
<td>DO Sub DO V</td>
</tr>
</tbody>
</table>

Investigation indicates that this re-positioning of non-focal material is generally possible only when the repositioned material is informationally old in some sense: preferentially definite, and specific if indefinite (as in (30)), or pre-mentioned if a non-specific generic/type NP (as in (29)). Further data not presented here also indicate that the more ‘affected’ the non-focal material is by the action of the verb, and the more it is possible for the non-focal material to be a potentially emotive centre/centre of interest, the more natural this repositioning becomes. The leftwards repositioning described here can therefore be seen as a sub-type of clause-internal topicalisation—although the repositioning does not necessarily promote the NP to become a topic, like the leftwards positioning of elements to sentence-initial topic position, it is restricted to occurring with elements that are referentially given (in a certain sense).

It should also be noted that the NPs which undergo clause-internal repositioning in (46)a–c could alternatively be positioned in sentence/clause-initial position preceding the subject, which would result in an increase in prominence of the NP and more of a necessary topic-like interpretation.

A potentially different analysis of the relation of neutral base forms to derived surface focus structures might be to suggest that it is the focused element itself which moves/undergoes repositioning from its underlying base position to a position to the immediate left of the verb, as e.g. in (47), and that all other non-focal elements remain in their underlying base positions:

\[(47) \; \text{Sub DO V} \rightarrow \text{Sub DO Sub V}\]

However, if such an analysis were to be maintained, there would be no explanation of why this movement should be restricted to occur only when the non-focal material intervening between the focus and the verb is informationally old. If non-focal material is assumed to simply remain in its underlying, regular base position, it should clearly be possible for non-specific indefinite NPs that are informationally new to be ‘moved over’ by the focus. However, the output sequencing in (47) is not possible if the DO is informationally new. This restriction is much easier to capture in an analysis which assumes that it is informationally old material that moves away from the pre-verbal focus position allowing the focused element to occur linearly before the verb. Furthermore, if the DO is assumed
to be in its base position in (47) and occur as the complement of the verb forming a constituent with the verb, there should be no syntactic position available for the focused subject to move to, so such rightwards focus movement can be ruled out on purely theoretical grounds as well.

The second pattern observed in 3.1–3.5 is for non-focal elements to the right of a focused NP/Adv/PP to remain in their base positions (i.e. to remain in the position that they would otherwise occur in in the template in (45)). This is most common with direct objects when some other element further to the left in the underlying/base order such as the subject or an Adv/PP is focused. Such a strategy results in the focused subject/Adv/PP not being immediately adjacent to the verb. This second patterning is again consistent with the assumption that the focused element itself is not moved/repositioned away from its base position. What (arguably) occurs in the second patterning is that the direct object simply fails to move away from its underlying, normal pre-verbal position:

(48) Non-repositioning of non-focal elements which occur to the right of the focus in underlying/base word order

<table>
<thead>
<tr>
<th>Neutral order</th>
<th>Order with focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub DO V</td>
<td>Sub DO V</td>
</tr>
<tr>
<td>Sub Adv/PP DO V</td>
<td>Sub Adv/PP DO V</td>
</tr>
</tbody>
</table>

What does not seem to be found, apparently, therefore, is any obvious, regularised repositioning of focal elements themselves (unlike in languages such as Hungarian, where contrastively focused and wh elements are clearly always moved to a special pre-verbal position from their post-verbal base positions). During the course of the investigation, informants were in fact also presented with data in which a focused element was deliberately removed from its regular base/underlying position and relocated further to the left as schematised in (49). Such data, in which a focused element occurs to the left of elements which would normally occur to its right in neutral word order, were regularly rejected as unnatural and inappropriate. Examples of such orders are given in (49). The symbol # indicates that sequences of this type are ill-formed in the context of the underlined element being the focus of the sentence (the answer to a wh-question, or contrastive focus in a correction sentence):

(49) Orders not attested (inappropriate in context/unnatural)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>#Ob Sub V</td>
</tr>
<tr>
<td>(b)</td>
<td>#Sub DO IO V</td>
</tr>
<tr>
<td>(c)</td>
<td>#Adv/PP Sub DO V</td>
</tr>
<tr>
<td>(d)</td>
<td>#Sub Ob Adv/PP IO V</td>
</tr>
</tbody>
</table>

The occurrence of the orders in (46) and (48) but non-occurrence of those in (49) can be accounted for most naturally, it would seem, if it is assumed that focused elements do not tolerate repositioning within a sentence and simply remain in their underlying/base position, whereas other, informationally old elements may be optionally repositioned further to the left of the element in focus. The data examined furthermore indicates that this generalisation holds equally of both new information focus and contrastive focus. Studies of other languages with neutral SOV word order such as Korean and German have
indicated that contrastively focused NPs can be repositioned further to the left in the clause than their regular base position, hence that orders such as those in (49) are in fact possible with contrastive (but not completive) focus. It was therefore partly anticipated that this might be possible in Burmese too. However, informants regularly resisted the leftwards shifting of contrastively focused NPs, suggesting that Burmese is rather different from Korean and German in this respect.

Finally, it can be noted that the general observation of apparently optional word order variation in certain focus sentences (schematised in (46) and (48)) requires some further qualification. First of all, concerning frequency and naturalness of occurrence, informants tended to make much more spontaneous use of the first 're-positioning' strategy (i.e. the forms in (46)) in interview sessions, and the second strategy (schematised in (48)) where non-focal elements occurring to the right of the focus are not repositioned to the left was often noted to be possible only when informants were specifically quizzed further about different potential word orders in focus sentences. This was particularly the case when the intervening non-focal material was a definite or specific indefinite object rather than a non-specific indefinite object. Secondly, there appear to be limits on the way that the second strategy can be naturally used. Essentially it was found that a focused element such as a subject, adverbial/PP or indirect object can be naturally separated from the verb by one element (normally an object), as schematised in (50), but if more material occurs separating the focus from the verb, as schematised in (51), this results in the focus sequence being considerably less natural. Note also that the generalisation that one constituent can naturally/tolerably intervene between the focus and the verb does not allow for sequences such as those in (49) to occur, however, where the focus constituent is repositioned leftwards from its neutral base position. The separation of a focused constituent from the verb appears to be possible only when this results from the non-removal of an intervening (non-focal) constituent from its neutral/base position in the template sequence in (45).

(50) **Acceptable occurrence of a single element between the focus and the verb**

(a) Sub DO V  
(b) Sub Adv/PP DO V  
(c) Sub IO DO V

(51) **Unnatural occurrence of more than one element between the focus and the verb**

(a) ?? Sub Adv/PP DO V  
(b) ?? Sub IO DO V  
(c) ?? Sub Adv/PP IO DO V

There consequently appears to be a 'tolerance level' regulating how far a focused element can be naturally distanced/separated from the pre-verbal position, and when more than one element intervenes between the focus and the verb, such forms clearly deteriorate in their acceptability. What regularly occurred when the attempt was made to elicit subject focus sentences where more than one other element occurred in addition to the verb was that informants would either make use of the repositioning strategy so that the subject came to be adjacent to the verb, as for example in (52), or they would switch to a rather different syntactic construction, a cleft structure, as in (53):
Due to such qualifications, and in order to test how the alternations between the two strategies might perhaps relate to prosodic factors, a second part of the investigation was initiated focusing on intonation and the potential use of stress in focus sentences. This is now described in section 4.

4 Prosody and intonation in focus sentences

The general aim of the second part of the investigation was to test whether there is any prosodic signaling of focus in Burmese, perhaps via the use of stress. Having established that there is a strong positional encoding of focus and that focused elements occur either in the immediately preverbal position or sometimes separated from the verb by a single constituent, we hoped to determine whether this positioning is accompanied by any additional prosodic indication of focus. We also wanted to try to establish whether there might be sufficient intonational information present with focused elements to even disambiguate potentially ambiguous sentences presented out of context. A potential complicating factor here is the fact that Burmese is a tone language. It has often been assumed that the existence of tone may interfere with, constrain or even block the use of stress to highlight elements within a language. In the experimental work reported here, lexical items were deliberately selected so that all syllables used in the data have low tone. This was done so as to keep such a preliminary investigation to a manageable scale by excluding comparisons across tonal categories from the experimental design. Further study will therefore be required to investigate the effects of focus on stress patterns across all four lexical tones in Burmese. Finally, a related question we hoped to probe in the study was whether the pre-verbal positioning of foci in Burmese might possibly be attributed to the default location of nuclear stress in such a position, as argued by certain authors for verb-final focus structures in other languages such as German and Hindi.

4.1 Design of the phonetic experiment

The experiment consisted of two major parts – a production experiment designed to gather information on intonational patterns in sentences with focus occurring on different constituents, and a perception test, structured so as to establish how well the identity of the focus in a sentence can (or cannot) be perceived from intonational patterns alone. The two parts of the investigation fed into each other, and recordings made in the production experiment were played to those participating in the perception experiment (a different
group of native speakers). As the goal of the perception test was to establish how well focus could be perceived from the phonetic signal alone, an important aspect of the experiment was to make use of sentences which structurally would allow for the possibility of different constituents being interpreted as the focus of the sentence (i.e. be potentially ambiguous as to what part of the sentence corresponds to). In order to allow for this and to gather a range of different information, the two sentences in (54) and (55) were used extensively in the experiments.

(54) မီးမှာ နတ်ပက် သော့ ဗားဒို့ကား
MarMar  watch  buy.POL.REAL
‘Mar Mar bought a/the watch/watches.’

(55) မီးမှာ လျင်မြန်းပါးလှာ နတ်ပ သော့ ဗားဒို့ကား
MarMar  Yangon.in  watch  buy.POL.REAL
‘Mar Mar bought a/the watch/watches in Yangon.’

Given the observation from section 3 that a focused element need not always be immediately pre-verbal, the sentences (54) and (55) can theoretically serve as the reply to a number of questions, in which case the part of the sentence which provides an answer value to the question will constitute new information focus. For example, sentence (54) can naturally serve as the reply to any of the following questions:

(56)

a. What did MarMar buy?  narrow object focus
b. Who bought a watch?  narrow subject focus
c. What did Marmar do?  VP focus
d. What happened?  broad S focus

(54) used to reply to questions of the type in (56) will produce narrow focus on the object ဗားဒို့ ‘watch’ when responding to an (a)-type question, and narrow focus on the subject မီးမှာ ‘MarMar’ when responding to the (b). When (c) and (d) type questions are asked, (54) will produce new information focus on ဗားဒို့ ဗားဒို့.w ‘watch.buy’ (VP focus) for a (c)-type question, and broad sentential focus (consisting in the whole of (54)) for a (d)-type input.

In a similar way, sentence (55) can naturally serve as the answer form to the questions in (57):

(57)

a. What did MarMar buy?  narrow object focus
b. Where did MarMar buy a watch?  narrow adverb focus
c. What did MarMar do?  VP focus
d. What happened?  broad S focus

Note that because it is felt to be quite unnatural for a focus to be separated from the verb by more than one constituent, sentence (55) could not be used as a natural reply to a fifth
possible question ‘Who bought a watch in Rangoon?’. As the experiment hoped to gather information on narrow focus on an Adverb/PP preceding a direct object, and also wanted to test narrow focus on a subject preceding some other constituent, this resulted in the need for two sentences to be used rather than one. (54) critically allows for testing of narrow focus on the subject, and (55) for narrow focus on an Adv/PP. Finally, note that both sentences (54) and (55) follow the neutral ordering of elements in a sentence (i.e. (45)), hence there is no biasing towards any particular order due to the positions that the elements occur in.

In the production/elicitation experiments, four native speakers were recorded pronouncing sentences (54) and (55) as if they were the replies to the range of different questions in (56) and (57), varying the prosody of (54) and (55) as appropriate and necessary. Four speakers were chosen to produce the spoken material, all from Yangon and in their twenties or thirties. None reported abnormal speech or hearing, and one of the four was an experienced radio broadcaster and newsreader. The varied questions in (56)a–d and (57)a–d triggering the pronunciation of (54) and (55) as reply forms were asked by an interviewer in Burmese in quasi-random order, and the question and answer-pairs were recorded in the sound-proofed recording studio at the School of Oriental and African Studies in London on digital audio tape (DAT) using an electret condenser microphone with a Brüel-Kjær 2069 preamplifier. Each of the four consultants responded a total of three times to each question, yielding \(4 \times 3 \times 4 = 48\) tokens for each experiment. Finally, it can be noted that the sentences (54) and (55) used as reply forms were designed so that the consonants which occur at constituent boundaries are either sonorants or resonants, to keep pitch perturbation effects to a minimum.

Recordings of the same sentences pronounced with different interpretations in mind allowed for a careful acoustic analysis of the potential prosodic manifestation of focus in each case, and extensive phonetic information about both narrow and broad focus. In the follow-up perception test, the various recordings of the sentences in (54) and (55) were presented to native-speaker subjects as described in section 4.3 below. The subjects were asked to indicate which of the various interpretations in (56) and (57) the sentences were responding to. This test was intended to formally establish whether there was sufficient prosodic information in the pronunciation of focus sentences to disambiguate different focus structures within a single sequence of words.

4.2 Results I: the production experiments

The recordings of the production experiments detailed below were analysed using Praat (version 4.3.12) speech analysis software, also making use of a time-normalising script by Yi Xu (Xu 2005).

Production experiment 1

(58) and (59) illustrate pitch traces (measured as fundamental frequency in Hz) of four versions of sentence (54) spoken by two of the consultants — one male and one female — in response to the four prompt questions. The duration of the subject, object and verb phrase have been normalised for ease of comparison, so the duration of each appears equal on the horizontal axis.
The representations of pitch change in (58), (59), (63) and (64) show a final rise in pitch on the sentence-final verb marker သာ. This rise is associated with a formal reading speech-style, and is not relevant to the focus-related pitch changes under investigation.

(58) Sample, typical fundamental frequency traces (male speaker) of sentence (54) ‘Mar Mar bought a watch’.
(59) Sample, typical f0 traces (female speaker) of sentence (53) ‘Mar Mar bought a watch’

Patterns in the data were sought by listening to and scrutinising the sentences, and by using the Praat software to reduce the f0 traces from all 64 sentences to a mean f0 measurement for each constituent in each sentence. The mean f0 data are displayed in (60) below. Each set of three columns represents the mean f0 (pitch height) of the three constituents ( mamma ‘MarMar’, nàjì ‘watch’ and the final verbal cluster) in the twelve sentences spoken with each focus type. The bars thus represent the pooled data of all four speakers, two male and two female. It is assumed in calculating these means that between-speaker variation in the pitch, duration and loudness of the habitual speaking voices of the four speakers is constant.
(60) mean (n=12) fundamental frequency of each constituent in sentence (54) spoken with each of four kinds of focus (i.e. as answers to Burmese equivalents of (56)a–d).

The intensity and duration measurements of each constituent in each sentence were pooled in a similar fashion. The results are displayed in (61) and (62) below. To allow visual comparison of the total utterance length, mean duration is displayed using horizontal bars.
(61) mean (n=12) duration of each constituent in sentence (54) spoken with each of four kinds of focus.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>OBJECT</th>
<th>VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>māmā</td>
<td>nāji</td>
<td>wē:bā:de</td>
</tr>
<tr>
<td>MarMar</td>
<td>watch</td>
<td>buy:POL:REAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>focus type</th>
<th>subject focus</th>
<th>object focus</th>
<th>VP focus</th>
<th>sentential focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject focus</td>
<td>0.478</td>
<td>0.432</td>
<td>0.408</td>
<td>0.346</td>
</tr>
<tr>
<td>object focus</td>
<td>0.364</td>
<td>0.482</td>
<td>0.457</td>
<td>0.395</td>
</tr>
<tr>
<td>VP focus</td>
<td>0.510</td>
<td>0.564</td>
<td>0.551</td>
<td>0.542</td>
</tr>
<tr>
<td>sentential focus</td>
<td>0.510</td>
<td>0.564</td>
<td>0.551</td>
<td>0.542</td>
</tr>
</tbody>
</table>

mean duration (s) of each constituent in sentences with four kinds of focus
Focus in Burmese: an investigation and experimental study

(62) mean (n=12) relative intensity of each constituent in sentence (54) spoken with each of four kinds of focus.

![Intensity graph](image)

**Observations**

Note that the declination of fundamental frequency and intensity through all of the sentences is a universal prosodic template and is not attributable to any focus effects (i.e. it is natural for speakers to gradually lower their pitch levels and reduce the loudness of their speech during the course of a sentence, whether producing a sentence with focus in it or not). However, scrutiny of the pooled data and the individual traces like those in (58) suggests that focus affects sentence prosody according to the following general patterns of deviation from this template:

**fundamental frequency**

- VP vs broad sentential focus: $f_0$ generally starts higher and declines more rapidly for broad sentential focus than for verb phrase focus
  - object focus: object $f_0$ is higher
  - subject focus: object and V $f_0$ is lower (deaccented), but subject $f_0$ is no higher.

**duration**

- VP vs broad focus: the sentence is shorter with broad sentential focus than with VP focus; the subject is very short with broad sentential focus
  - object focus: the subject is shorter, the object is longer
subject focus: the subject is longer, the object and the verb are shorter (deaccented)

intensity

- VP vs broad sentential focus: all constituents are relatively more amplified (i.e. sound ‘louder’) with broad sentential focus than with VP focus
- object focus: the subject is slightly attenuated (de-accented), the object is more amplified
- subject focus: the subject is amplified, the object and the verb are attenuated (de-accented)

Production experiment 2

The results of Experiment 2 are presented below in the same order and format as for Experiment 1 above. Here, figures (63) and (64) relate to the longer sentence (55). The observations derived from the data follow table (67).

(63) Sample, typical pitch trace (female speaker) of sentence (55) ‘Mar Mar bought a watch in Yangon.’ NB The final rise is associated with formal reading style, and is not related to focus.
(64) Sample, typical pitch trace (male speaker) of sentence (55) ‘Mar Mar bought a watch in Yangon.’ NB The final rise is associated with formal reading style, and is not related to focus.
(65) mean (n=12) fundamental frequency of each constituent in sentence (55) spoken with each of four kinds of focus.

![Fundamental Frequency Graph]

<table>
<thead>
<tr>
<th>Focus Type</th>
<th>Subject</th>
<th>Adverbial</th>
<th>Object</th>
<th>Verb Phrase</th>
<th>Sentential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverbial</td>
<td>151.622</td>
<td>151.873</td>
<td>130.453</td>
<td>110.354</td>
<td>151.651</td>
</tr>
<tr>
<td>Object</td>
<td>153.544</td>
<td>143.731</td>
<td>144.334</td>
<td>122.049</td>
<td>155.002</td>
</tr>
<tr>
<td>Verb Phrase</td>
<td>154.237</td>
<td>143.045</td>
<td>132.721</td>
<td>120.622</td>
<td>160.001</td>
</tr>
<tr>
<td>Sentential</td>
<td>160.001</td>
<td>145.536</td>
<td>129.778</td>
<td>116.324</td>
<td></td>
</tr>
</tbody>
</table>

(66) mean (n=12) duration of each constituent in sentence (55) spoken with each of four kinds of focus.

![Duration Graph]

<table>
<thead>
<tr>
<th>Focus Type</th>
<th>Adverbial</th>
<th>Object</th>
<th>Verb Phrase</th>
<th>Sentential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb</td>
<td>0.494</td>
<td>0.359</td>
<td>0.708</td>
<td>0.462</td>
</tr>
<tr>
<td>Object</td>
<td>0.513</td>
<td>0.503</td>
<td>0.596</td>
<td>0.414</td>
</tr>
<tr>
<td>Verb Phrase</td>
<td>0.514</td>
<td>0.394</td>
<td>0.587</td>
<td>0.417</td>
</tr>
<tr>
<td>Sentential</td>
<td>0.505</td>
<td>0.371</td>
<td>0.543</td>
<td>0.400</td>
</tr>
</tbody>
</table>
(67) mean (n=12) relative intensity of each constituent in sentence (55) spoken with each of four kinds of focus.

**Observations**

For the reasons noted earlier, the sentence used in *Production experiment 2* cannot be used to elicit an acceptable/natural subject focus. We can, however, observe the effects of the four types of focus compared in *Production experiment 2* on all four constituents in the sentence, including the subject.

Not surprisingly, with four constituents in the sentence instead of three, the patterns appear more complex. The universal template of declining fundamental frequency and intensity applies here also, but with four constituents to fit into the sentence’s intonation pitch range instead of three, the relative ‘pitch space’ of each is smaller and the perturbations attributable to focus are thrown into sharper relief.

**fundamental frequency**

- VP vs sentential focus: no discernible difference in relative pitch of individual constituents, but sentential focus starts higher and declines more sharply
- object focus: the object is raised in pitch, on average slightly higher than the preceding adverbial phrase
- adverbial phrase focus: the adverbial phrase is raised in pitch, on average slightly higher than preceding subject; the pitch of the object is slightly lowered

**duration**

- VP vs sentential focus: sentential focus is globally shorter than VP focus.
- object focus: the object has a longer duration
- adverbial phrase focus: the adverbial phrase is longer, the object shorter
intensity

Often, intensity and fundamental frequency are correlated in speech, i.e. higher pitch sounds are generally also louder, but such a correlation is not observed in Experiment 2.

- VP vs sentential focus: no clear effect
- object focus: object (and V) amplified, preceding adverbial phrase attenuated
- adverbial phrase focus: adverbial phrase amplified

Generalisations

VP and sentential focus are not differentiated by prosodic effects on particular constituents. Rather, sentential focus is characterised by globally raised pitch with more rapid rate of declination through the sentence, by globally increased intensity and by reduced duration – i.e. a faster speech rate.

When the object, adjacent to the verb, is in focus, this is signaled by the object constituent being higher, longer and louder, and these are taken to be the phonetic correlates of stress in this position. There is some evidence from the pooled data that stressing the object in this way also results in stressing the verb to some degree as well. Alternatively, the same statistical effect could indicate that some speakers are conflating the object and verb phrase into one prosodic phrase and jointly stressing this single prosodic unit.

When a constituent in focus is not adjacent to the verb, as is the case with subject focus in Experiment 1 and adverbial phrase focus in Experiment 2, then the constituent between the focus and the verb, and indeed the verb itself, are de-accented. The phonetic correlates of de-accenting are lower pitch, shorter duration and lower intensity.

Here, constituents positioned to the left of the focus appear to undergo de-accenting to a lesser degree than those positioned between the element in focus and the verb phrase.

4.3 Results II: the perception of focus

Two perceptual experiments were devised to test the extent to which listeners were able to recover the intended focus in the speech material elicited for Production Experiments 1 and 2 above. In essence, subjects were asked to listen to the various recordings of the sentences (54) and (55), and to judge which of the questions in (56)a–d and (57)a–d the sentences were responding to. These tests were intended to establish whether there is sufficient prosodic information in the pronunciation of focus sentences to disambiguate different focus structures within a single sequence of words.

Experimental design

The experiments were conducted as follows. The subjects selected were nineteen native speakers of Burmese, all current or former residents of Yangon, none of whom had formal training in linguistics or reported speech or hearing abnormalities. For both experiments, a set of sixty-four stimuli was assembled:

- four speakers;
- four types of focus (stimuli responding to one of four prompt questions);
- two repetitions produced by each speaker
- each sentence presented twice in the experiment
  \[4 \times 4 \times 2 \times 2 = 64\text{ sentences in each set.}\]

The experiments were conducted using the Praat speech analysis software’s ‘multiple forced choice’ facility, which presented the set of stimuli to each subject in quasi-randomised order, avoiding repetitions of the same stimulus. On hearing each sentence, subjects were required to select which of the four questions it was responding to by clicking with a mouse on the appropriate place on a computer screen. The judgements were made without time pressure, but subjects did not have the option of changing their mind.

**Results of the perception tests**

The first thing to note in the results is a relatively high degree of variation between the speakers who produced the stimuli used in the perceptual experiment. Chart (68) shows the percentage of all sentences which were judged correctly for each of the four speakers whose recordings were used in the perceptual experiments. The speakers can be ranked for their ‘general intelligibility of focus’. In other words, it was apparently globally easier for subjects to perceive intended focus in the speech of certain speakers than for others. This suggests that there may be a between-speaker difference in the extent to which Burmese uses prosody rather than syntax to convey focus. This variation falls outside any significant effect within the experimental design.

(68) \% of tokens perceived correctly by all subjects, ranked by speaker

Mean = 48.75\%

Conversely, chart (69) shows the percentage of correct judgements made across both experiments by each subject, ranked according to decreasingly successful ‘performance’. A few subjects performed much better than most, and a few much worse, but the distribution appears relatively normal. It is perhaps the case that the ‘good’ subjects learnt to discriminate between categories in the test which might not be considered normally
perceptible, and that some subjects never really grasped the purpose of the task in hand. Again, this variation between subjects has to be taken into account when interpreting the results.

(69) % of tokens perceived correctly by all subjects, ranked by subject
Mean = 49.34%

Perception Experiment 1
The results of Perception Experiment 1 are set out below in (70); the data in (70) is expressed in percentages in (71).
(70) Judgements of focus type in sentence (54) categorised by intended focus of stimulus in Perception Experiment 1

<table>
<thead>
<tr>
<th>focus type intended by speaker</th>
<th>subject</th>
<th>object</th>
<th>verb phrase</th>
<th>sentential</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>12%</td>
<td>19%</td>
<td>16%</td>
<td>19%</td>
</tr>
<tr>
<td>object</td>
<td>16%</td>
<td>21%</td>
<td>29%</td>
<td>55%</td>
</tr>
<tr>
<td>verb phrase</td>
<td>23%</td>
<td>29%</td>
<td>30%</td>
<td>18%</td>
</tr>
<tr>
<td>sentential</td>
<td>*39%</td>
<td>29%</td>
<td>13%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Observations

The results above indicate that the type of focus which was correctly perceived most easily from the acoustic signal was object focus: subjects labelled this category correctly in 55% of cases, more than twice as often as might have been judged correctly by pure chance. When sentences with object focus (i.e. answers to questions eliciting the object as new information) were not perceived correctly by subjects, the latter most commonly mistook these sentences for sentences with VP focus (i.e. answers to questions eliciting both the object and the verb as new information). This corroborates the findings made in the production experiments that the phonetic correlates of stressing objects as foci are observed to a degree on the verb as well, so that the verb often appears to be given additional stress in instances of simple object focus. Hearers then seem to rather naturally...
Andrew Simpson and Justin Watkins

mistake certain cases of simple object focus for instances of VP focus where both verb and object have increased stress.

The next easiest focus type for subjects to identify correctly was subject focus: 50% of sentences with intended subject focus were perceived without error. As with object focus, this again indicates that there is often sufficient prosodic information in the production of focus sentences for hearers to disambiguate the intended meaning of the sentence without additional, contextual clues. When instances of subject focus were not correctly identified, however, it was found that subjects were likely to hear any of the other focus types with roughly equal probability, suggesting that the percept of subject focus is not readily confused with — and perhaps not acoustically similar to — other focus types.

Broad sentential focus was found to be somewhat more difficult for subjects to judge correctly: 39% of stimuli produced with intended sentential focus were correctly categorised, significantly more than chance. Nearly half the errors made here were labelled as VP focus, further evidence of the acoustic similarity between VP and sentential focus.

Finally, subjects found VP focus the hardest to identify correctly, and this was judged correctly only slightly more often than might be expected by chance. In addition to this, it was found that when mistakes were made, subjects mistook VP focus for any of the other categories of focus with more or less equal probability.

**Perception Experiment 2**

(72) Profile of judgements of focus type in sentence (55) categorised by intended focus of stimulus in Perception Experiment 2.

The data in (72) are expressed in percentages in (73):
### (73) Perception Experiment 2

| % of tokens (n=256) perceived as each focus type, rounded to whole integers (* = correct judgement) | intended focus in stimulus |
|---|---|---|---|---|
| sentential focus | adverbial focus | object focus | VP focus | sentential focus |
| 8% | 9% | 5% | *78% |
| 7% | 13% | *72% | 8% |
| 22% | *29% | 25% | 24% |
| *36% | 40% | 8% | 16% |

The results of Perception Experiment 2 corroborate the findings from Perception Experiment 1, and lead to some firm conclusions. In common with Experiment 1, VP focus was not readily discernible for subjects. The responses are evenly distributed across all four categories. Sentential focus was identified moderately well, and was most often mistaken for VP focus. Both adverbial phrase focus and object phrase focus are identified with considerable accuracy — 78% and 72%, respectively. As in Experiment 1, object focus is slightly more likely to be mistaken for VP focus than either broad or VP focus.

### 5 General conclusions

Having detailed the findings of the individual production and perception experiments, we are now in a position to highlight certain broad conclusions resulting from the production/perception experiments and the syntactic investigation of word order in focus constructions. Quite generally, the results of the production/perception experiments confirm that stress is most definitely employed in the signaling of new information focus in Burmese, and was observed in the production experiment in the form of increased f0 (higher pitch), increased amplitude (loudness) and longer duration of syllables/words in focus. In the perception experiments it was found that the presence of stress on constituents in focus is also well perceived by hearers, and most clearly so when there is narrow focus on an argument (subject, object) or adverbial.

If such observations are now combined with the conclusion of the syntactic investigation that elements in focus are most naturally positioned in pre-verbal position, as in a range of other verb-final languages (e.g. Turkish, Hindi), it can be seen that the stress associated with new information focus will characteristic be realised and occur towards the end of a sentence, in pre-verbal position. This is an observation which has been made for a significant number of languages, both verb-final languages and verb-medial languages (such as, for example, English), and has often been attributed to the workings of a rule of ‘nuclear stress’ applying in various languages. It is suggested (e.g. Cinque 1993) that the syntactically most deeply-embedded position in a sentence is where a regular ‘nuclear stress’ is pronounced, and where syntactic constituents occur in such a position, they will be naturally highlighted and focalised by the stress which is regularly generated there. In such a view, stress is an automatic feature of a sentence’s most deeply-embedded position, and the requirement that focused elements be highlighted by stress is seen to attract such elements to this position. A natural question in the light of what has been observed in the course of the present chapter is therefore whether the situating of focal elements in pre-verbal position in Burmese should be assumed to be the result of a similar nuclear-stress rule operating in Burmese? We believe that this would actually not be an
appropriate characterisation for Burmese, and that the relation of focus to intonation and stress is rather different in Burmese, as will be suggested below.

A first reason to be doubtful that a nuclear stress rule is responsible for attracting new information foci to pre-verbal position in Burmese is that pre-verbal (nuclear) stress does not seem to be obviously present in other sentences in Burmese which are not specifically responses to questions asking for new information. In an add-on to the major production and perception experiments, informants were asked to read passages of Burmese text in which sentences similar to (54) and (55) were embedded, and where the elements present in such sentences could naturally be interpreted as constituting new information. Measurement of the intonation patterns used in the reading of such texts showed very little of the regular application of stress which occurred when the same informants produced similar sentences as the responses to direct questions (though informants also did not pronounce the sentences in the text with any special, flat, ‘reading’ intonation). Studies of nuclear stress in other languages have observed that the occurrence of sentence-final nuclear stress is, by way of contrast, generally automatic and present in all sentence-types, and is not restricted just to the answer-forms provided to questions. The apparent absence of clear pre-verbal stress patterns in Burmese sentences which are not the answers to questions therefore seems to suggest that automatic nuclear stress is not a characteristic property of Burmese. Secondly, the syntactic investigation of focus in Burmese showed that it is not only new information focus that occurs in the special pre-verbal position, but also contrastive and corrective focus, and speakers commonly resist the placement of contrastive focus in other non-pre-verbal positions. Nuclear stress is, however, assumed to be a rule which regulates only the placement of new information focus in a language, and does not enforce the placement of contrastive foci in any similar, sentence-final position. Hence whereas new information foci are restricted to the sentence-final position of nuclear stress in languages such as Italian and German (Zubizarreta 1998), contrastive foci are free to occur stressed in any position within a sentence. In Burmese this is not so, and both new information foci and contrastive foci are found to naturally target the same pre-verbal position. The fact that elements in contrastive focus are also drawn to the pre-verbal position suggests that it is not the occurrence of nuclear stress which marks out this position as special, as nuclear stress would only be expected to attract elements instantiating new information focus (and not contrastive foci, which would be anticipated to occur stressed in other positions within a sentence).

Consequently, a more accurate characterisation of focus and the occurrence of stress in Burmese would seem to be that there is a more primitive notion of sentential prominence associated with the pre-verbal position in Burmese (i.e. more primitive than simple association with a nuclear stress), and this naturally attracts all elements which have a focal role within a sentence, both new information foci and elements in contrastive focus. Highlighted thus primarily via a positional strategy, it can be suggested that a secondary reflex of focal prominence is the addition of stress to an element located in the pre-verbal position. The use of stress on focal elements can therefore be suggested to function as an ancillary encoding of sentential prominence, which is more basically communicated by structural means\(^2\), and foci are located in the pre-verbal position not explicitly to acquire

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\(^2\) Prominence can also be encoded via focus-related particles in certain instances. The use of focus particles has not been made part of the present study, for simple reasons of space, and is intended to be the subject of extensions of the current work.
the stress which may be assigned to such a position (as might be assumed under a nuclear stress type approach), but to acquire the more basic positional prominence naturally associated with sentence-final positioning before the verb. In other words, the occurrence of stress on elements in focus can be viewed as a common natural side-effect of such elements being made prominent via other (structural) means, and not as a primitive force driving focal elements to the pre-verbal position.

A second general finding of the production experiments discussed in section 4 was the occurrence of de-accenting of certain non-focal material in sentences with new information focus. Critically this was seen to occur in certain instances where the constituent in focus actually did not occur in the canonical pre-verbal focus position. Such a situation was noted (in section 3.3) to occur in the special circumstances where a subject or an adverb is the element in focus, and the object of the verb is both indefinite and non-specific. Due to its non-topic-like informational status, there is a strong resistance to positioning the object before a focused subject or adverbial, and it therefore regularly occurs between the focus and the verb, resulting in sequences such as (74):

(74) a. SubjectFOCUS Object V
    b. Subject AdverbFOCUS Object V

Because of the unavailability/unnaturalness of positioning a non-specific indefinite object before the subject or adverb in a sentence, focus sentences containing non-specific indefinite objects are potentially ambiguous, and in principle allow for hearers to assume that the focus is either the indefinite object itself, or the subject/adverb which precedes it. Because there are no natural alternative ways to arrange the constituents of the sentence, the identity of the focus of the sentence can in such cases not be determined from word order alone, and it cannot be concluded that the element in immediately pre-verbal position is necessarily the intended focus of the sentence. Here, therefore, intonation and stress potentially do have important roles to play, and can function to disambiguate the intended meaning of a sentence. In the production experiment, two effects of this were noted to occur. The first of these was that stress occurred on the element in focus. The second effect, when the focus did not immediately precede the verb (i.e. cases of subject or adverbial focus), was that the intervening indefinite object was observed to undergo de-accenting and a clear reduction in f0, duration and amplitude. Such prosodic attenuation of the object seems to function to make it less ‘visible’ in pre-verbal position and allow for a preceding focus to be perceived as having sentence-final prominence, even though not immediately adjacent to the verb. Consequently, in certain instances, the dominant positional encoding of focus in Burmese can be found to be well assisted by the availability of stress and its intonational converse, the de-accenting of sentence constituents.

Finally, it should be remembered and emphasised that the production and perception experiments carried out in the present study have restricted themselves to lexical items which have exclusively low (level) tone. It will be an important question for future research projects to establish whether the results generated here with regard to the occurrence and manifestation of stress may carry over in the same or different ways to

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3 Stress occurred in particular on focused adverbs and objects. Focused subjects showed increased duration, but no clear increase in pitch, as sentence-initial elements regularly occur with a high level of pitch.
lexical items with other tones in Burmese. We also feel that it will be instructive to compare the type and level of stress present in contrastive and corrective focus with that of new information focus, something which we were not able to undertake in this pilot exploration of prosody and focus. Hopefully, the present study will serve as a useful baseline reference for careful future investigations of this type.
Reflexives in Literary and Spoken Burmese

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1 Introduction

The Burmese reflexive has three alternative forms. The oldest form, which attests from the Myazedil/Rajkumar inscription onwards, and persists in modern literary Burmese, uses မမိ as the reflexive pronoun; for direct objects this is usually followed by the noun ကြား kò ‘body’, thus literally meaning ‘self’s body’. This reflexive has numerous cognates in Loloish languages and ultimately derives from the Tibeto-Burman etymon ဗိ ‘person’. In the second reflexive form the noun ကြား kò ‘body’ is reanalysed as the reflexive pronoun. The direct object ကြားကြား kòkòkò is the most frequent example of this form. This comprises two occurrences of ‘body’, the first in possessive form, and the second as the object marker which also ultimately derives from ‘body’. As discussed below the constituency of this quite frequent form is a point of disagreement among Burmese grammarians, with the result that it may be seen spelt in various ways. This reflexive also enters into a variety of other constructions, parallel to the မမိ form. The third reflexive form, derived by reanalysis of the second, uses any pronoun twice, separated by the noun ကြား kò ‘body’ or less frequently another body part noun. This is primarily used as a direct object form.

Modern literary Burmese still uses the မမိ reflexive, but modern spoken Burmese normally uses either the ကြားကြား kòkòkò form or the pronoun + ကြား kò + pronoun form. In a reflexive context, the use of one of these reflexives is not obligatory, but if a reflexive is not used, the sentence is ambiguous and would normally be interpreted as non-reflexive. Burmese uses reflexives quite frequently with abstract verbs for mental attitudes and states, but considerably less frequently with concrete action verbs.

Both the မမိ form and the ကြားကြား kòkòkò form lack marking of the person and number of the subject, and are thus ambiguous if an overt subject is not present.

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1 A previous version of this paper was presented at the Australian Linguistics Society Conference, Adelaide 1993 (see Bradley 1995). I would like to thank various speakers of Burmese including Daw Tin Tin Nyunt, U Sein Win and Mo Mo Aung for providing examples. I am also very grateful to various colleagues including John Okell, U Thein Tun and Anna J. Allott for comments. The transliteration of Burmese inscriptions and the transcription of Burmese follow the conventions used elsewhere in this volume. Naturally any errors in data or analysis are my own responsibility.
in the context. This may be one motivation for the development of the pronoun + ᾽κό +
pronoun form.

2 Pronouns in Burmese

For full details of the pronoun system in Burmese and its development from Old Burmese
to Modern Burmese, see Bradley (1993). During the nine centuries of records of written
Burmese, there have been very substantial changes including the appoggioration or
replacement of virtually every pronoun, in some cases more than once. Unlike most other
function words, these pronouns do not differ between the modern literary High and the
spoken Low. The usual modern forms are cited in (1) below.

(1) Pronominal forms in Modern Burmese

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>᾽κό</td>
<td>I (male speaker)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>I (female speaker)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>I (speaking to intimate or inferior)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>I (used in rural areas, mainly by male speakers)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>you (male speaker)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>you (female speaker)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>you (speaking to intimate or inferior)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>you (speaking to intimate or inferior)</td>
</tr>
<tr>
<td>᾽κό</td>
<td>he/she (usually human, always animate)</td>
</tr>
</tbody>
</table>

In Burmese, pronoun forms are fairly infrequent in running discourse; the unmarked
assumption is that a statement has a first person subject and that a question has a second
person subject, unless the context shows or implies otherwise.

Pronouns also have an attributive/possessive form which replaces a final heavy or level
tone with a creaky tone (CRK), e.g. ᾽κό ᾽κό I CRK ‘my (male speaker)’; those which
already end in creaky tone, such as ᾽κό ᾽κό ‘I/my (female speaker)’, have the same
form. The pronoun plural marker was ᾽κό ᾽κό’ from the earliest inscriptions, regularly
giving modern ᾽κό pronounced ᾽κό. This was originally voiceless ᾽κό and can be related to
the fairly widespread Loloish etymon *daw ᾽daw ‘body’; cognates are also used as a reflexive
in some of those languages. In Burmese, the plural marker may be productively added to
any of the above pronouns, but pronouns without the plural marker do also occur in plural
contexts. All of these pronouns, with or without plural marker, may occur in the
‘attributive or possessive form pronoun + ᾽κό kò + pronoun’ reflexive construction
discussed later. The same marker with the formative prefix ᾽κό ᾽κό’ as seen in the
inscriptional form ᾽κό ᾽κό’ was most likely a first person plural exclusive. When the
prefix was later lost, it retained medial juncture voicing and this is the source of the
modern first person plural (inclusive or exclusive) ᾽κό ᾽κό. There are various restrictions on
the plural marker in reflexives, as discussed below.

While the earliest Burmese inscription, the Rajakumar (dated 1112 C.E.), provides
evidence for juncture voicing in noun compounds such as ᾽κό ᾽κό man’ gri ‘king’ + ‘big’ >
‘great king’ (lines 15–16), in almost all such cases later spellings show the unvoiced forms
instead. The modern form is now written ᾽κό ᾽κό: man’ kri” showing the base form of the
second element, but is pronounced ကြဲ့ min.ə, with medial voicing. Other dialects of Burmese show much less medial voicing: some do not voice medial aspirates, others do not voice medials at all, except where a Burmese doublet form has been borrowed. In standard Burmese this juncture voicing is one of the main markers of unity between the noun or verb stem and any following associated components of a compound – suffixes, modals and other markers. It is also regular for reduplicated verbs but not reduplicated nouns.²

Many of the modern Burmese pronoun forms are denominal: this includes the reflexives. The literary reflexive appears to be derived from a reduplication of Sino-Tibetan etymon *mi 'person', while the spoken reflexive is derived from the Sino-Tibetan etymon *s-ku 'body'. Parallels for this semantic development can be found in a number of languages of the region, as well as elsewhere.

It is often difficult to disentangle the literal 'body' and the extended object marker or pronominal uses of ကြဲ့ kuiv in early inscriptions, since they are written the same. The reanalysis of ကြဲ့ kə as a reflexive appears to have been fairly early. More recently, as in many other languages, this reflexive has itself shifted to a nonreflexive pronominal use. Thus, in early modern Burmese ကြဲ့ kə alone could also be used as a second person pronoun, to which the pronoun plural marker ၊ could also be added. Judson (1853) provides some examples of ကြဲ့ kə used as a second person pronoun by male or female intimates to women; Tun Nyein, which is often somewhat archaic for its period, includes ကြဲ့ kə in the list of second person pronouns. However, in current spoken Burmese ကြဲ့ kə alone is used mainly but not only by male speakers as an informal first person pronoun, and not as a second person pronoun, further illustrating the instability and openness of the pronoun system in Burmese. With the royal or honorific suffix ၊, ကြဲ့ kə, ကြဲ့ ၊ ‘body.HON’ could formerly be used as a second person pronoun to address superiors – monks and others. This is clearly another extension of the ‘body’ meaning. Its replacement by the current ကြဲ့ kə ‘master.deity’ is another example of the relatively rapid changes in the Burmese pronoun system.

Yet another independent development, discussed further below, is the modern spoken object/goal/allative noun marker ကြဲ့ kə from the same nominal source; this has been differentiated from the nominal/reflexive spelling as noted below.

3 Case marking in Burmese

Burmese is a typical SOV language: all case marking is done with suffixed cliticised markers. These are phonologically joined to the preceding nominal by various juncture phenomena which likewise link the verb and associated modals and other markers. Many of these markers are historically derived from grammaticalised nominal, verbal or other forms. This case marking is largely optional, and used relatively sparingly in spoken language. Probably due to the influence of Pali as the liturgical language of Buddhism, written language marks a far greater proportion of cases on NPs, and makes some distinctions absent from spoken style.

² For example ကြဲ့ kəu ‘good’, reduplicated ကြဲ့ဗေ့ဗေ့ kəungəung ‘well’, but ကြဲ့ ကြဲ့ ၊ reduplicated ကြဲ့ ၊ ‘older brother’.\n
The well-known productive grammatical tone sandhi process links a possessor noun to the following possessed noun: the final syllable of the pronoun or other noun (if not already creaky tone) changes to creaky tone. The most obvious example of this is the attributive/possessive pronouns. This process is attested from the earliest inscriptions to the present. For example, the ‘Myazedi’ lines 36 and 37 has c 6a plus various kinship terms, e.g. line 36 c 9a sā ‘my son’, instead of the usual subject pronoun form c1 6a found elsewhere. More relevantly, on the 9200 leml ecosystems ‘Four Face’ Pagoda inscription dated 1232 (Burmese calendar 594) (Aung Thaw 1972), lines 12, 19, 24 and 29 on stone three, face four, show c1 6a kuiv’ ‘me’ (lit. ‘my body’), here ambiguous between a pronoun plus the noun ‘body’ and a pronoun plus direct object marker — a perfect example of the right environment for a reanalysis! The origin of the o? k6 object marker from a possessor Noun + possessed ‘body’ NP is further indicated by the productive application of the noun tone creaking process before this noun marker, probably of possessive origin.

The early orthographic indication of the creaky tone is a final glottal stop. This and the heavy tone written (if at all at that period) with a final -h' are only very sporadically indicated in the earliest inscriptions. Alternatively, Indic short vowels (creaky tone) as opposed to long vowels (other non-stop final tones) may indicate the contrast for the vowels a, i and u, but the writing of this vowel-length distinction is also not very consistent in the twelfth and thirteenth centuries. Given also the provisional nature of the spelling in most of the earliest Burmese inscriptions, it is difficult to be absolutely certain that the grammatical sandhi creaky tone was already regular and productive in the twelfth century, but it is quite likely. This grammatical sandhi process can perhaps be derived from a fused form of the possessive marker, inscriptional and literary o? k6 (modern spoken k6).

A similar alternation can be observed in possessive forms of pronouns in several other Burmese-Lolo languages including other dialects of Burmese, other Burmish languages such as Hpun, and Loloish languages in each subgroup of Loloish including Southern Akha among others, Central Lisu, Jino and others, and Northern Nosu and others.

As noted above, other noun marker forms also come at the end of the noun phrase, which consists maximally of a relative clause or a demonstrative, the head noun or compound noun with suffixes such as plural if any, and a quantifier expression consisting of one or more sequences of number plus classifier. Various markers have continued in use from the earliest inscriptions to the modern literary style, but most of these have been replaced in the modern spoken language. In early inscriptions, objects (direct and indirect) could be followed by the marker 9200 d”, while some direct objects, especially human ones, could be followed by o? kuiv’ (from ‘body’) instead. This situation is preserved in the distribution of modern literary Burmese 9200 ?à and o? k6, but with wider distribution and greater frequency of o? k6 after direct objects. In modern spoken Burmese o? k6 has

3 This is not too surprising given that many early writers of Burmese would have been Mon speakers, whose language was then non-tonal. Bradley (1982) suggests that the Burmese tones at that period may have included various phonation, duration and vowel quality characteristics which also exist in modern Burmese though they are less prominent than the pitch differences.

4 Here, the short vowels and the syllables written with a subscript glottal stop are differently transliterated following the usual practice outlined in the introduction to this volume; though both presumably represented creaky tone.
completely replaced ఢా with both indirect and direct objects, and there is a strong constraint restricting the occurrence of థ kõ to only one NP in a sentence.

The process and chronology of the replacement of ఢా by థ kõ in Burmese is a fascinating topic which falls beyond the scope of this discussion. Other changes in markers are mostly one-for-one replacement of existing markers in spoken Burmese, with the Old Burmese forms still retained in literary Burmese. Some of the elaboration of markers, for example the subject form in modern written Burmese, can perhaps be attributed to the influence of word-by-word calquing of Pāli texts. See Okell (1967) for details of this so-called Nissaya Burmese.

What can be noted is that Old Burmese, from its earliest inscriptions, already shows the accusative marking on nouns, which is characteristic of Burmese-Lolo languages and southeastern Tibeto-Burman in general. There is no evidence of ergativity in Burmese from the beginning of the twelfth century, which is rather inconvenient for those who wish to postulate ergativity as a Tibeto-Burman characteristic.

4 Reflexives in Burmese

The modern reflexive forms are literary ఋ mimi and spoken ధ kõ. More specifically, the spoken direct object reflexive is one of either (2) or (3):

(2) ధ kõ

(3) Pro, [CRK] + ధ kõ ‘body’ (or other body part noun) + Pro;

The formula in (3) represents any pronoun form in its possessive form with creaky tone applied on the final syllable (if not already creaky), plus ధ kõ ‘body’, plus the pronoun repeated in full. Other body part nouns may also be used in place of ధ kõ, as in (9) below. The literary form occurs from the earliest inscriptions; the ధ kõ spoken form comes in gradually, and is derived from the noun ‘body’; the Pro, [CRK] kõ Pro form results from reanalysis of the ధ kõ form. The spoken forms are unusual in that their components do not undergo juncture voicing.

Burmese speakers disagree about the ‘correct’ spelling of the ధ kõ reflexive. Some prefer ధ [CRK].OBJ body’, i.e. ‘body + object marker + body’; others prefer ధ [CRK].body.OBJ’, i.e. ‘body’s body + object marker’. Both spellings are given in Ba Han (1966). It is said that the government and the Burmese Department at Rangoon University prefer the latter. Both are grammatically plausible reflexives: given the semantic change ‘body’ > ‘self’, the former suggests ‘self + object marker + self’, as two separate NPs; the latter implies ‘self’s body + object marker’, as a single NP. However, neither is parallel to the ‘attributive-possessive pronoun + body part noun + pronoun reflexive’ construction, which would instead suggest ధ [CRK].body.OBJ, ‘body’s body + body’, as a two-NP construction. Perhaps the various alternatives have all contributed to the modern ధ kõ construction; but the lack of juncture voicing suggests

5 While reduplicated nominal forms such as kinship terms like ధ kõ ‘older brother’ are also not subject to juncture voicing, the ధ kõ reflexive is not synchronically a reduplication, even though each of its three components is ultimately derived from the noun ‘body’.
that neither the second nor the third kò is the object marker, as this would normally be voiced to gö in either of the two environments suggested by the alternative spellings.

This noun ‘body’, Old Burmese ṭoś kuiy’, modern ṭoś kuiy’ kò and the reflexive derived from it contain a false etymology in the modern spelling, adding a final orthographic ṭō y’ based on the unrelated but lookalike Sanskrit/Pāli form kāya. The word ‘body’ may also be expressed using longer, more formal versions which start with ṭoś kò and continue with a Pāli doublet, e.g. ṭośkāja or ṭośkāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body’. These forms may be further extended with a Burmese nominal doublet, e.g. ṭoškāndā – both ‘body + body'.

An earlier grammaticalised form from the same noun was the noun object marker ṭoś kò, but this is spelled without the spurious Pāli-influenced final ṭō y’. In this object marker use, it is absent from the earliest inscriptions starting in 1112, but starts to appear by 1147. It was at first only with animate patients, but by 1169 was occasionally being used with inanimate (noncorporeal) noun direct objects, and by 1182 with complement clauses and in an allative sense. It has subsequently, as in the undated but early Lawka Hteikpan inscriptions (Ba Shin 1962), generalised further to goals in ditransitive or causative constructions as well, and in current spoken Burmese covers all these functions.

It is now stylistically unacceptable to have more than one object marker ṭoś kò in a clause, and in normal running discourse few of the direct or indirect objects have ṭoś kò suffixed to them. Like other such suffixes, it normally voices when the immediately preceding syllable does not end in a stop.

In Burmese, only a noun phrase coreferential with the subject can be reflexive. This can be in the same clause, in an embedded clause within the same sentence, or in a following conjoined clause or subsequent sentence in the same discourse context where the antecedent is clear. As Burmese is a typical verb–final language, most embedded clauses precede the subject. Accordingly, the reflexive in an embedded clause often precedes its subject antecedent if that antecedent is present. Furthermore, as Burmese is a language which does not require overt subject pronouns, the antecedent may be completely unexpressed; in such a case the reflexive is ambiguous or generic if the antecedent is not clear from the context. Like most verb–final languages, Burmese is most frequently SOV but the exact order of noun phrases is pragmatically determined. For the reflexive direct object the grammaticalised unitary construction requires what is an O+S order, or for some speakers alternatively an O+S preceded or followed by the nonreflexive form of the S.

Reflexives occur in various case roles; the main one is direct object, with more or less fossilised possessive and embedded subject forms. Other case roles, such as indirect object and so on, are filled by the possessive form of the reflexive pronoun (oś kò ‘REFL.CRK’) plus a noun form. The Burmese reflexive does not also have a reciprocal meaning: with a plural antecedent, the action is distributive, not reciprocal. Unlike the corresponding nonreflexive pronouns, the oś kò reflexive may not add the plural marker, but the literary mîmî may do so, as in (24) below. On the other hand, the extended kò non-reflexive pronoun may have been the plural marker. This pluralised usage was attested by the early nineteenth century, as indicated by an example in Judson (1853:203).
5 Direct object reflexive

As noted above, the exact structure of the spoken Burmese direct object reflexive pronounced ḥokhok is a matter of dispute. The 'standard' analysis suggests that it is a single NP comprising a possessive reflexive pronoun ḥok, the noun ḥok 'body' and then the object marker ḥok. But by this analysis the normal juncture processes would suggest a form ḥok ḥok ḥok 'REFL.CRK body.CRK.OBJ' since the pronoun should acquire creaky tone before an object marker, and the object marker should become voiced. The alternative spelling suggests that it is a sequence of two NPs: the first consists of a reflexive pronoun ḥok and the direct object marker ḥok and then a second NP ḥok 'body' or 'REFL'. By this analysis the normal juncture processes would suggest a form ḥok ḥok ḥok 'REFL.CRK.OBJ REFL (or 'body')'. Neither analysis correctly predicts the actual phonological form, and by either analysis it ought to be possible to pause within the form. In fact this reflexive is actually a syntactic unit with distinctive phonological and morphosyntactic properties. It lacks the usual and expected juncture voicing and attributive creak, and operates as a unit for most speakers, who are not able to pause as is normally possible between NPs in Burmese. Thus, as further argued below, it is likely that neither modern spelling reflects the original or current structure of the reflexive.

Since ḥokhok alone is ambiguous as shown in (4) and does not specify the subject, a subject may also be present. On the other hand ḥokhok (or literary mimi) alone is most frequently used for generic reflexives. If there is another pronoun, it normally follows the reflexive, as in (2), but a noun may precede or follow, as in (6). Some speakers reject sentences like (6)b with the nominal subject following the ḥokhok. Literary equivalents are similar, but may also have ḥok mimi.ko REFL.body, ḥok mimi.ko.go REFL.body.CRK.OBJ with the object marker, or maximally (including the possessive marker ḥok) ḥok mimi.ko.go REFL.POSS body.CRK.OBJ, all meaning literally 'self's body'. In the latter two, the direct object marker ḥok has induced creaky tone in the preceding syllable and has itself become subject to juncture voicing, unlike the spoken ḥokhok. There is also a non-ambiguous alternative reflexive form with any other pronoun in the first and third slots, with the first in creaky-final (attributive) form. This has object–subject rather than the more unmarked subject–object order (see (7) and (8)). It will be argued below that the ḥokhok form is parallel.

(4) ḥok ḥok jai?tt
self hit.REAL
'Someone hits himself.'

(5) ḥok ḥok ḥok jai?tt
self I hit.REAL
'I hit myself.'

(6) a. ḥok kai?tt
child self bite.REAL

b. ḥok khale
child self bite.REAL
The meaning difference between (6)a and (6)b is one of focus. Of course, (5) and (6) could also be expressed with the \(\text{'Pro}^{\text{CRK}} + \text{\textit{ko}}\) (or other body part noun) + \text{Pro}' construction, as in (7) and (8). (7)a is not ambiguous so an extra pronoun is not necessary, but some speakers prefer to put one in as in (7)b, always pausing after the reflexive, perhaps on the model of sentences like (5). Other speakers reject sentences like (7)b as excessively redundant. Some Rangoon speakers will accept sentences like (7)c with the extra subject pronoun first, if the additional subject pronoun is to be there at all, but for most the preference is for OS order as in (7)b rather than SO order as in (7)c. There are also some speakers, especially from Mandalay, who prefer sentences like (7)c to those like (7)b: for them the tendency towards OS order in reflexives may be less strong. These pronominal reflexives do not occur in literary style. Sentences like (6) with an overt NP subject are in any case not ambiguous, so the \(\text{'Pro}^{\text{CRK}} \text{\textit{ko}}\) \text{Pro}' construction is not necessary to disambiguate them. Many speakers reject the SO order possibility in (8)b, but this is not as unlikely as the corresponding sentence with pronouns only, (7)c. Similarly, some speakers, especially those from Mandalay, may prefer (8)b to (8)a because of a preference for SO, just as they prefer (6)a and (7)c.

(7) a. \(\text{tæn},k\text{ò},\text{tæn}\) \(\text{jai}?\text{të}\)
    \(\text{ICRK}^{\text{REFL.I}}\) \(\text{hit.REAL}\)

b. \(?\text{tæn},k\text{ò},\text{tæn}\) \(\text{tæn}\)
    \(\text{ICRK}^{\text{REFL.I}}\) \(\text{I}\)
    \(\text{hit.REAL}\)

c. \(?\text{tæn}\) \(\text{tæn},k\text{ò},\text{tæn}\) \(\text{jai}?\text{të}\)
    \(\text{ICRK}^{\text{REFL.I}}\) \(\text{hit.REAL}\)

‘I hit myself.’

(8) a. \(\text{θu},k\text{ò},\text{θu}\) \(\text{k\textsuperscript{h}ælë}\)
    \(\text{k\textsuperscript{h}ælë}\) \(\text{kai}?\text{të}\)
    \(\text{he}^{\text{CRK}^{\text{REFL.he}}\text{child}}\) \(\text{bite.REAL}\)

b. \(k\textsuperscript{h}ælë\) \(\text{θu},k\text{ò},\text{θu}\)
    \(\text{he}^{\text{CRK}^{\text{REFL.he}}\text{child}}\) \(\text{bite.REAL}\)

‘The child bites itself.’
This ‘Pro CRK + body part + Pro’ construction occurs with any of the core pronouns listed in the previous section, with or without a plural marker. The pronominal form in first and third slots must be identical apart from the attributive creak on the final syllable of the first, therefore sentences like (9)a, (9)b or (9)c⁶ are grammatical, while sentences like (9)d and (9)e are ungrammatical. Those like (9)f and (9)g are not reflexive: the object marker does show juncture voicing, and there can be a pause before the second pronoun. Some speakers find the reflexive forms with plural marker clumsy, because they can get rather long, hence sentences like (9)c with the plurality marked in the verb but not the reflexive may be preferred. The most frequent body part noun, not suprisingly, is ကို ‘body’ itself, but others do occur, as in (9)h which is otherwise exactly parallel to (8)a and (8)b.

(9) a. ကိုကြားလိုက်သူက ကြားလိုက်သူက ကြားလိုက်သူက
cùdó,ko,cùdó kaiʔ.tè
they.REFL.they bite.REAL
‘They bite themselves.’

b. ကိုကြားလိုက်သူက ကြားလိုက်သူက ကြားလိုက်သူက
cùdó,ko,cùdó kaiʔ.teʔ,dè
they.REFL.they bite.PL.REAL
‘They bite themselves.’

c. ကိုကြားလိုက်သူက ကြားလိုက်သူက
cùu,ko,ču kaiʔ,teʔ,dè
he CRK.REFL.he bite.PL.REAL
‘They bite themselves.’

d. *ကိုကြားလိုက်သူက ကြားလိုက်သူက
cùdó,ko,ču kaiʔ,teʔ,dè
they.REFL.he bite.PL.REAL

e. *ကိုကြားလိုက်သူက ကြားလိုက်သူက
cùu,ko,cùdó kaiʔ,dè
he.REFL.they bite.REAL

f. ကိုကြားလိုက်သူက ကြားလိုက်သူက
cùdó,go,ču kaiʔ,teʔ,dè
they.OBJ he bite.REAL
‘He bites them.’ (fronted, topicalised object)

g. ကိုကြားလိုက်သူက ကြားလိုက်သူက
cùu,go,cùdó kaiʔ,teʔ,dè
he CRK.OBJ they bite.PL.REAL
‘They bite him’ (fronted, topicalised object).

⁶ (6b) and (6c) include the verb marker [teʔ] which indicates multiplicity of the action and therefore usually a plural subject; (6c) shows that the plurality of the subject may be marked on the verb without necessarily being marked on the reflexive or the subject.
These sentences are also perfectly natural with a subject noun, before or after the ‘Pro\textsuperscript{CRRK} + body part + Pro’ construction. Some speakers also allow this construction with kinship terms used in core or extended pronominal senses, as in (10).

As for the kōkōkō construction, literate speakers disagree as to the spelling which should be used for these spoken-style reflexives. It is usual to write the ‘Pro\textsuperscript{CRRK} + kō + Pro’ reflexive with the noun kō ‘body’ rather than the object marker kō in the middle, but some people prefer the latter. The former implies the analysis ‘possessive Pro + ‘body’ + object marker kō’, parallel to the kōkōkōkō spelling of kōkōkō; the latter suggests object Pro in attributive form + object marker kō + Subject Pro, parallel to the kōkōkōkō spelling of kōkōkō. Neither is in accord with the actual phonological form or the unitary nature of this reflexive, within which there is also no possibility of pause.

The kōkōkō and ‘Pro\textsuperscript{CRRK} + body part noun + Pro’ constructions are parallel and both derived from a two-NP object–subject structure. In this the object comprises possessive pronoun (reflexive or non-reflexive) + ‘body’ or other body part NP, and the following subject is an identical non-possessive pronoun. As the two are linked there cannot be a pause between them. This overcomes the problems of lack of voicing of the putative object marker and lack of creak of the form preceding the putative object marker which make both of the spellings of kōkōkō dubious. Effectively, it is here suggested that etymologically and syntactically it ought to be spelled kōkōkōkōkō, with all three components derived from ‘body’.

A further possibility for the form with non-reflexive pronouns eliminates the ambiguity by having both present, as in (11) which is otherwise identical to (7)a above. In this case the object marker voices as would normally be expected, and there is often a pause after the object marker. In effect, this is another argument against the analysis of the medial in ‘Pro\textsuperscript{CRRK} + body part noun + Pro’ as the object marker and thus for the analysis proposed here.
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The literary reflexive also supports this analysis, showing in its direct object form mimi 'self(‘s)’ + go ‘body’ followed optionally, as in (8), by the voiced /go/ form of the object marker ko. As it is unusual in diglossia — the coexistence of the parallel literary and colloquial forms of Burmese — for the syntactic structure as opposed to the forms employed to differ too greatly, this parallelism is another argument for the analysis proposed here. On the other hand, those literate speakers who write the middle ko in both constructions with the object marker ko may have reanalysed their two spoken reflexives to give the structure ‘direct object Pro + object marker + subject Pro’, but they still do not have juncture voicing for the middle ko, reflecting the original structure as retained by others.

The earliest example of a literary reflexive is in the first extant dated inscription, the Myazedi or Rajkumar (lines 14–16), shown in (12):

(12) thuiv’ rajakumar’ maññ’sū pay.mra.sā
tag Rajakumar.named.person dear.wife[‘s].son
mimi kuiv’ muy’.so man’ gri klaññ’ jo ok’mi rakāself’s.body.raise.ATTR king.great.thanks recall.because
‘Since the son of the beloved wife, who was called Rajakumar, called to mind the favours of the king who had nurtured him.’ (Taw Sein 1919:25)

Note that the reflexive is the direct object in a relative clause, showing that reflexivisation for direct objects did continue beyond the clause in which they are subject, even at that early stage. Moreover, unlike modern Burmese, the reflexive in the relative clause is coreferential with the subject of the main clause, which is not the head of the relative clause. See (21b) below for the situation in the modern language.

As is usually the case when modern spoken and written forms differ, the form of the Old Burmese reflexive is the same as the modern literary form,

The full modern literary direct object reflexive is mimi plus, optionally, the possessive marker ti and then, obligatorily, the noun ko ‘body’, optionally followed by the object marker ko in its juncture-voiced form go. Unlike the spoken ko reflexive, mimi may also be pluralised by the addition of to. Naturally, this precedes the various markers to give a maximal mimi.ti ko.go REFL.PL.POSS.body.OBJ ‘our/your/themselves’

Unlike the reflexive, the direct object reciprocal is expressed with the reduplicated deverbal adverb tin.dān, as in (13). Usually, but not obligatorily, the clause also contains the verb marker tā ‘plural/multiple action’, as a reciprocal must involve more than one actor doing something. This plural marker may also occur in reflexives with plural subjects as in (9)b, (9)c and (9)g above.

(13) òudo tin.dān jai.tēthey RECIPI hit.REAL
‘They hit each other.’
As in many other similar cases, the distinction between literary and spoken reflexive forms is gradually breaking down; this usually involves literary forms being brought into occasional spoken use. Indeed, quite a few expressions with ǧiŋ mjiŋ are now heard in more formal spoken Burmese. Conversely, spoken Burmese forms can also filter into informal prose. (14) is the first sentence of the short story ǧiŋ gō TV Sickness published in 1982 by ǧa Tha Ma Sando (cited in Allott 1990).

(14) ǧiŋ ւ Maung Maung Lat.SUBJ ʃGlass.inside.in ʃC.RK.REFL.he carefully

In (14), ǧa Tha Ma Sando is spelt as it would be by most literate Burmese speakers. Despite the presence of a mainly spoken-form reflexive, all the noun and verb markers here have their literary forms.

6 Reflexives in proverbs

One of the most frequent occurrences of the reflexive other than as a direct object is in proverbs. These have the form of (15)

(15) ǧa ʃVerb ʃC.RK.REFL + Noun + ʃVerb ʃC.RK.REFL + Verb

and can appear in literary or spoken style by the addition of the appropriate sentence-final verb markers. The first ǧa kə is a creaked possessive, and the second ǧa kə is a subject pronominal reflexive form which is no longer productive outside proverbs, but survives in a mildly productive capacity in this proverb construction, as well as in some adverbials discussed below. Some examples are seen in (16)–(18):

(16) ǧa ʃVerb ʃC.RK.REFL + Noun + ʃVerb ʃC.RK.REFL + Verb

Rely on one’s own strength.’

(17) ǧa ʃVerb ʃC.RK.REFL + Noun + ʃVerb ʃC.RK.REFL + Verb

‘Find one’s own way.’

(18) ǧa ʃVerb ʃC.RK.REFL + Noun + ʃVerb ʃC.RK.REFL + Verb

‘Mind one’s own business.’
There are some other proverbs with the ကျွန်း ဗြဲ used as a subject instead, such as (19), which also shows SVO order. However, these are unusual and much less productive.

(19) ကျွန်းကြည့် ပြောင်း နေချင်
ကြည့် စိတ် မိန်း
REFL.REFL think bed gold.palace
‘One’s bed may be a golden palace if one thinks so.’

Some other proverbs combine elements in different ways, as in (20), where the second part of the sentence has a particle ပေါ် ‘only’ following the subject ကျွန်း ဗြဲ.

(20) ကျွန်းစိုက် ကျွန်းကြည့် ပြောင်း
စိုက် ဗြဲ သာ
REFL.CRK belly.hurt REFL.only know
‘Only oneself knows one’s own bellyache (problem).’

Alternatively, (20) could be derived from the more normal proverbial (21) from ကျွန်းစိုက် ဗြဲ ‘belly.pleasant’ > ‘happy’, actually a subject–verb construction, broken up by the insertion of the two verbs, နေ ‘hurt’ and ပြောင်း ‘know’.

(21) ကျွန်းစိုက် ကျွန်းစိုက်
စိုက် ဗြဲ
‘REFL.belly REFL.pleasant’
‘Be happy in oneself’

Apart from these syntactically aberrant proverbial reflexives, it has been argued above that the origin of the direct object reflexive, and its current structure in literary and (for most speakers) spoken Burmese, is underlyingly from a possessive pronoun plus the noun ကျွန်း ဗြဲ ‘body’ and then an identical pronoun. It will be seen below that a similar structure can be postulated for reflexives in the ‘ကျွန်း ဗြဲ + Noun’ construction. In both cases a reanalysis has become possible as a result of the grammaticalisation of this noun to an object marker, homophonous with ‘body’ but written differently as ကျွန်း and behaving differently by voicing in close juncture with the preceding nominal element which acquires an attributive creaky tone on its final syllable if it is not already creaky.

As noted above, the literary possessive reflexive is မိမိ ဗိုလ် or, with the literary possessive marker, မိမိ ဗိုလ်၊ plural မိမိ ဗိုလ်၊ မိမိ ဗိုလ်၊. As these already have creaky tone on their final syllables, they can have possessive meaning with or without the marker, as seen in the direct object forms which are optionally without the ။. These are used much more productively with NPs than ကျွန်း ဗြဲ, and may even be heard in spoken Burmese as possessive reflexives. The example in (22) is in a complement clause: the main clause lacks an overt subject but the context suggests ‘we’.

(22) မိမိ ဗိုလ် သားများ ကျင်းမှန်တော်မူ သားများ
မိမိ ဗိုလ် များ ကျင်းမှန်တော်မူ
REFL POSS country good.PURP try.JRR
‘(We) will try to make our (own) country better.’
7 Possessor reflexive

A variety of nouns occur in the construction ‘Thing kò + Noun’. The most frequent examples are the pronominal  ça ha ‘thing’ and the nouns  phàda ‘behalf’ and  ?atwe? ‘sake’. Like the proverbial and adverbial usages above, this is effectively a reflexive, in this case possessive, and therefore with creaky tone. It is exactly paralleled by corresponding non-reflexive forms with other pronouns in possessive form as in (23)b and (23)d below.

(23)  a.  ကောင်းကလေးက ကကာကလေး သင်ကောင်းကလေးကလေး ကကာကလေး ကကာကလေး
    ဗိသာ  kò phàda  ?alou?  lou? tè
    I  REFL.CRK behalf work  do.REAL
    ‘I work for myself.’

    b.  ကောင်းကလေးက ကကာကလေး သင်ကောင်းကလေးကလေး ကကာကလေး ကကာကလေး
    သာ  ဗိသာ  phàda  ?alou?  lou? tè
    He  I.CRK behalf work  do.REAL
    ‘He/she works for me.’

    c.  ကောင်းကလေးက ကကာကလေး သင်ကောင်းကလေးကလေး ကကာကလေး ကကာကလေး
    I  REFL.CRK sake  book.one.CLF  buy.REAL
    ‘I buy myself a book.’

    d.  ကောင်းကလေးက ကကာကလေး သင်ကောင်းကလေးကလေး ကကာကလေး ကကာကလေး
    He  I.CRK sake  book.one.CLF  buy.REAL
    ‘He/she buys a book for me.’

An indirect object or other non-core case can only occur with a reflexive in a construction like this. There is an elaborate four-syllable  phàda  phàda form of  phàda which, unusually for elaborate expressions in Burmese, has the free-form second rather than first.

The literary equivalent of the ‘Thing kò + Noun’ constructions is ‘mimi + Noun’, for example  mimi dò ?atwe? as in (24). 7

    person.PL.SUBJ  REFL.PL.sake  benefit  have.PURP
    ‘In order for people to have some benefit for themselves, …’

7 This is cited in Allott (1990) from a Burmese primary school textbook. It is typical of countries with diglossia that schools teach only the literary (High) style; this of course makes education in the language much more difficult and less useful for nearly half of Burma’s population whose first language is another language or dialect.
8 Subject Intensifier and other Adverbial Reflexives

Apart from the archaic or proverbial usage of ဗို ကတ် alone as a subject pronoun in (19) above, the main reflexive-like form used adverbially after the subject is ဗိုး ကတ် as in (25). This also may occur without a subject pronoun as in (26), in which case it is ambiguous out of context. Some speakers reject sentences like (25) and (26), requiring a subject noun or pronoun to immediately precede ဗိုး ကတ်.

(25) သုံး ကတ် လေး သေခ်ာ
he  self  do.REAL
‘He(~she) does(~did) it himself(~herself).’

(26) ကတ် လေး သေခ်ာ
self  do.REAL
‘Someone does it himself.’

The ဗိုး ကတ် form cannot be pluralised by the addition of the pronoun plural marker ကြော. If plurality is to be indicated at all, it must be elsewhere in the sentence, for example using the verbal marker ကြော as in (27), or plural marking on the subject nominal if that is present. (26) and (27) are likely to be interpreted as referring to first person ‘I’/‘we’, respectively, unless the context shows otherwise.

(27) ကတ် လေး ကြော သေခ်ာ
self  do.PL(V).REAL
‘Some people do it themselves.’

Unlike the object reflexive, which operates as a unit and within which it is not usually possible to pause, a pause is normally required between the subject nominal and ဗိုး ကတ်. Furthermore, like the other reflexives, in sentences like (23) the initial k- does not voice to က. Both of these phonological facts imply that ဗိုး ကတ် is a separate, appositional constituent which immediately follows the subject. It is unusual for the two to be separated by any other constituent.

Like ဗိုး ကတ်, ဗိုး ကတ် can occur in embedded clauses as, for example, in (28)a, but ဗိုး ကတ် must be coreferential with the underlying subject of the clause in which it is situated, not necessarily the subject of the main clause. Likewise, the sentence (28)b with ဗိုး ကတ် in a relative clause is also not ambiguous: it must be coreferential with the subject of the embedded clause, ‘person’, and not the subject of the main clause, ‘I’. This may be related to the fact that only a third person nominal can be the head of a relative clause, as noted below, but see also (12) above which indicates that this constraint did not operate in Old Burmese. (28)c also shows that the constraint on multiple ကတ် object markers in one sentence can extend beyond a single clause.
The literary equivalent of \( \text{कोडाई} \) is \( \text{मिमी कोडाई} \), which quite often occurs without any pronominal form in the sentence. In effect the reflexive \( \text{मिमी} \) is functioning as the head subject pronoun here. Again, unlike the spoken reflexive form \( \text{कोडाई} \), a plural is possible for this literary form: \( \text{मिमी दो कोडाई} \) (REFL.PL..self).

Burmese also uses a number of other adverbial reflexive forms, set out in (29), all containing a reflexive subject pronoun.

(29) Adverbial reflexive forms

<table>
<thead>
<tr>
<th>Basic form</th>
<th>Elaborate form(s)</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{कोडाई} )</td>
<td>( \text{कोडाई कोजा} ) ( \text{कोडाई कोजा हुन} ) ( \text{कोडाई कोडा} )</td>
<td>'oneself', 'in person'</td>
</tr>
<tr>
<td>( \text{कोजा} )</td>
<td>( \text{कोजा कोजा हुन} ) ( \text{कोजा हुन} ) ( \text{कोजा हुन} )</td>
<td>'each person acting separately' (for the same purpose)'</td>
</tr>
<tr>
<td>( \text{कोजा हुन} )</td>
<td>( \text{कोजा हुन} ) ( \text{कोजा हुन} ) ( \text{कोजा हुन} )</td>
<td>'by oneself', 'on a self-help basis'</td>
</tr>
</tbody>
</table>

Most of these reflexive adverbials also have elaborate\(^8\) four-syllable alternatives, set out in (30):

(30) Elaborate derivatives of adverbial reflexive forms

\[ \begin{array}{|c|c|c|}
\hline
\text{Basic form} & \text{Elaborate form(s)} & \text{gloss} \\
\hline
\text{कोडाई} & \text{कोडाई कोजा हुन} & \text{‘oneself’, ‘in person’} \\
\hline
\text{कोजा हुन} & \text{कोजा हुन} & \text{‘each person acting separately’ (for the same purpose)’} \\
\hline
\text{कोजा हुन} & \text{कोजा हुन} & \text{‘by oneself’, ‘on a self-help basis’} \\
\hline
\end{array} \]

\(^8\) This term is due to Matisoff (1973). It refers to formal ABAC or ABCB reduplications corresponding to the usual AB forms. Often the C form is etymologically interesting as it may preserve an otherwise lost cognate.
Interestingly, there is juncture voicing of most unaspirated and some aspirated voiceless stops within these adverbials, unlike the direct object reflexives which do not voice internally.

Instead of an adverbial reflexive, it is occasionally possible to use the direct object reflexive_kokökî in subject position with the meaning 'alone', as in (31)a. Of course there are other ways to express this, such as with a subject intensifier as in (31)b or a non-reflexive quantifier as in (31)c, which are much more frequent and are universally acceptable.

(31) a. 
kokökî self
θwá.dê go.REAL
'Someone goes alone, by himself (~herself).'

b. 
kôda.in self
θwá.dê go.REAL
'Someone goes himself (~herself), in person.'

c. 
ta.jau7.îhî one.CLF.only
θwá.dê go.REAL
'One person goes alone, by himself (~herself).'

Most speakers reject sentences like (31)a when presented in isolation, but they do occur in Burmese discourse.

9 Reflexive in embedded, conjoined and linked clauses

Given the flexibility of order of NPs in a Burmese sentence, embedded clauses may be preceded by the subject of the main clause. For example, an alternative way of interpreting a sentence like (24) above would be to take lu.dô,îi person.PL.SUBj as subject of the top clause which continues after the complement, rather than as subject of the complement itself. On the other hand some types of embedded clauses, such as relative clauses, normally precede their heads, so it is also possible for the antecedent of the reflexive in such an embedded clause to follow its coreferential reflexive, as in the following examples (32)a–d which show the two alternative spoken forms. As in many languages, relative clauses in Burmese are restricted to third person heads, as in (31).

(32) a. 
kokökî self
jai7.tî lu person
hit.REAL ATTR NEG.good.NEG
'The person who hits himself is not good.'
b. The person who hits himself is not good.

c. * themselves buy themselves a book.

d. * I myself buy myself a book.

e. * I myself buy myself a book.
This is parallel to a similar surface constraint on the spoken object marker ko, which normally may only occur on one NP in a clause. However the relevant pronoun or noun still may show the creaked form as if it had the following ko, so this may be a surface deletion. Where two or more such NPs are present, it is usually an animate NP which is marked, as in the following sentences. See also (28)c above which shows that the constraint may also extend over more than one clause of a sentence. This reflects the origin of ko from 'body' and the tendency for it to be used in its object marker function more frequently with animate objects in early inscriptions.

(34) a. teəŋə sàʔouʔ təʔouʔ ðygò pézdè
    I book one.CLF heCRK.OBJ give.REAL
    ‘I gave him(−her) a book.’

b. kəmŋjə teənə,go sàʔouʔ,təʔouʔ ðy pézəzdè
    you ICRK.OBJ book.one.CLF heCRK give.CAUS.REAL
    ‘You make me give him(−her) a book.’

or ‘You make him(−her) give my book.’

In (34)c teənə ICRK is ambiguous between a possessive and a causee meaning as it has no object marker. With a pause after it, the former meaning is more natural; without pause, the possessive meaning is more natural.

The literary reflexive məm also occurs in non-main clauses in the same ways: for an example see sentence (22) above.

10 Conclusion

In summary, the reflexive in Burmese has three forms: the earliest, still used in literary style, is məm. As discussed in Bradley (1995), this may have had a reflexive function in Burmese-Lolo and ultimately derives from a Tibeto-Burman etymon meaning ‘person’. This etymon is hardly attested within Burmese-Lolo in its original nominal meaning.

More recently the noun ko ‘body’, derived from one of the Tibeto-Burman etyma for ‘body’, has grammaticalised in Burmese and become a spoken-style reflexive, and even more recently this latter construction has been used analogically to produce a third reflexive pattern using any pronoun in place of the ko form and a variety of other body part nouns as alternatives to ko. The analogy is confused by the fact that the noun ‘body’ has also become independently and somewhat more opaquely grammaticalised into the object marker ko/go, and this has affected the spelling of the two spoken reflexives.

Burmese reflexives of the kəko and ‘Pro CRK ko Pro’ forms described here are restricted to direct objects coreferential to a subject within the same discourse, but not
necessarily within the same clause or sentence. Since zero anaphora for subjects is very frequent in connected discourse, the subject may be absent: such sentences are ambiguous or generic. In addition, parallel constructions using the same pronominal forms (literary မြင်, spoken ကြည် kò) are used with reflexive subject meaning in some adverbials; there is also a possessive form, used to express indirect objects and other nominal reflexive arguments with a following noun head, such as သင်ကြည် ပြောတာ 'behalf' or သင်ကြည် သော့ 'sake' for indirect objects. The possessive and subject form reflexives are also combined in frozen proverbial expressions.
Syntactic and morphological markers in Burmese: are they really optional?

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1 Preliminaries: the problem

Amongst other things, the languages of South-East Asia are well known for the so-called optionality of certain grammatical morphemes (markers), both syntactic and morphological. Burmese is no exception. In plain terms, this means that derivational and relational morphemes of such languages, to recall Edward Sapir's classification, are used or not used (left out, dropped), simply according to the speaker's 'free will'. If we were to imagine for a moment that in English one were free to choose between alternatives a and b in examples (1), (2) and (3), this would be similar to the 'optionality' which, it is claimed, characterises languages such as Burmese, Chinese, or Thai.

(1) a. I want to eat.  
   b. I want eat.
(2) a. He likes me.  
   b. He likes I.
(3) a. Yesterday I walked a lot.  
   b. Yesterday I walk a lot.

Accepting optionality as fact, understood in this way, entails extremely serious consequences for the theory of grammar applicable to the Asian languages in question, as well as for linguistic theory in general. Let us recall Roman Jakobson's famous maxim that languages differ not so much by the set of meanings they can express but, rather, by the set of meanings they cannot leave unexpressed. In turn, this leads us to think that some meanings are obligatory rather than subject of being expressed or unexpressed at the speaker's 'free will'. It is commonly believed that it is precisely the meanings belonging within the domain of grammar that are obligatory. For instance, speaking in English, one is not obliged to specify (4)a over (4)b, where the word 'fast' is obviously a lexical item.

(4) a. John is crazy about driving cars.  
   b. John is crazy about driving fast cars.

However, one is not equally free to drop, say, -s in (5), where the -s is grammatical material.

---

1 In this short paper, I have sought to keep bibliographical references to a minimum. For references to early contributions (by Henri Maspero and others) see, for instance, Solntseva 1963.
(5) There are many books on the table.

Taken the other way round, such reasoning enables a definition of grammatical morphemes as distinct from lexical ones, namely that grammatical morphemes are such that their use in appropriate contexts is obligatory, and that such morphemes are not subject to deletion or suppression unless one grammatical structure is changed for another.

Certainly the above definition is not sufficiently rigorous (for details see Kassevitch 1977, 1986). But, anyway, some such definition is necessary, for, after all, a language is composed, roughly, of a grammar and the lexicon, and we simply cannot offer any rule or constraint in our description of a language without being able to distinguish lexical items from grammatical ones. Once agreed upon, this definition would lead us to think that, in Southeast Asian languages, there is no grammar at all or, at least, the domain of grammar is much more restricted compared to that of modern Indo-European languages. The situation is reminiscent of another famous problem, also intimately concerned with the scope of grammar in Chinese, Burmese and the like languages, namely that of parts of speech. If parts of speech are defined as declensional and conjugational classes (categories), neither Chinese nor Burmese discern any parts of speech.

Let us, however, return to the traditional line of reasoning explained above to see if it is really as logically flawless as usually believed.

To begin with, there seems to be a subtle shift in emphasis when it comes to drawing consequences from a possible deletion of items, by all standards describable as grammatical morphemes, but suppressible. The Jakobsonian maxim referred to above insists on the inadmissibility of ignoring certain meanings rather than on the inadmissibility of leaving out certain morphemes. Yet the interdependence of meanings and corresponding morphemes is not as strict as it might seem to be. For instance, in (6), there are no subject or direct object markers (as distinct from (7), where both are present), but the meanings of subjecthood and objecthood are obviously preserved in spite of the absent markers.

 lain other words, even if a meaning is obligatory, this does not necessarily presuppose that the morpheme associated with that meaning is equally obligatory. The meaning can be still there, its manifestation being relegated to the word order, word-class specification or even to the context. In our simple examples (6) and (7) above, at least two factors seem to be at play to preserve the syntactic meanings in the absence of the syntactic markers. First is word order: on which special comment is hardly necessary. Second, the set of arguments associated with the verb pʰaʔ ‘read’ must include one with the semantic
(thematic) role of Agent and the other one with that of Patient (or Theme, depending on the framework adopted). If we further take into account that in transitive constructions (and both (6) and (7) are undoubtedly transitive), the Agent is syntactically the Subject, we have no option but to admit that ‘Maung Ba’ has to be interpreted as the grammatical (syntactic) Subject, whatever its markers, if any. The same reasoning tells us that ‘book’ in the same examples should be recognised as the grammatical (syntactic) Object, irrespective of the lack of any overt markers.

Yet the problems with optionality are not yet explained away by the analysis attempted above. In order to place into a broader theoretical context one of the most important aspects of the problem now under scrutiny, one could say that we are faced here with a situation where speakers are ‘allowed’ to adjust the level of redundancy of the text. After all, in the Latin phrase in (8) the masculine nominative singular adjectival ending -us is also redundant, but speakers of Latin were not ‘allowed’ to make an utterance such as (8) ‘less redundant’ by omitting -us.

(8) puer robustus currit
    boy strong-[masculine/nominative/singular] runs
    ‘The strong boy runs.’

One more aspect not yet considered in our analysis is concerned with a theoretically possible interpretation of such forms as Maung Ba in (6) as unmarked. As is well known, unmarked forms are special precisely in that they can be used in place of the marked member of the opposition, at least in some contexts. For instance, in the singular–plural opposition man – men, the first member is unmarked. In some contexts, we can see that the marked form can be replaced by the unmarked one, as in (9) and (10):

(9) Unlike animals, men are endowed with the faculty of language.
(10) Unlike animals, man is endowed with the faculty of language.

Last but not least, one cannot be absolutely sure that deletion of markers like that in (6) vs. (7) can be claimed to produce a perfect equivalent of the original sentence. When taken in isolation, many utterances can be manipulated quite freely: nobody would object if, instead of (11), one produced (12), if the two sentences are taken outside of any context:

(11) They sing quite well.
(12) They are singing quite well.

The factors mentioned above can be summarized as follows:

(i) the possibility of limiting redundancy as a typological feature of Burmese (and other languages) vs. no possibility of limiting redundancy, normally typical of Indo-European languages;
(ii) the possibility of designating marker-free words as unmarked in Burmese;
(iii) context-free analysis of the marker deletion processes vs. context-dependent analysis.

The first two points are mostly theoretical, and we shall return to them later. The third is largely empirical, since the question of how important it is for a syntactic or morphological marker to rely on context is presumably testable in the course of an experiment, where
native speakers of the language can be asked to assess the acceptability of texts transformed by the experimenter.

2 Experimental design and main results

These were the considerations which gave rise to a set of experiments, where subjects were asked to insert missing words or syllables, if any, and, vice versa, to delete words or syllables, if the latter are felt unnecessary or even put wrongly.

The text used in the experiment was a 1000-syllable excerpt from the novel Prison and Humans and six folk tales, each about 1,500 syllables long, by Ludu U Hla. The experimental data were collected by Katia Manicheva and Esuna Dugarova. In the first experiment, the text was presented to the subjects after certain words had been deleted: a sample of the text is shown in (13), where the grammatical markers which were deleted are underlined.

(13)  
\[
\text{c , , c c} \quad \text{§chroGro:ro} \quad \text{tb£1.kaJe.g.s} \quad \text{chick.SUBJ} \quad \text{lead.REAL.ATTR} \quad \text{hero.group.TOPIC but} \quad \text{cat.live.REAL.ATTR} \\
\text{?ein.go} \quad \text{na.dagau.lau.mà} \quad \text{jáu.tq} \quad \text{te?i.kalé.ga} \quad \text{house.to} \quad \text{night.midnight.about.at} \quad \text{arrive.when} \quad \text{chick.SUBJ} \\
\text{êabwe.go} \quad \text{èin.dagá.wà.mà} \quad \text{saun.bo.nejá} \quad \text{te?i.thá.dè} \quad \text{pestle.OBJ} \quad \text{house.door.opening.in} \quad \text{guard.PURP.place place.set.REAL} \\
\text{mjé.go.dz} \quad \text{jè.7ò.dè.mà} \quad \text{win.bí} \quad \text{k’hwe.nè.zè.dè} \quad \text{snake.OBJ but} \quad \text{water.pot.in} \quad \text{enter.SUBORD curl_up.CONT.CAUS.REAL} \\
\text{‘At about midnight the gang of smart guys led by the chick reached the wild-cat house, and the chick placed the pestle to guard the gate to watch the entrance, while the snake was made to creep into the water jug and to stay there curled’}. \\
\]

In another experiment, grammatical markers were introduced into a text in places where they had not originally been present. An sample text is shown in (14), with the ‘new’ marker inserted in the text underlined.

(14)  
\[
\text{thujegáun.te.sy.hà} \quad \text{ka.bwe.de.gò} \quad \text{shí.n.bí} \quad \text{pjo.tea.dè} \quad \text{hero.one.group.TOPIC} \quad \text{dance.event.big.to organise.SUBORD enjoy.PL.REAL} \\
\text{‘The heroes organised a dance and enjoyed themselves.’} \\
\]

In the experimental design reported in this paper, we tested the degree of optionality of syntactic markers like òò, òò kà, òò hà, òò mà and the like. The subjects were fourteen
native speakers of Burmese, aged between 25 and 40, all postgraduates of various technical universities, who took part in the experiment voluntarily.

In this paper, I report the data concerning three syntactic markers, namely \( \infty \) k₃, \( \omega \) h₄ and \( \sigma \) k₄, whose primary function is to identify the subject, topic and object of the sentence.³

In our experimental texts, 29 instances of \( \infty \) k₃ were identified and then deleted from the test texts presented to our subjects, who were then asked to correct the text. The subjects had no way of knowing which places in the text the markers had been removed from. The results were as follows: 63 percent of the markers removed were restored by the subjects to their original positions, and 33 percent of the ‘blanks’ — places from where \( \infty \) k₃ had been removed — were left unfilled. In the remaining 4 percent of cases, subjects inserted some marker other than \( \infty \) k₃.

The conclusion drawn is that the absence or presence of \( \infty \) k₃ is not as arbitrary as might have been expected. In fact, the markers are neither obligatory, nor optional. This claim is further substantiated by closer scrutiny of the individual positional and structural subtypes of \( \infty \) k₃. At least two positional-cum-structural contexts can be singled out where our subjects were absolutely unanimous in restoring the marker. These are as follows:

(a) speaker-indicating \( \infty \) k₃, where the NP containing the speaker and the verb or speaking or uttering are disconnected by the clause containing the directly quoted speech itself, such as the \( \infty \) k₃ underlined in (15);

(b) ‘long NP’-marking \( \infty \) k₃, underlined in (16), where a complex NP is made ‘long’ due to one or more modifiers, especially relative clauses.

(15) điʔaʔak₃a \( \tau \)kal₄,ga \( \theta \)am₃,go \( \theta \)aʔ,teʔ,caun,go
this.time chick.SUBJ I.POSS.mother.OBJ kill.REAL.ATTR.cat.OBJ

gal₃g₃z₃a,teb₄,bo \( \theta \)w₄,ma₄,lo \( \theta \)u₀j₃g₄aun,d₃wₑ \lo₄,b₄,dₑ.
revenge.wreak.PURP go.will.SUBORD hero.PL need.POL.REAL

d₃l₃n laiʔ,m₄in,ji₃n laiʔ,p₄₃,lo \( \theta \)i₃,de
you follow.can.if follow.POL.QUOT say.REAL

‘At that the chick said: “I set out to take revenge over the wild cat who has murdered my mother, so I need people to take action. If you can follow me, just follow”’.

² A second experimental design not reported here tested the exchangeability of markers such as \( \sigma \) pl₄, \( \omega \) j₃wₑ, \( \omega \)q₃b₄, \( \infty \) k₃ and similar, using eight subjects.

³ I won’t go into discussion of the important problems concerning the markers \( \infty \) k₃ and \( \omega \) h₄ in Burmese. Leaving aside relatively ‘easy’ questions, such as the polyfunctionality of \( \infty \) k₃ and its appropriateness in both formal and colloquial styles, an adequate interpretation of the markers under study would be crucial for categorising Burmese as either a subject-prominent or a topic-prominent language (or as a mixed type).
In some other cases, not examined further here, the situation was less clear. The reactions of our subjects were less than 100 percent unanimous, although still very substantially tending towards non-acceptance of the 'blanks' where the Ɦ Ɦ had been removed from.

It should be added that the converse experiment, where potentially possible but 'missing' markers were artificially introduced, led mostly to the acceptance of the sentences transformed in that way. We can generalise the findings with the statement that over-differentiation of grammatical (syntactic) functions is more tolerated than an under-differentiation.

Another marker tested, as mentioned above, was Ɦ Ɦ Ɦ. There were 22 occurrences of this marker in the test texts. Once deleted, the 22 instances of Ɦ Ɦ Ɦ were found to be restored by the same set of subjects in 25 percent of cases, while in 39 percent of cases the blanks were left unfilled. In 36 percent of cases, the position originally occupied by Ɦ Ɦ Ɦ was filled instead with Ɦ Ɦ, which shows that the difference between the two is sometimes sufficiently blurred to permit a degree of interchangeability. We might hypothesise that Ɦ Ɦ marks the Topic, while Ɦ Ɦ indicates the grammatical Subject, which would explain the different behaviour of the two, but this is a topic to be discussed separately.

Without giving exact data, it can be said that practically all the features revealed in the experiments on Ɦ Ɦ were observed with Ɦ Ɦ also, with the obvious exception of the speaker-marking function, which does not apply to Ɦ Ɦ. This similarity between Ɦ Ɦ and Ɦ Ɦ seems natural, since these two markers form the structural core of a transitive verb sentence. Leaving aside the difficult question of the difference between Ɦ Ɦ and Ɦ Ɦ, the situation could be reduced to the formula in (17) which reads, 'in terms of structural “strength”, Ɦ Ɦ and Ɦ Ɦ exhibit equal strength or resistance to being dropped, while Ɦ Ɦ is less resistant.'

\[
(\text{17}) \quad (\text{ Ɦ Ɦ} = \text{ Ɦ Ɦ} > \text{ Ɦ Ɦ})
\]

In other words, optionality can be weighted. In the terms of these experiments, optionality might be said to range from 0 to 100 percent, though we are not yet in a position to compute the actual value of optionality even for most typical cases. However, our experimental data seem to show that this is generally feasible. The language mechanism is no less probabilistic than deterministic, and our case is one more illustration of the above point. In the above presentation I have not analysed the data pertaining to the 'agreement coefficient' demonstrated by the subjects. Not only do individual entries of the markers differ with respect to being restorable or not, individual subjects also tend to display different sensitivity to the lack of markers. Leaving aside the 100 percent restorable entries, each individual entry was restored by three to nine subjects out of the total fourteen.
3 Optionality and discourse: mark-drop and pro-drop

We must admit, at the same time, that the very fact of optionality, however partial it may be, and regardless of the factors contraining it, makes Burmese and other languages like Chinese or Thai typologically special.

An obvious parallel that readily comes to mind (although, to the best of my knowledge, it has not been explored yet in the relevant literature) is the well known distinction between so called pro-drop and non-pro-drop languages. Pro-drop languages tend to omit pronominal and other grammatical Subjects, while the non-pro-drop languages do not. Compare the Russian *у́ди иду* 'I go', where the pronoun *я* 'I' is freely dropped, and its English equivalent, where the Subject cannot be omitted. If I might venture to coin a new term, I would describe Burmese and other languages of the same typological class as mark-drop or marker-dropping languages.

An important difference between the pro-drop and the proposed mark-drop typological classes lies, of course, in that the former refers to a special behaviour of lexical items, while the latter refers to grammatical ones. It could be argued, however, that the items typically dropped in pro-drop languages are pronouns, which are the lexical class which most closely resembles grammatical markers in terms of both functional and semantic features. After all, diachronically, pronouns are often subject to cliticisation, which, in turn, may give rise to affixation and other grammatical devices.

Since it is unconstrained and unbound, optionality does seem to enlarge the set of candidate constructions accessible to the speaker as compared with non-mark-drop languages, for the latter normally rule out any element of free choice where it comes to grammatical structures.

4 Optionality and redundancy

Now let us come back to the other theoretical issues briefly delineated at the beginning of this paper.

With regard to the question of whether it is reasonable to claim that Burmese and other languages ('mark-drop' languages) make it possible for speakers to control the degree of redundancy of a text, we have to answer yes, but not without certain reservations.

At this point, it seems appropriate to introduce one more subset of our experimental data, this time concerning two morphological markers နို့ and စို့, both plural markers, the former for nouns, the latter marking the plurality of the subject of verbs. Without analysing the data in unnecessary detail, we can state simply that both these markers were restored by the subjects in only 25 percent of the total cases where the markers had been removed.

It is clear that in any language, whenever we encounter an utterance like (18), the plural suffix *-s* is redundant, since the same information about plurality is encoded thrice: once lexically, using the word *many*, and twice grammatically, by the plural suffix *-s* on the noun and the plural form *are* of the auxiliary verb *to be*. Yet English speakers are not allowed to drop plural suffixes like *-s*, nor to violate the rules of grammatical agreement by using *is* instead of *are*. Although redundant, the markers are kept obligatory.

(18) Many books are quite useless.
Could it be said that redundancy control is just another term for optionality, that the two terms refer to the same phenomenon seen from slightly different perspectives? A possible answer to this question may be found by conceding that these two phenomena, optionality and degree of redundancy — and, consequently, the control of redundancy by the speaker — overlap rather than coinciding exactly. Redundancy, as it is generally understood, presupposes that the information INF is already there, coded at least once by a lexical or grammatical item X, and an item Y is used to duplicate the same information INF, presumably in order to make the exchange of information flow more reliably, robust and resistant to noise, etc. Redundancy, thus, operates within the context of the text and language. In contrast, optionality embraces both linguistic devices and paralinguistic resources to lower the redundancy level of the text, so long as this does not lead to communicative failure.

In the context of Burmese, what we mean by paralinguistic resources is that default knowledge is allowed to be a player in the 'language game' (Wittgenstein 1953) in that within an individual speech act, shared background information, easily deducible information, etc., may be equated functionally with information encoded by means of linguistic devices.

Put another way, redundancy involves only linguistic devices, it is more often than not obligatory, and it adds information to the text (albeit old information), thus when the level of redundancy is high, it increases the density of information flow. Optionality, on the other hand, involves all accessible sources of information, it is intrinsically not obligatory, and it subtracts information from the text, thus decreasing the density of information flow.

It is by no means coincidental that mark-drop languages constitute, in effect, a subset of pro-drop languages: every mark-drop language is also a pro-drop language, although the reverse does not hold true. In fact both phenomena, pro-drop and mark-drop, seem to be triggered by broadly similar factors. At least in part, these factors transcend the scope of language (and, hence, linguistics) reaching into the domain of culture. It is first of all the high level of shared background knowledge which makes it possible for speakers to omit items that can be readily and accurately restored by relying on information available both within and outside the text. A high level of shared background knowledge and a tendency to structure a discourse along the lines of a face-to-face communication are recognised as distinctive features of traditional culture societies (see Kassevitch 1997). In other words, formal properties of the Burmese (or Chinese, for that matter) text such as the tendency to drop both Subject and Object markers, and Subjects themselves, are culture-dependent rather than grammar-dependent.

5 Optionality and markedness

Finally, returning to the issue of markedness, let us restate the question: Can we argue that, by dropping a marker, the speaker actually substitutes a marked form for its unmarked counterpart? To answer this question, we first establish that we are dealing with a binary opposition, simply because it is this kind of opposition that gives rise to the marked-unmarked relationship. I do not think that a NP with a marker and and NP with no marker make a real opposition, let alone a binary opposition, the most typical of all kinds of grammatical oppositions. Take, for instance, the contrasting phrases in (19). This does not seem to be a morphological paradigm, which could be organised by a set of oppositions. It
looks more like a set of postpositional phrases (PPs), comparable to the English translations of these phrases. If this is really the case, the theory of markedness is not applicable to interpret the phenomenon of mark-drop.

(19) 

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<td>house</td>
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‘house’ ‘house (as topic)’ ‘to the house’ ‘from the house’ ‘in the house’

The situation is slightly different where it comes to the subtype exemplified above by the Plurality markers. In this case, it appears that the pair of phrases in (20) display a ‘regular’ morphological opposition and, hence, a ‘regular’ morphological paradigm.

(20) 

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<td>house</td>
<td>house.PL</td>
<td>‘house’ ‘houses’</td>
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Yet, here too, the situation is not that simple. There are good reasons to argue that bare, unaffixed nouns simply lie outside any morphological opposition; such nouns are just lexical items which lack any grammatical information pertaining to number. However, lacking information about number is not the same a being unmarked for number. The former means that the feature [± plural] is not applicable to the noun in question, while the latter presupposes that the noun is characterized by both values of this feature, the positive value [+plural] and the negative [−plural]. Burmese nouns are simply devoid of any information about number. When plural markers  twè or mjá are introduced, these are on an equal footing with any other specifier like kalé ‘small’ or tâi ‘big’; mà ‘female’ or phó ‘male’ (if applicable), as in (21).

(21) 

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<td>chicken</td>
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</tbody>
</table>

Taking another example, we could argue that, for instance, that in English ‘dog’ is [± feminine], that is to say unmarked for gender, while ‘bitch’ is [+feminine], i.e. marked for gender. To sum up, the notion of markedness does not seem to present an efficient theoretical framework for explaining the phenomena of mark-drop in Burmese.

6 Conclusions

Now, let us draw some conclusions – preliminary in that they are subject to being proven or rejected by further experimental work on a larger corpus of data.

The syntactic markers of Burmese (at least là kà, là hà and là kò) are not optional in the sense that the choice between their absence or presence is not purely stylistic, made
according to the speaker’s ‘free will’. There are a number of structural parameters that constrain or license dropping of the markers.

On the other hand, the markers are optional in the sense that even in the same structural position, there may be more than just one acceptable option to drop the marker or use it. Burmese, therefore, can be classified as a ‘mark-drop’, a category which encompasses also Chinese, Thai, and other East and South East Asian languages.

The proposed mark-drop characterisation is found to be correlated with the pro-drop categorisation. Both properties may be partly culturally determined.

Morphological markers in Burmese (at least ကြား ဗား and ကြို ဗား) are not optional at all. Although the observational adequacy principle would be satisfied, if one states simply that morphological markers are used as irregularly as the syntactic ones (in fact, it is not exactly the case in terms of probability of occurrence, see above), this does not do full justice to the deep structural features of these markers. The contrast between marker-free and marker-present nouns does not constitute a formal opposition which would be a regular paradigm, since the marker-free noun is simply devoid of any grammatical information, except for that implicitly defining its part-of-speech affiliation. *Mutatis mutandis* the same could be repeated with reference to the verb plural marker ကြို ဗား.

The lack of oppositions and paradigms also explains why the principle of markedness does not seem to be an appropriate theoretical tool for explaining the phenomena traditionally discussed under the label of ‘optionality’.

The verb ‘give’ as a causativiser in colloquial Burmese

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1 Introduction

It is widely known that many lexical verbs are also used as functional words in Burmese. Used as functional words, some of these verbs precede the main verb, and some follow. A few verbs can both precede and follow the main verb. For example, when preceding the main verb, the verb စီးစီး ‘look’ has an adverbial function meaning something like ‘with discretion, carefully’; when it follows the head-verb, it means ‘try to [verb]’.

The verb စီး ‘give’ also has functional usages. Following the head verb, its function is benefactive (or applicative), as in (1), or else it denotes the ‘destination of action’, as in (2) (the opposite direction, with စီး ‘take’ is shown in (3)). It can also have a transitive/causative meaning, as in (4).

(1) စီးစီး ကြည်ပြောက်/စီး/ဖြူ သုံးစားခြင်း
   ကြည်စီး ကြည်စီး စီးစီး စီးစီး
   သင်ခြင်း ကျောင်း/ကြည်စီး စီးစီး စီးစီး စီးစီး
   I will read it for/on behalf of/to you.

(2) စီးစီး ကြည်ပြောက်/စီး/ဖြူ သုံးစားခြင်း
   ကြည်စီး ကြည်စီး စီးစီး စီးစီး
   သင်ခြင်း ကြည်စီး စီးစီး စီးစီး စီးစီး
   His father teaches English at university.

(3) စီးစီး ကြည်ပြောက်/စီး/ဖြူ သုံးစားခြင်း
   ကြည်စီး ကြည်စီး စီးစီး စီးစီး
   သင်ခြင်း ကြည်စီး စီးစီး စီးစီး စီးစီး
   His daughter learns English at university.

1 I would like to thank to Mr Kato, Associate Professor at Osaka University of Foreign Studies, who brought this phenomenon to my attention. I also thank U Khin Aye, Professor in the Department of Myanmar Language and Literature at Yangon University, and other teachers there. While I was studying at Yangon University, they always supported me and put up with my endless questioning.
In the examples (1)–(4) in functional use, the verb ဂျီ ပီ ‘give’ always follows the head verb, having one of the three meanings outlined above. However, I will describe here a further usage of ဂျီ ပီ, preceding the head verb and with ‘causative’ meaning, as in (5).

(5) ဂျီ ပီ ဝင်တယ်
ရု. ပီ ဝင်တယ်
‘He/she was allowed in.’

There is some evidence that this is a recent phenomenon, reported, to my knowledge, for the first time by Kato (1998). I can find no published references to ဂျီ ပီ which pre-date this. Soe (1999) does not list ဂျီ ပီ as a pre-head versatile causativiser, again suggesting that the grammaticalisation of causative ဂျီ ပီ is recent. I have been told by older speakers of Burmese that this construction is not pure Burmese, but despite this, I want to describe it for two reasons. Firstly, it seems that many people have already accepted the causative ဂျီ ပီ construction and make habitual use of it – perhaps unconsciously. Secondly, it is possible that causative ဂျီ ပီ is an example of recent grammaticalisation in Burmese. In this short article, I will provide various examples of causative ဂျီ ပီ, and consider its syntactic and semantic features.

2 Predicate structure

Before proceeding further, I will outline briefly the structure of verbal predicates in Burmese. Okell (1969) regards all analysable (complex) verbs as compounds, which he classifies as ordinary, pre-verb and auxiliary compounds (Okell 1969:24–25). Okell’s classification and terminology will be adopted in this article. According to Okell and Allott (2001), causative ဂျီ ပီ is common pre-verb. As for Okell’s definition, pre-verb compounds can be paraphrased with complex sentences using the subordinate clause marker [9: ပီ, as in (6) and (7). I will refer to verbs separated from the preceding causative ဂျီ ပီ as main ‘head’ verbs, without attempting a precise definition of ‘head’.

(6) ဂျီ လျာသာ
ရု.လျာ လျာသာ
‘(He) continues to do.’

(7) ဂျီ ပီ လျာသာ
ရု.ပီ လျာသာ
‘(He) continues to do.’
3 Examples of causative ပြိုင်အုပ်

In this section, I will list some examples of causative ပြိုင်အုပ် I have found. First, examples from Okell and Allott (2001:120–121).

(8) ဗီဒီးယာဉ်ကို ပြိုင်အုပ် ကြပ်ကြပ်လိုက်သောစိတ်
   takha-ta-lé.d₄  kawnlé.g₄  pé.máun.laiʔ.p₄.l₄
   sometimes but boy.OBJ  pe.drive.just.POL.Q
   ‘Why don’t you just let the boy drive sometimes?’

(9) ကြပ်ကြပ်လိုက်သောစိတ်ကို ပြိုင်အုပ်
   ta.hiʔ.tʰeʔ  pé.maalouʔ.t₄.b₄
   one.year.then  pe.NEG.do.anymore.NEG
   ‘[We] don’t allow [them] to work for more than one year.’

(10) ပြိုင်အုပ် ပြိုင်အုပ်ကို
   maun.lé.g₄  ma.pe.kain.nɡ
   younger-brother.obj  NEG.pe.hold.NEG/IMP
   ‘Don’t let your younger brother touch it.’

(11) ကြပ်ကြပ်လိုက်သောစိတ်ကို ပြိုင်အုပ်
   th.biʔ.sʰi  så.g₄  th.biʔaʔ  ma.jé.bu.nɔ  di.sà.g₄.ɡ₄.ɡ₄
   s/he.place letter.OBJ separately  NEG.write.NEG.OK? this.letter.only
   pe.phaʔ.laiʔ.p₄
   pe.read.just.POL
   ‘I won’t write separately to her, all right? Would you please just have her read
   this letter?’

(12) ပြိုင်အုပ် ပြိုင်အုပ်ကို
   seʔ.bëin  ma.pe.si.dzin.bu
   bicycle  NEG.pe.ride.want.NEG
   ‘I don’t want to let you ride my bike.’

The following examples were collected in Yangon from 2000 to 2002. They are described further in Okano (2002:139–140).

(13) ကြပ်ကြပ်လိုက်သောစိတ်ကို ပြိုင်အုပ်
   thàng.g₄  diʔ.imé  pé.thoùn.d₄
   I.OBJ this.e-mail pe.use.REAL
   ‘They let me use this e-mail [account].’

(14) ပြိုင်အုပ် ပြိုင်အုပ်ကို
   mahabändula.pàndan.d₄.g₄  pé.win.mè  thìn.d₄
   Maha Bandula.park.inside.to pe.enter.IRR think.REAL
   ‘I think that [they] will allow us to go into Maha Bandula Park.’
The example (16)a is an utterance which was subsequently corrected to (16)b. Of course, we could produce a forced parsing of (16a) ‘Sujata ordered a hundred cows to give and to eat licorice’, though of course such an interpretation would be rejected as meaningless in any context, and so the only plausible interpretation is that of (16b). This pair of sentences sheds light on the grammaticalisation in progress.

(17), an utterance I actually heard, is not acceptable to all Burmese speakers. Although it follows the syntactic pattern of causative စေပ်, it is unacceptable possibly because there exists a bimorphemic formal register verb စေပ်ပြော with the meaning ‘send’, which is applicable to things rather than people.

Although we may encounter causative စေပ် frequently in spoken Burmese, it is less common in written forms of the language. The following examples (18) and (19) are taken from the novel စိုးဖွင့်ယား ကိုးကျစ် နန်းတိုင် ၎င်းအိုးများ မိန်းနှင့် ချည်များ ‘If it’s real chilli, then it will be hot by Maung Thara စိုးဖွင့်ယား, written in 1982 in colloquial style Burmese.
The verb 'give' as a causativiser in colloquial Burmese

(19) kəʊnɡʊn.pəʊ.jə.jin .ManyToMany.ADVERB.tell.must.iff  son.two.CLF.OBJ football.even pə.mə.gazá.ù
complete.ADV.REDP.谷爱凌.tell.must.iff son.two.CLF.OBJ football.even pə.NEG.play.NEG

'To tell the whole story, he didn’t even allow his two sons to play football.' (p. 29)

Another example (20) in print is an essay by Kan Chun (1997), also written in colloquial style.

(20) kə ɗi.sə̃̄.āunbá.go ɗəm.jɛ lʊu.ɭɪ.ɓa.dwe.go.ɓə pə.pəʔa.ɭaiʔ.ɭa.ʔən
so this.article.OBJ daughter.POSS adult.parent.PL.OBJ.also pə.read.just.POL.further

'So, have your your parents read [my] article as well, girls.'

Causative ɡɔ: pə seems to be restricted mainly to spoken Burmese, since I have found only a very few examples of it in print, and no examples of it in literary style Burmese, though Okell and Allott (2001:120) do list a formal, literary Burmese entry for causative ɡɔ: pə.

4 Syntactic features of causative ɡɔ: pə

I will now consider the syntactic features of the causative ɡɔ: pə construction. An analysis of the syntactic features of complex predicates in Burmese must take account of

- constituent order;
- negation;
- the possibility of paraphrasing the predicate by substituting a complex sentence using some dependent clause marker;
- ellipsis.

As mentioned above, causative ɡɔ: pə precedes another head verb. This position is syntactically highly independent. As with other pre-verbs, normally the negative ʔ mə prefixes not to causative ɡɔ: pə but to the head verb. Also, causative ɡɔ: pə can be paraphrased to form a complex sentence by using the dependent marker ɓə pí (see example (7) above). These phenomena are re-examined here.

In fact, the negative particle ʔ mə sometime precedes both causative ɡɔ: pə and the head verb. This is noted by Okell and Allott (2001), who provide some examples, (10) and (12) above. This construction may, however, not be acceptable for all speakers. It seems that speakers from Mon state do not accept sentences negated in this way (more in section 6 below on the intuition of Burmese speakers from Mon state).

A paraphrased causative ɡɔ: pə construction is usually considered grammatical and acceptable. However, they are difficult to find in spontaneous contexts. I was unable to obtain any examples of complex paraphrasings of causative ɡɔ: pə despite many attempts to elicit them from informants. Again, it seems that speakers from Mon State find such constructions completely unacceptable. I conclude that the construction is grammatically possible, but not used.

As for ellipsis, Okell (1969:30) notes that 'questions containing [complex predicates containing pre-verbs] are sometimes (but not invariably) answered with the second
member only.’ He adds that this feature distinguishes pre-verbs from ordinary compounds. However, in one-word answers to questions containing causative go: pé constructions, it is not the pre-verb go: pé which is ellided, but the other verb. Compare (21) and (22):

(21)  
```  
continue.do.IRR.Q
Will you carry on doing [it]?  
Yes, I will.  
```

(22)  
```  
Allow me to do [it]?  
Yes, I will.  
```

We can account for this apparent anomaly by noting that the causativiser cannot be ellided because it changes valency. In causative constructions, the subject of the embedded clause (the subject of V) is assigned the object case marker o? kò and another noun appears as the subject of the matrix clause. If go: pé is omitted, the sentence would become ungrammatical because the matrix predicate no longer satisfies its argument structure.

5 Semantics of causative go: pé

Burmese has, traditionally, two grammatical forms to express causative meaning. These are go: sè and kʰain. These two are, of course, different not only in meaning but also in syntactic category. Here we shall consider only their meanings.

Okano (1994) described the characteristics of go: sè as follows: if the subject NP is animate, it does not intentionally obstruct the occurrence of the event expressed by the verb; if the subject NP is inanimate, it is the cause of the occurrence of the event expressed by V.

If the subject of the verbal predicate containing go: sè is animate – typically human – it is difficult to say that the event is caused directly or intentionally by the subject. Moreover, in modern use go: sè is not used alone, but rather is usually accompanied by other modal auxiliaries such as tè kʰain ‘want’, or ja ‘must’. Okell and Allott (2001:120) note that [verb]go: sè is being superseded in colloquial Burmese by go: pé [verb] and by [verb]-kʰwij.pju ‘give someone permission to [verb]’. Note that both go: pé [verb] and [verb]-kʰwij.pju typically have human subjects. If the subject is inanimate, then the verbal predicate is more transitive rather than causative.

In the case of [verb]-kʰain causatives, the subject intentionally approaches the causee to get something done. Here kʰain preserves much of its full lexical meaning ‘order’ or ‘put to work’ – usually by word of mouth. In other words, kʰain is a compulsive causative, while go: sè implies approval.

There is a further difference between go: sè and kʰain. When it occurs with realis verb sentence marker go: tè, go: sè entails realisation of the event expressed by the verb, while V, while kʰain does not.

The causative go: pé construction is more similar in meaning to go: sè than to kʰain. Both [verb] go: sè and go: pé [verb] express approval or permission. Basically, both
express that the causee – the subject of the main verb – has the desire to do something and the causer – the subject of ကြား ပြော – gives the causee permission to carry out the action. Of course this applies only when both causee and causer are human or animate. Additionally, causative ကြား ပြော also entails realisation of the event.

6 Additional implication of ကြား ပြော causative

Sometimes the causative ကြား ပြော construction implies its original meaning ‘give’. Consider examples (11), (16) and (20). The predicates in these examples can be interpreted as ‘give and [verb]’. For example, (20) could be translated ‘please give your parents this article and have them read it.’ In a few cases, the accomplishment of the event denoted by the verb presupposes an act of giving. For example, if someone wants to read a book you possess, he or she must ask for the book from you before reading it. The temporal order of the occurrence of the two events — in this case giving and reading — corresponds to the order of ကြား ပြော and the main verb in a causative ကြား ပြော construction. Is such a correspondence inevitable? It may be certain that the implication of giving something in causative ကြား ပြော construction is caused by the constituent order of the verbal predicate.

Moreover, when causative ကြား ပြော implies actually giving something, the meaning will become close to that of a causative ကြည်း လေး construction. The reason for this is that there is a sense that the subject actively approaches the causee to have some action accomplished — the compulsive meaning referred to above.

7 Mon influence?

The causative ကြား ပြော construction may have been influenced by the Burmese spoken in Mawlamyine (Moulmein), in Mon State. An expression of this kind is mentioned in the Burmese–Japanese Dictionary (Harada and Ohno 1979:262): ကြား ပြော ယိုအို ‘give.hit’ is glossed as ‘to allow to beat; Mawlamyine dialect, the speech of Mon people’. One of my informants, U Hla Maung, a 66-year-old from Mon State, told me the following when I questioned him on this point:

‘In the 1970s and early 1980s, many necessities were smuggled over the Thai border into Mon state. Mon merchants carried these necessities to Yangon and they opened a black market at Seingyun, near today’s Mingalar market. This black market was very crowded because it was almost the only way to obtain daily necessaries in Yangon.’

It is suggested that Burmese may have borrowed the causative ကြား ပြော construction from Mawlamyine dialect Burmese, itself influenced by Mon, where the verb ကြည်း လေး ‘give’ is a productive causativiser. If this situation is true, then this construction may have begun to appear in Yangon Burmese during the 1970s, before the 1982 stories by Maung Thara quoted above.

Is the Mon causative the source of the Burmese causative ကြား ပြော construction? Did the Mon construction directly influence Burmese? In my opinion, this is unlikely: Burmese speakers have associated with Mon speakers for at least a thousand years, which means it is difficult to explain why causative ကြား ပြော exerted its influence over Burmese only in the 1980s. One might speculate that Mon affected the Mawlamyine dialect of Burmese, and that it was this, rather than Mon, which influenced Yangon Burmese.
8 Conclusion

The causative ⁴⁰[pé] construction is a recent development in colloquial Burmese. Causative ⁴⁰[pé] occurs preceding the main verb in a verb phrase, and is syntactically somewhat independent. Unlike other pre-verbs, causative ⁴⁰[pé] cannot be elided in any context; this suggests that it is absolutely vital in the construction. Semantically, causative ⁴⁰[pé] expresses approval, and in this respect it is similar to causative ⁴⁰[se] which is rarely used with human subjects and human causees. Causative ⁴⁰[pé] sometimes implies its lexical meaning ‘give’; in such cases, the verb ⁴⁰[pé] may be interpreted twice: once with the meaning ‘giving something to someone’ and then again with the meaning ‘asking him/her to use it’. When causative ⁴⁰[pé] carries the meaning ‘give’, it is no longer similar to the causative causative ⁴⁰[se].

It remains difficult to give a full account of the grammatical status and meaning of the causative ⁴⁰[pé] construction. Many speakers use this expression unconsciously while others do not wholly accept it as grammatical Burmese, a situation which makes it difficult to interpret consistently the judgements of informants. Nonetheless, it is worth describing this phenomenon to provoke further inquiry into Burmese syntax.
Is the Myanmar language really tenseless?

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1 Introduction

Whatever happens does so within a framework of space and time. Accordingly, the human mind is bound to make use of these dimensions when reporting actions. When expressing the contents of our minds language must also reflect somehow the relationship between the reporting of the event and the time when the event actually happens. Time is understood here to be a directional process which usually is divided into three stages: anterior–simultaneous–posterior, corresponding to the grammatical terms past–present–future tenses, respectively.

The concept of tense as the grammatical category of the verb that expresses this relationship is based predominantly on analyses of Indo-European languages, most of which have well defined systems to denote which time interval the speech is related to.

Tenselessness, on the other hand, implies that a language does not invoke specific grammatical forms for this purpose but prefers lexical or other means. The Myanmar language is said to be a language of this kind. Taking a closer look, however, Myanmar turns out to be ambiguous with respect to tense (as well as in other respects). Generations of students of the Myanmar language have been told that certain particles mark tense, or at least a state that corresponds with our understanding of tense. These particles, however, turn out to have more than this one grammatical function: they mark the end of the predicate and, because of the predicate’s position, very often the end of the sentence. Moreover, they convey a sense of actuality or non-actuality which can outweigh the temporal meaning. This has led to the conclusion that tense is not a category in Myanmar grammar, and that the respective particles’ basic function is to show realis or irrealis, i.e. actual or potential mood (see Allott 1965:287ff.).

The aim of this paper is to scrutinise once again the effect of the markers in question in order to find out whether they have any bearing upon an interval of time and, if so, which attitude towards time they reveal under which circumstances. In this paper morphemes with syntactic functions will be called ‘markers’, and those which refer to aspect, mood etc. will be called ‘particles’. I apologise now for the fact that in order to make my point I cannot avoid repeating a number of well established facts that have been discussed in depth by distinguished researchers into the Myanmar language.
I shall start with the truism that if a category ‘tense’ in Myanmar language is assumed, then two tenses are distinguished: a clearly defined future tense on the one hand, and a non-future tense otherwise.

2 Functions of the sentence-final verb phrase markers မည် (ဗိ) and ပူ

2.1 မည် (ဗိ)

Sentences ending in မည် (ဗိ) may refer to an event which has not yet taken place, as can be seen in (1)–(3):

(1) ဗိဗိဗိ မြန်စား မည်

this.peasant.female fish.curry eat.IRR

'This peasant woman will eat fish.'

(2) ဗိဗိဗိ မြန်စား မည်

tonight U Hla Pe I.PL house.to come.visit.IRR

'Tonight U Hla Pe will visit our house.'

This also applies to markers derived from မည် (ဗိ), such as the relative clause marker မည် in (3):

(3) မည် မည် မည် မည် မည်

father.be.person eat.NEG.finish.because clear.IRR daughter.PL.SUBJ

wait.CONT.PL.REAL

'But as the father had not yet finished his meal, yet the daughters who were to clear (the table) kept waiting.'

In (1)–(3), မည် corresponds with future tense. But မည် can also occur in sentences which do not refer to future time, as in (4)–(7):

(4) မည် မည် မည် မည် မည်

he age 30.approx exist.IRR

'He will/must be aged about thirty.'

(5) မည် မည် မည် မည် မည်

my teacher this.forest.PL one.area.in.EMPH exist.must.IRR

'My teacher must be around in these forests.'
Is the Myanmar language really tenseless?

(6) ကြီးဗာရွိများအားလုံးက များ ရှိကြည်ပြီး တစ်ခါ
kajin.lumjo.de.dwim 1832-k'yu.ni.?thc? sójwe
Kayin.race.PL.in 1832.CLF.year.than early.SUBORD

(7) အိုး ရှုးယောင်များ ကျင်းပသောအချိန်ကပြား စိတ်ကိုယ်စားလှယ်
1800.bje.ni? pa?wün.jin.gan.dwim mjänmà.nàinjàn.?i
1800.CLF.year region.approx.in Myanmar.country.POSS

In these sentences မိုး mè or မိမြီး mjî indicate hypothetical events: things that might happen or might have happened. All other occurrences of မိုး mè or မိမြီး mjî (including the attributive forms မိုး mè and မိမြီး mjî and the nominalising form ရိုး မတ် derived from it) can be classified as one of these two types.

The same applies to the marker ထိုး ၏? an which nowadays is used only in very formalised or elevated language, but was common in ancient inscriptions (8)–(11).

(8) ဗာရွိး ကြည်ပြီး ၏ များကျင်းပသောအချိန်များကိုပြိုလောင်စေ ရှိပါသည်
iy' na amho".kà sabbraññutaññan' prañjā ra.am".si
this my merit.TOP omniscience wisdom gain.IRR.person

(9) ကြည်ပြီး ၏ များကျင်းပသောအချိန်များကိုပြိုလောင်စေ ရှိပါသည်
nalaikyap' manîn'.so arap'.nhui̍k' klon' plu.am'
Ngalekyat named place.in monastery make.IRR

(10) ကျင်းပသောအချိန်များကိုပြိုလောင်စေ ရှိပါသည်
below write.IRR.ATRR incident.small.SUBJ

The small incident I will report below…” (Shwe Hmya 2000:59)
In sentences (8)–(11) သည် သည် denotes actions which have not yet taken place but which can be identified with the future. Like မ(Guid më however, it can express the subjunctive as well, depending on the context, as in (12):

(12) စိုးမှု့: မဟုတ်သောစိုးမှုများ လူနှင့် မျှော်စွာများ သို့မဟုတ် သို့မဟုတ်

ချက်မပြုချင်

seven.standard succeed.person.PL.for.EMPH how say.thing exist.still.IRR.Q

‘How could anything be left to say about those who passed the seventh standard?’
(Maung Wa 1965:136)

2.2 သည် (သည် သည်)

There is common agreement that သည် (formal variants သည် သည်) marks events that are not related to the future, i.e. general statements as well as events which have happened or are ongoing in the present, as in (13)–(17). The distinction between past or present can be specified by time phrases, as necessary.

(13) ပျဉ်းမှု့မှု့းများ မြင်လျော်ချက်များ

မှု့မှု့မှု့များ မြင်လျော်ချက်များ

m’auNbat’hú magwè.mjò.mà nè.dè

MaungBaHtoo Magway.town.in live.REAL

‘Maung Ba Htoo lives-lived in Magway.’

(14) ညိုင်စိုးမှု့များ

ညိုင်စိုးမှု့များ

?ēpí.la.mà nè.pù.dè

April.month.in sun.hot.REAL

‘April is hot.’ (general statement)

(15) ညိုင်စိုးမှု့များ

ညိုင်စိုးမှု့များ

lùngè.de.la.gà.lè nè.pù.dè

last.month.in.also sun.hot.REAL

‘Last month it was hot as well.’ (past time specified by time phrase ‘last month’ and choice of nominal marker ‘in’).

(16) ညိုင်စိုးမှု့များ

ညိုင်စိုးမှု့များ

bàmà.dè.gà tewi.śè’.kēlè.dè.go tewi.śè’.kēlè.bà.dè

Bamar.PL.SUBJ ouk-aw.bird.little.PL.OBJ love.PL.POL.REAL

‘The Burmese love the little ouk-aw birds.’ (general statement)
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Such is the normal use of ရှိတာ tè. Under certain circumstances, however, it can occur in a sentence which refers to an event in the future, as in (18)–(20):

(18) ရှိတာ

twe, dé,dà,bô
meet.still.REAL.NOM.EMPH
‘See you later!’

(19) မြို့မြောင် ကြည့်မွှေးဦး ကြည့်မှောင်

mândalé jau?, jin win.ge,dà,bô
Mandalay arrive.if enter.REM.REAL.NOM.EMPH
‘When you come to Mandalay, must drop in to see us!’

(20) ငြိမ်း လူမှုရေး လူမှုရေး: ရှိတာ ရှိတာ ရှိတာ ရှိတာ

teou? tâlé, lô bô,zagá ta?, jin teou? ta, gé sap̣àin lôu?, tè
1 uncle.like foreign.talk can.if I really spy do.REAL
‘When I can speak English like you, I really will be a spy.’

Again we find that the marker is fulfilling a twofold task: while as a rule it marks events happening at any time except the future, under certain circumstances it can also indicate determination with respect to a future action, outweighing tense.

2.3 ၂ပြေ

This marker is classed with ရှိတာ mè and ရှိတာ tè because of its syntactic capacity to conclude the predicate and the sentence. As regards the time dimension, however, it differs from them because its focus is not on an interval of time but on the result at which the action or happening denoted by the verb has arrived. It can mark the beginning of this arrival, the continuity of the state reached or just the fact of the result itself. This explanation tallies with the definition of the ‘perfect’ tense in an Indo-European context, though describing is as such is not generally accepted. Although ၂ပြေ indicates some kind of completion it should not be identified with perfective aspect as seen in (21)–(25) below. As ၂ပြေ has no parallel in Indo-European languages, it can be rather difficult to define. Many of the scholars who have investigated this intriguing issue have arrived at the same conclusion as above, describing ၂ပြေ as ‘point of realisation’, ‘punctative’, ‘change of state’ etc. (See also Pe Maung Tin 1953:134, Okell 1968:2, 383–386; Allott 1965:290–291; Wheatley 1982:219–221).

(21) ငြိမ်း ၂ပြေ ၂ပြေ

têou? ?atæän jâ.bi
1 idea get.pi
‘I have (had) an idea!’
In (21)–(25) the action has been realised before or, at the latest, at the moment of speech, and one might therefore say, as the Myanmar grammarians do, that 诸葛 can be considered to indicate non-future tense. But there are cases where 诸葛 can be used where context defines the time of the event as future, as in (26)–(27):

Both sentences can end with ‘I think’, indicating that the event is taking place in the mind of the speaker, where the outcome is already established. The same applies to situations where the coming of a person is announced by the phrase 诸葛 诸葛 ‘come.PERF’ even if the person has not yet set out, or to a situation where the driver of a car might be warned not to overtake by saying 诸葛 诸葛 ‘car come.PERF’.

When I have discussed the phenomenon of 诸葛 with linguists unfamiliar with the Myanmar language, they have suggested that it should be defined as perfective aspect instead of perfect tense. The idea is intriguing as 诸葛 indeed marks some kind of accomplishment. However, this is contradicted by the fact that the verb phrase can contain the progressive form 诸葛 诸葛. Perfectivity demands boundedness and change of state, but the inclusion of 诸葛 implies that the action is ongoing, as in (28)–(30):
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(28) ပေါ်တွင် မိမိ၏ အိမ်ဝင် ကြည့်မည်
home မိမိောင်း မည် la.nè.bi
there your.sweetheart come_CONT.PERF
‘There comes your sweetheart walking.’

(29) ကမ်း ကြားမို့နယ်မှာ နောက်ထပ်ကြည့်မည်
min.gà တစ်ခါနောက်ဆုံးကြည့်မည် p'ji?nè bà.bi
you.SUBJ revolutionary.great be_CONT.POL.PERF
‘Now you have become a great revolutionary!’

(30) ဆေးဗေး ပျင်းတန်ပျင်းနိုင် များနှင့် ရှားကြည့်မည်
jék'u.dô pounđaun.pounnya.mjè.gà mjá.zwà pjàunlé.nè.bi
now.however Pondaung.Ponnya.area.SUBJ much.ADV change_CONT.PERF
‘Now, however, the Pondaung Ponnya area is changing a lot.’

Although inserting the grammaticalised ညု: သုတ် ‘go’ in the verb phrase supports the idea of perfectivity by indicating the conclusion of a process, ညု လည် ‘come’ on the other hand, contradicts it, since it suggests the initial phase of the process, as in (31)–(34):

(31) လျိုးဗေး ကျွမ်းကျင် ကျင်း ကျင်း စီးနှင့် စီးနှင့်
là.gà.le koun.gà.mi.nè.bi lazìn koun.nè.dà
month.SUBJ.also exhaust.time.near_CONT.PERF monthly exhaust.CONT.HABIT

(32) လျိုးဗေး ကျွမ်းကျင် ကျင်း ကျင်း စီးနှင့် စီးနှင့်
là.gà.le koun.d Recorder.le.bi
salary.also finish.’go’.EUPH.PERF
‘The end of the month is drawing near, and the salary, which gets spent every month, is used up and gone.’

(33) လျိုးဗေး ကျွမ်းကျင် ကျင်း ကျင်း စီးနှင့် စီးနှင့်
là.gà.le koun.d Recorder.le.bi
rain.SUBJ more.pour.’come’.PERF
‘The rain is pouring more heavily [now]’

However, perfectivity is indicated unmistakably if the verb phrase is complemented with the grammaticalised variant of the verb ညု: ပူ ‘finish’ – identical in form to ‘perfective’ ညု ပူ except for the tone. Examples are in (34)–(36):

(34) လျိုးဗေး ကျွမ်းကျင် ကျင်း ကျင်း စီးနှင့် စီးနှင့်
là.gà.le koun.d Recorder.le.bi
now Land.Zan marry.’finish’.PERF
‘Now Zan and I are married.’
Applicable to non-future and future situations alike, \( \textcircled{3} \) \( \pi \) seems to support the idea of tenselessness. Yet in most cases the result of the event indicated by \( \textcircled{3} \) \( \pi \) coincides with a non-future situation. Occurrences with subsequent situations are reminiscent of future perfect tense in Indo-European languages. \( \textcircled{3} \) \( \pi \) mainly refers to the result of the action denoted by the verb in the verb phrase it concludes, but it has an additional, secondary function which may tentatively be described as aspectual, perhaps in the sense of \textit{Aktionsart}. For a more comprehensive picture, we extend our examination to negation.

### 2.4 Negation

It is an established and incontrovertible fact that a negated verb is not marked for tense, as in (37)–(39):

(37) \( \textcircled{3} \) \( \pi \) janggon.mà nè.θe.là mæ.nè.bà.bù

he Yangon. in live.REAL.Q NEG.live.POL.NEG

‘Does he live in Yangon?’ [no tense specified] ‘No[, he does not].’

(38) di.sàou? kò we.mà.là mæ.wè.bà.bù

this.book.OBJ buy.IRR.Q NEG.buy.POL.NEG

‘Will [you] buy this book?’ ‘No[, I will not].’

(39) \( \textcircled{3} \) \( \pi \) jau?.pi.là mæ.jau?,θé.bà.bù

he arrive.PERF.Q NEG.arrive.yet.POL.NEG

‘Has he arrived?’ ‘No[, not yet].’

Nevertheless, negated verbs are also not marked for actual or potential mood. Thus negated sentences do not seem to provide any clue regarding tense or mood, for which lexical means are used, for instance by negating a positive statement by appending a negated copula \( \textcircled{3} \) \( \pi \) mæhou? ‘is not’:

(40) sale.nak\( \textcircled{4} \)wè.mín mĩmĩ.?í ?ælv.?ælau?

Salay Nga Khway.king self.POSS wish.according
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However, the use of verb-phrase final markers with negated verbs is not necessarily ungrammatical. The shortened nominalising forms ဝေ ရှိ and ရှိမှ are often used with negated verbs, thus marking the predicate for tense or mood. As John Okell and Anna Allott demonstrate, ဝေ ရှိ or ဝေ မဟုတ် can follow a negated verb under certain circumstances, namely when the fact reported is already known (Okell and Allott 2001:96). In the formal language we may also find စိုး မဖြစ် following a negated verb. It is not merely a stylistic variant as some scholars assume, but accompanies certain conditions: it can underline the finality of the event, equivalent to the construction ယူရှိသော မှာ 'not verb any more' (Okell and Allott 2001:130), or it indicates that the event will not take place, equivalent to the construction ယူရှိမှာ 'will not verb' (Pe Maung Tin 1953:135). Examples of this construction are shown in (41)–(43):

(41) ယူရှိမှာ မယ်ရို ချစ်သောင်းမှုမူ ယူရှိမှာ

Now but village in Ma Yin Nwe also NEG.exist.PERF

'But now Ma Yin Nwe was also no longer in the village.'

(42) ဝါးနား အောင်နှင်း မိုးစိုမြေ ဝါးနား

I.POSS happy NOM.SUBJ NEG.end.can.PERF

'Very happiness, however, was endless.'

(43) ယူရှိမှာ မယ်ရို မိုးစိုမြေ ယူရှိမှာ

This head NEG.clean.PERF [=NEG.clean.anymore.NEG]

'This head is no longer clean.'

From the above examples it can be seen that the common feature of ဝေ မဟုတ်, ဝေ ရှိ and စိုး မဖြစ် is their basic function to conclude the verb phrase. Besides this, ဝေ ရှိ and ဝေ မဟုတ်
refer to the relationship between the moment of speech and the time interval of the reported event. Here the demarcation seems clear: anything subsequent to the moment of speech is to be marked by တစ်မာမခေါ်, and all other events by ကြက်သခါး. This is compatible with the concept of tense. On the other hand, however, တစ်မာမခေါ် can sometimes be found with future events while ကြက်သခါး occurs not infrequently in situations where the context—often made explicit with time phrases—cannot be described as future tense. With ကြက်သခါး such usage appears to be an exception to the rule invoked for reasons of emphasis or style. The same applies to ပိုင်ပ: its usage with coming events expresses imminence or definiteness, comparable to the use of the resultative or perfect in other languages. The case of တစ်မာမခေါ်, however, is different. တစ်မာမခေါ် does indeed regularly denote subjunctive mood, such as assumptions or other kinds of hypothetical propositions, irrespective of the moment of speech. In order to clarify whether this function upsets the assumed classification as a tense marker, we must take a closer look at the interaction of verb-phrase final markers with other grammatical morphemes within the verb phrase.

3 Degree of realisation

One of the main features of the Myanmar language is the insertion of various grammatical morphemes between the verb and the verb-phrase final marker, which further qualify the proposition by interacting with the latter and with the verb’s lexical meaning. Among them there are a few which are specialised in showing the degree to which an event is realised or completed as well as how events are interrelated with each other and with time. Some of those relevant to this issue are outlined below:

3.1 တစ်မာမခေါ်

The basic idea of တစ်မာမခေါ် is to convey the definiteness of an event and to give it a sense of finality. In detail the effect varies according to the verb-phrase final marker: with ကြက်သခါး finality becomes pronounced, as in (44):

(44) တစ်မာမခေါ်ကြက်သခါး

di.ta.kʰu.de.bɛ tean.dɡ.de
this.one.CLF.just.only remain.tp.REAL
‘Only this one piece was left [at that point].’

With negation, တစ်မာမခေါ် confirms that the event has passed and will no longer happen, as in (45)–(47):

(45) တစ်မာမခေါ်ကြက်သခါးမှာ

di.ta.kʰa.dɡ nà kʰan.nɛ.lɡ ma.ɡjiʔ.tɡ.bu
this.one.time.but I manage.cont.subord NEG.manage.tp.NEG
‘This time, however, I will definitely not put up with it any more.’

(46) စေးတို့ကြားအေသညှန်းသွားခဲ့သောစေးတို့ကြားအေသညှန်းသွားခဲ့သော

di.ta.kʰa.dɡ အခြေအနေသညှန်းသွားခဲ့သောစေးတို့ကြားအေသညှန်းသွားခဲ့သော
‘Those things, it happened that they were finished…’

1 For example, in German we might say Ich bin schon weg ‘I've gone’ instead of Ich gehe gleich ‘I'll be going’ in order to confirm the realisation of the planned action.
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My life is no longer the one my mother gave me.

Don’t ask me any more about it, Auntie!

Combined with ဗား mè, တည် t$_2$ reduces the hypothetical character of the statement thus marking imminent future ‘about to VERB’, as in (48)–(49):

The ship will depart immediately.

My mother is about to die over there!

Similarly တိုး ဗိုး, which is confined to non-realised actions, adds definiteness to the assertion and neutralises the effect of non-actuality inherent in the verb-phrase final marker ဗား mè. The result is an expression of future proceeding from the present, as in (50)–(52):

I will [go on and] pay a visit at Ma Yin Nwe’s house.

I will [go on and] have another cup of coffee.

I will [go ahead and] close the door.

I agree with Anna Allott (1965:295) that in the case of imperatives, the ancient marker ကြောင် t$_9$ may have merged with တည် t$_2$. This would explain why the sense of finality cannot always be traced, except in negative imperatives.
3.3  kh₃

The diverse functions of  kh₃ have made it a favourite object of investigation, discussion, and argument. Proceeding from the definitions of Cornyn (1944), Kassevich (1976), Allott (1965) and others, I conclude that it can be aptly described as a 'particle of the other dimension in time, space and actuality' — glossed generally in this volume as 'REMOTE'. Which of these dimensions predominates depends on the grammatical and semantic context. In sentences subsequent to the moment of speech (unrealised/irrealis), besides showing definiteness,  kh₃ indicates a spatial relationship implying movement towards the speaker with imperatives, as in (53), (54) and (55)a, and towards another person — often the addressee—in sentences concluding in  mè, as in (55)b, (56) and (57).

(53)  ᵖʰkh₃·bas
   enter.kh₃.POL
   'Come in!'

(54)  ᵖʰkh₃·nau?.ta.kh₃au? ᵖʰkh₃·pol
   teacher next.time come.if blouse buy.kh₃.POL
   'When you come next time, bring a blouse along for me!'

(55)  a.  ᵖʰkh₃·bas
   definitely return.kh₃.POL
   'Be sure to come back!'
   b.  ᵖʰkh₃·mis
   definitely return.kh₃.IRR
   'I will come back without fail.'

(56)  ᵖʰkh₃·bas
   teacher vicin.to come.kh₃.IRR
   tomorrow I
   tomorrow I will come over and visit you [,teacher].'

(57)  ᵖʰkh₃·bas
   definitely return.kh₃.IRR
   teacher read.want.REAL book.OBJ.also take.kh₃.IRR
   'I will also bring along the book you want to read.'

If, however, the semantics of the verb entail remaining in one place instead of movement, the interpretation of  kh₃ changes accordingly, as in (58) and (59):

(58)  ᵖʰkh₃·bas
   I car.OBJ house.front.in.EMPH put.kh₃.IRR
   'I will leave the car in front of the house.'

(59)  ᵖʰkh₃·bas
   you go wherever you want; I'm going to stay here.'
   go.want.REAL place.to go I.SUBJ.but here.in.EMPH stay.kh₃.IRR
In conditional clauses concluded by နား ‘if’ (or sometimes နား သွ ‘since’), far from emphasising realness, ချက် intensifies the hypothetical character, as in (60) and (61):

(60) သိမ်းပြုခြင်း သား နိုင်ငံ တွင် ဖြစ်စေ ချက်

မိုးသောနေ့များရောက် မျှဝေ နား: ချက်

tomorrow rain.rain. ချက် if I school NEG.go.NEG

‘If it rains tomorrow, I won’t go to school.’

(61) ဗိုလ်မှု ပြုလုပ် ချက် သိမ်းပြုခြင်း ချက် ချက်

သိမ်းပြုခြင်း အောက် ကြက် ကြက်

I only lottery.win.REM.if house.buy.REAL long.PERF

‘If only I had won in the lottery, I would have bought a house long ago.’

Together with the verb-phrase final marker နား သွ, ချက် shows that the respective event took place in a different time interval from the moment of speech. As နား သွ marks realised actions this interval can only be past. More often than not, therefore, ချက် is mistakenly described as a past tense marker. The Myanmar Language Commission (1993b:67) strongly opposes this view: if ချက် were a past tense marker, if would be used obligatorily for denoting past tense which it is not. Rather, it is applied whenever necessary to indicate that an event is over and finished with, in the completed past. Here, the effect of ချက် can be compared to the pluperfect tense of Indo-European languages, as in (62)–(64):

(62) မိုးသောနေ့များရောက် မျှဝေ နား: ချက်

မိုးသောနေ့များရောက် မျှဝေ နား: ချက်

Maung Ba jail fall.REM.[EXP.]REAL

‘Maung Ba had been in jail.’

(63) ချက်အား ပြုခြင်း: နား

ချက်အား ပြုခြင်း: နား

you.at son.daughter exist.Q?

‘Do you have children?’

(64) ချက်အား ပြုခြင်း: နား

ချက်အား ပြုခြင်း: နား

mother.for three.day continue.SUBORD I cry.REAL.REAL

‘I had wept for mother for three days.’

Simultaneously, ချက် can interleave an indication of time with an indication that the event took place somewhere else: compare (65) without ချက် with (66) and (67) with ချက်:
When did you arrive in Yangon?

When were you [over] in Yangon?

Would you like coffee? ‘I had some [elsewhere, before I came].’

While adding definiteness to the action and denoting a dimension beyond the event frame, ḭ kʰɛ is related to time. When it combines with ḥɛ ṭɛ, the sense of realness counterbalances the inherent sense of non-actuality so that future tense prevails. If combined with ḥɛ ṭɛ, ḭ kʰɛ places the event as anterior with respect to the time dimension. The issue of actuality or non-actuality does not arise in combination with verb-phrase final markers; it occurs only in conditional clauses.

The verb particle ḥɛ ḫɛ ‘PRIOR’ also defines actions which materialise before another event in question, as in (68)–(70):

But it pleased me that U Ponnya had been [there] before me.’

Oh, Khin Saw May, you’ve got here before us!’

I’ll go home [ahead of you].’

One of the effects of the grammaticalised form of the verb ḥɛ ḥtha ‘place’ is to indicate that the action expressed by the preceding verb is completed and established before another one, as in (71) and (72):

Run away! The king’s troops have encircled us!’
Is the Myanmar language really tenseless?

To summarise, ဗ in combination with သည် သည် implies that the respective event occurred before the moment of speech and remains there—corresponding to the past in the real-time dimension. However, the effect of နင် is confined to the linear sequence of actions irrespective of the time interval and သည် သည် has no bearing on the time element of the verb, so neither is taken into consideration in the present discussion.

3.4 လအား

Basically လအား conveys a sense of actuality to the action concerned denoting imminence and determination. It can be combined with all verb-phrase final markers to emphasise orders or confirm statements. Generally confined to functive verbs it can occur with stative verbs in exclamations such as (73):

(73) ကြားလှာတတ်

good.ဗြဲ,REAL' NOM

Wonderful!

Accordingly လအား lends actuality to non-realised actions ending in မှော် များ, thus again reducing the degree of potentiality, as in (74) and (75). It often appears with ဗြဲ.

(74) ကျော်ကြား ကျော်ကြားလှာတတ်

door.OBJ close.ဗြဲ,CONT.IRR

'I will just close the door first.'

(75) ကျော်ကြား ကျော်ကြားလှာတတ် ကျော်ကြားလှာတတ်

bully.REAL.QUOT shout.ဗြဲ,IRR

'I will shout that you are bullying me.'

3.5 ဗေ

With creaky tone, the 'politeness' particle ဗေ ဗေ acquires a sense of definiteness in statements ending with the marker မှော် များ, as in (76)–(78):

(76) ကျော်ကြား ကျော်ကြား ကျော်ကြား

I faith keep.REM.DEFINITE.IRR

'I will remain faithful to you!'
In questions such as (79)–(81), however, ကြောင်း ပွဲ conveys rhetorical doubt or some reservation about the feasibility of the action, thus increasing the hypothetical notion:

(79) မျှော်လင်း မပြောင်း မဟုတ်ပါ
will that really work?

(80) မျှော်လင်း မပြောင်း မဟုတ်ပါ
How could your parents accept [your marrying] a country girl like me?

(81) မျှော်လင်း မပြောင်း မဟုတ်ပါ
Are there people in the world who do not like stories?

3.6 ကြောင်း ပွဲ

Found only in verb phrases with the final marker မျှော်လင်း ပွဲ, ကြောင်း ပွဲ conveys a sense of probability from the speaker’s point of view. ကြောင်း ပွဲ frequently, though not exclusively, implies future time, as in (82)–(84). A fusion of ‘euphonic’ ကြောင်း လမ်း and ‘irrealis’ နှင့်, ကြောင်း ပွဲ is glossed elsewhere in this volume as ‘EUPH/IRR’.

(82) မျှော်လင်း ကargo ပွဲ မျှော်လင်း ပွဲ ကargo-barge မျှော်လင်း ပွဲ ကargo-barge မျှော်လင်း ပွဲ ကargo-barge မျှော်လင်း ပွဲ ကargo-barge
The cargo barges will probably only arrive in a week’s time.

(83) မျှော်လင်း ပွဲ ကargo မျှော်လင်း ပွဲ ကargo မျှော်လင်း ပွဲ ကargo မျှော်လင်း ပွဲ ကcargo
He will have lived in Yangon [at some point].
Is the Myanmar language really tenseless? 121

The effect of ဗား lein can be achieved by lexical means, i.e. by attaching မေးသား thìn.dè ‘[I] think’ to the statement. This is very common, and with the first person is preferred to ဗား lein.

4 Conclusions

I very much appreciate the approach to the study of Myanmar grammar adopted by Anna Allott (1965) in her paper on the verbal syntagma. I believe that the grammar of a language is only comprehensible if analysed in its own terms. This kind of approach is for me also an essential prerequisite for teaching the language effectively, and so it is the one I adopt myself. Simultaneously, however, teaching a language so different from one's own requires one to build bridges between familiar linguistic concepts and alien ones. In this context, I do not think that defining new terms or categories alone will help to get to the heart of a language.

Rather, it seems necessary to search for universal concepts which straddle both languages. Existence in space and time is one such universal concept, which no language can avoid referring to, although, admittedly, such reference may be expressed in a variety of ways. In German, time can be expressed by lexical means such as perfectivity and progressive aspect. Similarly, many languages known to have tense use syntactic means as well to express time. In the Myanmar language there are, besides time phrases, other ways of expressing time, such as the negation of a sentence ending with မိုင် mè or conferring actuality to such a sentence by attaching a predicate with သာ tè or some equivalent, as in (85):

(85) ကြာမီ တောင်ဗိုလ် နေ နေထိုင် နေကြည် ကြည်ထိုင် ကြည်ထိုင်ပြီ
Khine.PL.house.in one.night.sleep.SUBORD

နန်း နေ၇ ညှိမှု ပြန်မည် ပြန်မည်အောင်
Nan Li next.one.night train.with return.IRR be-REAL

'After staying one night at Khine's house, Nan Li is to return home by train the night after.'

The aim of this paper has been to show that the Myanmar language has developed specific syntactic strategies for expressing the position of an event in the time dimension, namely verb-phrase final markers in interaction with other verb particles.

The verb-phrase final marker မိုင် mè clearly defines a predicate as temporally posterior, characterising all others as anterior or simultaneous, marked by သာ tè or ပမာ pi. The demarcation line between the two categories is more exact than, for example, in German, where present forms are used to refer to the future: 'Ich komme morgen' I come tomorrow. In the Myanmar language, such usage is largely ungrammatical. If an unsophisticated person, perhaps a child, is shown an isolated sentence such as (86), he/she...
would substitute မည် for သည် because the combination of မည် သည် with a time phrase indicating past does not concur with the ingrained understanding of time intervals. It can work only within a context where မည် သည် is marking an assumption, perhaps by adding ပြင်သည် 'I think' to it.

(86) မည် သည် နောက်ဆုံး [ပြင်သည်]
နောက်တစ်ရက် ယူ လည် မည် သည် [ပြင်သည်]
‘I thought he would come yesterday.’

The markers မည် သည် reflect a concept of time that corresponds to the time dimension of reality and, therefore, can be assumed to express tense. On the other hand, it has been shown that verb-phrase final markers also denote mood, as (86) indicates, i.e. မည် သည် non-actual (irrealis) mood vs. သည် သည် and ပြည် actual (realis) mood. This is not peculiar to the Myanmar language; rather it reflects the natural correlation between future tense and non-actual potential mood or between non-future tense and actual mood: only events which did happen or are happening or used to happen can be actual; all events after the speech moment can only be potential or hypothetical. Both grammatical categories are interdependent, and thus ‘temporal distinctions may be expressed by morphosyntactic categories that have wider modal or aspectual functions’ (Chung and Timberlake 1985:206). This in particular refers to the way future tense is often used to express assumptions even in a language like German with distinct subjunctive verb paradigm. A hypothetical statement like ‘Er wird wohl dreissig Jahre alt sein’ *He will probably be around thirty years old* is common, but would one refute the existence of tense in German because of it? As the Myanmar language has no grammatical device to express subjunctive distinctively, it naturally uses for this purpose the very form which expresses another kind of potential event, namely future time. Thus it seems to be mainly a matter of approach or terminology whether an event is called potential or future, actual or past/present. To me it seems pointless to contrast these complementary capacities which are inherent in the verb-phrase final markers.

The following quotation from a history tale by Zawgyi ဇာကုဗု  illustrates this point. It reports the same event related to different intervals of time or different planes of actuality. In (87) the monk defines the conditions under which Maung Shin Nge can become the king. His words are orders referring to future time or potential mood. (88) reports what Maung Shin Nwe did. By now, the monk’s advice has been acted on and become reality; the action is no longer future, but present or past — realis mood. In (89), first the results of the efforts are reported in the foreground, marked by ပြည် as perfective, and what follows are completed events.

(87) နောက်တစ်ရက် ယူ လည် မည် သည် မိခိုင်မြူ နောက်တစ်ရက် ပြင်သည်
နောက်တစ်ရက် ဗိုလ် သီး မည် သည် မိခိုင်မြူ
next.one.day ယူ လည် မည် သည် မိခိုင်မြူ
call.SUBORD

(88) နောက်တစ်ရက် ယူ လည် မည် သည် မိခိုင်မြူ
နောက်တစ်ရက် ဗိုလ် သီး မည် သည် မိခိုင်မြူ
call.SUBORD

(89) first the results of the efforts are reported in the foreground, marked by ပြည် as perfective, and what follows are completed events.
Is the Myanmar language really tenseless?

However, learning.OBJ strive.SUBORD learn.must.IRR

thila.mjè.ja.mjì thikʰán.taʔ.ja.mjì têhìʔ.pʰwè.dò zagá.go
moral.firm.must.IRR tolerate.HABIT.must.IRR love.-able.ATTR speech.OBJ

Maung Shin Ngeh was not conceited. As the monk had advised him, he studied hard, was tolerant, and spoke in a lovely way.'
When the monk realised that Maung Shin Ngeh had become learned, had proved firmness of morals, had been tolerant, and had been able to talk in a lovely way, he told him to leave the order and entrusted him to the care of a high military officer-minister.'

The concept of tense is further supported by a number of verb particles whose attributes qualify them as tense markers. As has been shown above this is particularly true of မည်, for which the 'irrealis' component can be played down in favour of a designation as a future tense marker. The main function of a considerable number of grammatical morphemes in the predicate is to characterise the event with regard to the degree of realisation or modality in various ways, as categorised in (90), and others besides.

(90) continuity နယူ  progressive: VERBing တော်  continuative: while VERBing စိတ်  in the process of VERBing မယူ  always VERB သဘော  VERB yet

limits/sequence ပေါ်  finish VERBing သော်  VERB permanently သြား  VERB after all ကို  remoteness in space or time ဖြစ်  experiential: have ever VERBed နော်  VERB previously, in advance

habitualness တယ်  VERB habitually လို  VERB habitually နောက်  used to VERBing

sentiment နား  compassion/sympathy for the subject of the verb ယူ  VERB considerably

specific factors သီး  happen to VERB; VERB inadvertently/accidentally

This elaborate system of verb particles, for which we often fail to find equivalents when translating, suggests that the Myanmar language pays particular attention to aspect and mood. Nevertheless, in my opinion, however characteristic of the language this particular trait might be, it does not challenge the existence of the grammatical verb category 'tense'.

Being aware that this contribution may be controversial, I look forward to responses, however critical they may be, for the sake of further findings on the nature of the fascinating Myanmar language.
Towards a formal cognitive theory of grammatical aspect and its treatment in Burmese

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1 Introduction

In this paper I am going to discuss the so-called theory of grammatical aspect. This discussion was initially motivated by some correspondence between Alice Vittrant and me about a paper she presented at the October 2000 Burma Studies Conference at Northern Illinois University (Vittrant 2000) and subsequent correspondence between Anna Allott and me about my remarks on Vittrant’s paper. Vittrant’s paper was a systematic attempt to make sense of a series of non-final verbal elements in Burmese including both ‘particles’ and auxiliary verbs. Vittrant attempted to try and account for these elements using the grammatical categories of tense, aspect, and mode, and I would like to try and systematise these using a point of view that neither Vittrant nor Allott have employed, namely that of formal syntax and logical-cognitive semantics. My purpose in this paper is less to add any new treatment of the various Burmese formatives in question, and more to try and put the whole matter into a framework of modern formal linguistics, and therefore I shall not recapitulate Vittrant’s examples. My attempt to restate aspects of Vittrant’s treatment and make specific proposals concerning some of the formatives has benefitted greatly from Mrs Allott’s comments (pers. comm. 2000) and her references to Okell and Allott (2001) and Stewart (1955). This has enabled me to place the formatives within this technical framework, thus improving upon previous treatments of these elements. I am especially grateful to Mrs Allott for pointing out to me a number of places in my original correspondence where my phrasing, if only through infelicitous and misleading renderings into English, obscured my point, even, in some cases, mis-stating my claims about some of the aspectual particles and auxiliaries. However, I am certain she will still disagree with

1 I am omitting from this paper any serious attempt to deal with the fact that, although aspect is clearly a fundamental category of the verb phrase as a whole, there is no unique syntactic ‘slot’ to be identified with it. In the final analysis, and given the current situation of formal, generative syntactic theory, this seems to be of at most minor importance. Moreover, this is in fact a morphological matter, or how an abstract ‘functional’ syntactic category is realised lexically or ‘spelled out’.

some of my analysis. In her earlier work on the matter (1965), Allott’s motivation was to make the various particles and auxiliaries easier for her language students to understand; she employed a much more restrictive notion of aspect, based in part, so she has said (pers. comm.), on her intimate acquaintance with aspect-marking Slavic languages (Czech and Russian). In particular, she did not, and perhaps still does not, think that categories of perfect and perfective belong to the notion of aspect, unlike most syntacticians in current formal linguistics (see Comrie 1976, Hopper 1982, or Klein et al. 2000). However, she has also noted that when she wrote the 1965 paper, she had not yet read any technical linguistics. So first I would like to, at some length, discuss the notions of tense, mode and aspect, respectively, and then see how various elements in Burmese might fit into such a framework. This will require me to generalise the idea of aspect beyond current formal linguistic treatments.

A Modal–aspectual ‘particles’:

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<tr>
<td>tê</td>
<td>realis mode finite verb ending</td>
<td></td>
</tr>
<tr>
<td>mê</td>
<td>irrealis mode finite verb ending. Its default reading is future.</td>
<td></td>
</tr>
<tr>
<td>pi</td>
<td>marks the perfect aspect and requires no overt modal ending (inherently realis)</td>
<td></td>
</tr>
<tr>
<td>òé</td>
<td>marks the imperfective aspect as ‘still’ going on (not yet over)</td>
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</tr>
<tr>
<td>tɔ</td>
<td>marker of a ‘sharp’ transition between aspectual states</td>
<td></td>
</tr>
<tr>
<td>?óun</td>
<td>marker of a ‘smooth’ transition between aspectual states</td>
<td></td>
</tr>
<tr>
<td>kʰg</td>
<td>marks very definite, remote perfective aspect</td>
<td></td>
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<tr>
<td>mì</td>
<td>‘happen to VERB’, ‘manage to VERB’; a qualification of the perfect aspect, but, unlike kʰ pi PERF, requires a modal ending</td>
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B Aspectual auxiliaries:

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<tbody>
<tr>
<td>pi</td>
<td>‘to finish’ → in grammaticalised form indicates perfectivity, commonly used before kʰ pi PERF</td>
<td></td>
</tr>
<tr>
<td>nê</td>
<td>‘to remain’ → grammaticalised as imperfective; continuative, progressive marker</td>
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<tr>
<td>laiʔ</td>
<td>‘to follow’ → in grammaticalised form can indicate an immediate realisation of an intended state; glossed in this volume as ‘just’.</td>
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<tr>
<td>thá</td>
<td>‘to place’ → in grammaticalised form indicates definitive, permanent, lasting enactment; applicative</td>
<td></td>
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<tr>
<td>ðwá</td>
<td>‘to go’ → used in grammaticalised form with manner of motion main verbs to indicate motion away from a starting point; with other verbs to indicate states ‘departing’ from what is normative.</td>
<td></td>
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<tr>
<td>là</td>
<td>‘to come’ → used in grammaticalised form with manner of motion verbs to indicate proceeding towards the present state; with other verbs to indicate movement towards or arrival at a normative condition</td>
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A comment here with regard to òé and tɔ: morphologically they seem to fall within the scope of negation, as in (1):
Towards a formal cognitive theory of grammatical aspect in Burmese

However, syntactically and semantically the aspectual particles take wide scope over negation, since the actual meanings are ‘still not VERBing’ and ‘at last not VERBing’. We must conclude that the usual formal semantic treatment of negation as taking wide scope over a whole predication or proposition, as in the logical formulation ‘NOT p, for any proposition p’, is incorrect, and that, for Burmese certainly, NEG+VERB is to be understood as a present, or current state, the absence or contrary (not the logical contradictory) of the state meant by VERB alone, rather than a denial of the affirmation of the state.

2 Tense, mode and aspect

English and many other European languages are tense-marking languages: aspect is less systematically or obligatorily marked in the verb phrase than tense. However, many languages mark a verb phrase for aspect rather than tense. Aspect concerns the very fundamentals of the idea of an event (see Tenny & Pustejovsky 1999; Pustejovsky 1991; Chit Hlaing 2000) as figured in an utterance or sentence. It is easy to see that a verb, and hence the sentence, is always about some event — real or imaginary, which we can equally call a State of Affairs, or simply state. A verb can be about a process, happening, or a non-dynamical state, for example ‘John came,’ ‘This is a book,’ ‘Nothing is happening.’ Aspect indicates what is marked about the way an event is understood with regard to its conceptual definition or ‘boundary’ conditions (see Klein et al. 2000). What ‘boundary’ means here is simple. Time is continuous so how does a given portion of what goes on in the flow of time become a conceptually specifiable event? As an initial and somewhat stark approximation, it is connected with the cognitive construal of the flow of happening in time: that an event or state is understood to come into being, and also — sooner or later — come to an end. Events are conceptual objects and these are mapped onto the real time line. But, as I shall demonstrate, such boundaries cannot be identified with literal points in time.

We can understand aspect in terms of what have been called ‘state diagrams’. A state diagram shows the various ways an event is related to its boundaries. Obviously, aspect has a lot to do with grammatical-lexical-semantic time or tense, rather than the ‘real’ time line. Real time is, after all, smoothly continuous with no designated partitions at all (the mathematician’s expression for this is ‘everywhere dense’); past, present, and future do not exist in time except as relative to events. ‘Now’ is just the topological neighbourhood of a given event or state of affairs, namely the event of speaking of some discourse, or the state of the speaker of the said utterance. Save for such a construal, the beginning and end of an event, in particular, are not defined literally as points in real time and it is this construal which enables aspect to be mapped onto the real time line. To use a silly but perfectly adequate example, even the moment when the first nerve impulse is sent that allows you to start taking a step is too coarse grained to be truly equivalent to a dimensionless point!
However, aspect cannot be sensibly discussed without also talking about *mode* or *modality*. Let me begin with the latter. An event which has not yet transpired is conceived of as not yet ‘realised’, so it is said to be modally *irrealis*. What we commonly call ‘future’ is actually *irrealis*. In many languages there is a close relationship between the future form of a verb and the forms marking subjunctive or hypothetical construals of an event, for example in English ‘will’ and ‘would’; ‘shall’ and ‘should’, and so on. Aspectually, the future is what we can call ‘inchoative’ — the state of some event, possibly imagined, which is either about to take place, on the point of taking place, or just barely starting to take place; or else which is simply non-perfect, by which we mean it is, in some sense, not (yet) happening, and possibly, in the case of ‘contrary-to-fact’ utterances such as ‘*If it were* the case that...’ or ‘*It may be* the case that...’, not ever going to happen. But notice that we can lie, tell an imaginary tale, or simply be in error, and still relate something as being ‘so’. Of course from an objective point of view it remains ‘unreal’, but cognitively it is modally *realis* within the framework of the discourse in so far as we ask our hearers to accept or maybe just imagine it as an actualised event. But if we claim in a discourse that such and such a proposed event has not yet happened, or will not (yet) happen, it is modally *irrealis*. For now, this is sufficient discussion of mode and I will return to aspect.

Basic aspect category may be defined roughly as an aspectual distinction that is always marked in aspect marking, even if other, finer distinctions are not made in a given language. The perfect aspect is concerned with the state in which an event has at least begun to be realised, and is modally *realis*. This aspect is what we mean when we use the so-called ‘perfect tense’ in English. For instance, if I say ‘*I have seen* such and such,’ I indicate that I have at least begun to notice it, and though in English, as a tense-marking language, this is commonly construed as past, it is not necessarily so, I may be still noticing whatever it is. In order to grasp this, ‘*hear*’ may be a better example than ‘*see*’; another example is if I say ‘*I’ve understood you*,’ notice that it does not mean I no longer do so. The discursive literature on such matters tends to comment that it is a kind of past that remains ‘relevant’ to the present, but this is unhelpfully vague. In fact what is significant here is that it is unspecified whether or not the state or event mentioned is completed.

In an aspect-marking language, such as Thai, if I say about someone แม้ว่า ลีเอว ‘(He) has come,’ it does not mean that he has got here, but only that he is, at least, already known to have started on his way. In Thai ฉ่อย ลีเอว means ‘to finish’ and signifies that one has, as it were, finished with the *inchoative* state, finished, let us say, waiting for the event to start to be *realis* modally. In Burmese, the same goes for ကြည့် ဝိမ် ‘go.PERF’. Even in English, if I say ‘He has gone to London.’, he may not necessarily have finished the going, but he is at least *en route* to a destination. Burmese provides good illustration of this, if I say about my friend ရှာ ‘come.PERF’, he may well not be here at all, but perhaps I can see him in the distance on his way.

Another basic aspect category is the *imperfective*, which has to do with an event that has clearly not only begun but is also explicitly not yet over. ‘He is going’ is imperfective in English. In language teaching, we sometimes refer here to the ‘progressive’, and obviously, if something is ‘in progress’ it certainly has not finished, nor can it have not yet begun.
Finally the **perfective aspect**, which marks an event as completed. In English, the past tense is in fact aspectually perfective. If I tell you that yesterday ‘He went to Chicago,’ you understand that his going is an event that is no longer to be considered on-going: either he may be supposed to have reached the Windy City, or else the journey may have been aborted. If I want to say that the event may still be in progress, in English I am better off saying that ‘Yesterday he left for Chicago.’ In Thai, at least for many, but not all, speakers, ฉันได้จัดการ แล้ว ‘to have finished with having brought into being the event of going’, at the very least signifies that the event is irrelevant to what is going on ‘now’, to the current ‘state of affairs’. It is not construed as being in the topological neighbourhood of ‘now’. In Burmese the matter is more subtle, since we can distinguish rather nicely, though not absolutely, between culminative and non-culminative perfective aspect i.e.. between perfectives that do not necessarily imply that an act with a goal has reached that goal and those that strongly imply such a conclusion.

Really, the only major distinction between tense and mode-and-aspect marking languages is that in the latter we do not explicitly categorise the verbal phrase as either past or present, both being *realis* mode and at least perfect aspect. Thus, if in Burmese we say ကြယ်စိတ် သိမ် ‘go.REAL’, it can mean in English either ‘he goes’ or ‘he went’. If I want to indicate it is past (or ‘preterite’, as we might say in school grammar), I need to make it either aspectually perfective: ကြယ်စိတ် သိမ်. ‘go.REM.REAL’, or at least specify the past adverbially with ‘yesterday’ or ‘former’ etc., rather than marking the verbal expression itself with ကို kή, which refers to remoteness, or ‘other times and places’ as Comyn (1944) put it, echoing Stewart (1936; see also Stewart 1955: 39). But two or three further remarks are in order. It is frequently said about Burmese and other similar languages that they do not systematically mark the verb for tense. Though accurate, it is not quite that inasmuch as perfective aspect is necessarily past in time. As I pointed out above, even a tense-marking language like English has a perfect aspect which is no more exactly or uniquely either past or present than it would be in Burmese; it is simply *realis*, which from a logical–semantic standpoint subsumes both of those tenses: it is a combination of *realis* mode and perfective aspect. This is not just a trivial observation: on independent grounds already mentioned above, tense cannot be plausibly taken as a basic category of an event because it is a consequence of the mapping of aspectually defined events onto the time line.

Secondly, it is always possible to embed events inside other events, and so, unsurprisingly, aspectual states can be grammatically embedded within other aspectual states. To say ‘By the time I came he had (already) gone,’ is to indicate that the event of his going was aspectually perfect whilst mine was inchoative. My third point follows from these considerations: the absence of a ‘real’ boundary between ‘now’ and ‘then’. The real time line has an infinite number of points between any two designated moments, and it is accordingly senseless to define the point onto which the supposed boundary might fall. This is so regardless of whether ‘then’ is past or future. The future may then be defined as those states of affairs ordered after the present state of affairs is to be considered over and done with (aspectually perfective). Similarly, the past is that portion or ‘neighbourhood’ of the time line such that the current state of affairs is still aspectually inchoative whilst some other state of affairs is at least aspectually perfect. All this can be graphically represented using very simple ‘state diagrams’, such as Figure 1.
In this diagram the line \( ab \) is the real time line. Line \( x \) marks the point at which we consider a given event or state of affairs to go from \textit{irrealis} mode to \textit{realis} mode. The arrow of the left hand curve serves to indicate the event being aspectually perfect. Line \( y \) marks the point at which the event may be considered over and done with, as indicated by the directionality of the right hand curve. It is only necessary to observe that once an event has happened, i.e. once it has become modally \textit{realis}, it can never be undone - it can never ‘not have happened’, and so the past and present are alike modally \textit{realis}. This is of course a direct reflection of the irreversibility of the unidirectionality of the physicists’ ‘arrow of time’. ‘Now’ (the ‘present’) can only be defined as the indefinite neighbourhood of \textit{any} point (by default, the mid-point) on \( ab \), lying between its intersection with \( x \) and \( y \) just in case the event represented is that of the present utterance itself. More accurately, ‘now’ lies between the neighbourhood of the midpoints of the left and right hand curves, respectively, between when the event could be considered inchoative and when it could be considered perfective and hence no longer relevant to some event ordered after the event of the utterance.

Note the relation between the aspectual event–space and the space of modal distinctions: \textit{irrealis} mode is everything to the left of vertical line \( x \), with the inchoative being a limiting case transitional to \textit{realis}. \textit{Irrealis} implies the distinctions mentioned elsewhere, between, let us say, ‘future’, conditional contrary-to-fact, hypothetical–subjunctive, and so on. The resulting total event–space has to be orthogonal to the plane \( a–x \), making the entire space three-dimensional. Then the region of this three-dimensional space that would lie behind the plane \( xy–b \) would, of course, be the part of this conceptual event–space having to do with such matters as imaginary events, namely so-called ‘possible worlds’ semantics (see Wilson and Keil 1999: index under ‘possible worlds semantics’). These are concerned with \textit{realis} mode fictions, lies, and so on, and though grammatically \textit{realis}, are not subject to truth–functional or extensional tests of meaning. The dotted lines tentatively indicate this latter consideration. Anna Allott has pointed out (pers. comm.) that informally we view time as proceeding towards the right, into the future. One might plausibly suppose that since the future is clearly \textit{irrealis} and the past by definition cannot be made not to have been, therefore everything to the left is necessarily \textit{realis}. Bear in mind, however, that I am talking about event–spaces. Once we go into the temporal ‘future’, simply forward from the present ‘moment’, any given event that has once happened cannot ever be otherwise; whilst there is, inevitably, a time before an event has begun, when it can be said to be ‘going to happen’ and is accordingly \textit{irrealis}. This is the best available demonstration of the difference between real time and event–spaces.
3 Extensions of Mode and Aspect Theory

Though the foregoing construction is a useful initial approximation, the final analysis will ultimately require more dimensions than the two of the simple diagram above. One basic reason for this is that aspectual or conceptual events (the kinds of events designated by propositions) in realis mode apply both in the real world — where truth-functional tests apply, and also in an imagined world — where extensional truth-functional tests clearly cannot apply. If I say ‘The cat sat on the mat,’ then it is true, if and only if, there is empirical evidence of a given cat actually reclining on a certain sort of mat at some point \( t \), in space and real time, and in realis mode. Yet I can tell an imaginary story containing that same proposition and still mentioning ‘past’ — the perfective aspect referred to as ‘past tense’ which has to do with an event being over and done with, but where extensional truth-tests are inapplicable. This is why the representation requires modelling in more than two dimensions: we have to imagine that even perfect, imperfective, and perfective events (ones that in tense languages are present and past), though realis in imaginative and hypothetical discourse, are, in some unclear sense, irrealis relative to the space of events not construed as imaginary. Therefore I have initially represented the space of modality as a sort of L-shaped plane orthogonal to that of the aspectual state space. Even this is still problematic, hence my continued work to perfect the representation.

The problem (which modal logic and possible world semantics are built to try and handle) is that is necessary to embed parts of these spaces in themselves. This is because in ‘real-world-and-time’ (where truth functionality/extensional reference applies) irrealis mode is neatly defined as the left hand side of the state space, i.e. left of the line over which, to the right, we define perfect aspect. However, is it not the case that in the ‘realm of imaginaries’ (as I call it in Lehman n.d. the ‘post-inchoative’ portion of the state-space ‘plane’ in effect embeds realis within irrealis? How can such a claim be proved? Let us examine a possible extension of my graphic representation:

**Figure 2**: An elaborated state-space diagram for both real and imaginary states.

This illustration is not entirely satisfactory. Firstly, there are two cuboids: the larger is the three-dimensional space of what is conceptually imagined material — pure intensionality — labelled ‘irrealis’. The smaller, interior cuboid, embedded within the larger one, is
state-space, onto which aspect is defined. These cuboids must be co-extensive left and right. Within the interior cuboid is a third cuboid defined by planes projecting back from the vertical lines whose bases are \( c \) and \( d \), respectively. The plane \( abcd \), defined by the front of the interior cuboid, is the plane containing 'pure' \( \textit{realis} \) - the region where Extensionality or Truth Evaluation (Truth-conditional semantics) uniquely applies, just to the right of the vertical line with base \( c \). In all other regions of the embedded state-space cuboid, \( \textit{realis} \) is embedded within \( \textit{irrealis} \). In either part though, one proceeds, left to right, from 'pure' \( \textit{irrealis} \) to \( \textit{realis} \); and then proceeds towards the right, crossing over the plane defined by a projection from the vertical line with base \( y \), to perfective.

This can be slightly simplified by imagining, the outer being 'possible world space' (in the sense of 'possible world semantics'), and the inner being defined only by the imperfective region of state-space. Then one defines the domain of \( \textit{realis} \) event-states as everything to the right of the left end of the embedded cuboid (over which the left curved arrow goes), and it still remains the case that the front plane of the whole construction is the region for Truth Valuation, within which plane we define the region of pure \( \textit{realis} \) to the right of the left-hand side of the interior cuboid (the plane extending back from the line \( ab \)). This leaves us with the leftmost portion of the front face of the construction as a region of what I may call 'potential (inchoate) Truth Valuation'. Behind this front face, to say that all the \( \textit{realis} \) is properly contained within \( \textit{irrealis} \), is to say that everything is imaginary, whilst preserving the idea that a distinction exists between \( \textit{realis} \) and \( \textit{irrealis} \) statements and notions: even in imaginary, contrary-to-fact discourse one uses present and past tense; perfect, imperfective or perfective aspect, and so on. So, to a great degree, it turns out to be correct to define \( \textit{irrealis} \) as the domain of all statements not subject to Truth Valuation semantics and to define \( \textit{realis} \) as the domain of all statements at least imagined as having been realised, whether or not this imagined realisation can be tested by Truth Valuation.

4 Burmese verbal adjuncts and the foregoing theory of mode-and-aspect
I will now begin to analyse the Burmese means for expressing aspectual distinctions semantically and continue with commentary specific to Vittrant’s paper. I start with the auxiliary verb \( \textit{a?\text{̄}lai?} \), glossed as 'just' elsewhere in this volume. If this is really aspestual instead of merely an auxiliary of a verbal compound, then it is certainly not perfective, but rather some sort of 'perfect'. That is, it appears to always mean that the action of the main verb is or was (depending upon the temporal adverb) undertaken precipitately – 'at once' or even, 'all of a sudden', as in Vittrant's (2000) analysis. This is especially notable when this verb occurs before 'future' \( \textit{\( \text{ð\text{ñ}l}\) mè} \), as in (2) where the strict implication seems initially to be that my going will immediately follow the moment of the statement, and the verb \( \textit{a?\text{̄}lai?} \) in this usage retains its lexical meaning of 'follow'.

(2) \( \textit{\( \text{ð\text{ñ}l}\)go.\textit{lai?}\,\text{ð\text{ñ}l}\)mè} \)
\( \text{go.\textit{lai?}\,\text{\textit{\( \text{ð\text{ñ}l}\)}}\text{\textit{mè}}} \)
'I’ll go at once.'
However, this is a complete and adequate statement as it is, as Allott (pers. comm.) has reminded me. The reason for this is that we are dealing with event structure rather than the time line, and so the translation 'at once' can be badly misleading. In fact, the intended meaning is that one will definitely or definitively go; it is not merely a plan or hope, but rather an intended action to 'follow' (literally) through on the intention! Okell and Allott (2001:214) write on ကြိမ်ချည်:

' (a) to V away, out, thoroughly, decisively; to just V, to V ... simply, minimizing the time and effort involved in the action.... ' (my italics)

Incidentally, I claim that ကြိမ်ချည် is not itself an aspect marker at all (see Note 1), though it certainly has semantic implications for the function of grammatical aspect, it is an error to confuse grammatical aspect with its merely semantic parallels. In any event, the semantic force of ကြိမ်ချည် is inchoative, or more accurately 'inchoative–perfect' for it indicates that an event begins, began, or will begin, precipitately, without regard to its ending or not. Thus, future usage is one of figurative overstatement: (2) is said to give the impression that my going will follow so rapidly that, for all intents and purposes, by the time you can notice, I shall already have gone!

Similarly, consider the auxiliary စခြင် ‘finish’. Of course, စခြင် is used aspectually as a perfective auxiliary. This function follows from its lexical meaning 'finish', but it is, as nearly as you please, grammaticalised in its perfective function. When followed by the perfect aspectual particle စခြင်, its force is mainly perfective: as in (3) which may literally translate as 'I have finished going,' and therefore signifies that it is all over and done with, hence 'I went.'

(3) ကြိမ်ချည်
thagá.bi.bi
go.‘finish’.PERF
'I went.'

Otherwise, if စခြင် ‘finish’ stands alone in VP-final position as an auxiliary, it marks only a participial–subordinate clause, စခြင် ‘finish’ alone being a participial form like any bare verb root. This is how it comes to serve as a subordinating conjunctive marker in (4), which in English and French etc. would be a co-ordinate clause conjunction.

(4) ကြိမ်ချည်
tha.thagá.bi
he.go.PERF
sleeper.go.REAL
'After he'd left, I went to bed.'

It is interesting to note that when စခြင် is used perfectly, the state of being finished with any action or event is such that, the perfect and perfective collapse together: to start to have finished is, tout court, to be done with whatever it is.

စခြင် သမ ‘put’ is another interesting case. Again, it preserves its lexical meaning ‘to put’, so that (5), from Vittrant (2000), can be translated as 'I took a bath' in English, though literally it says 'I took (instead of 'put') a bathing' or 'I took and bathed myself.'
More colloquially, where the clear implication seems to be that if I ‘take’ an action, then the action has to be ‘whole’ and hence, as Vittrant indicates, complete. This does not, as Allott has pointed out to me, entail that I am clean now. Stated in the terminology of aspectual categories, grammaticalised \( \text{thá} \) is not necessarily resultative, although to the extent that \( \text{thá} \) is at least semantically, if not morphologically, perfective, it is also resultative: if I ‘put’ something somewhere, that is then where it is, however, I would suggest this has to do more with this verb in its non-grammaticalised, non-auxiliary usage. This is also true for English: there is a similar distinction between ‘I took a bath’ and ‘I bathed.’ Semantically aspectual use of the auxiliary \( \text{thá} \) is, then, what is commonly called ‘applicative,’ meaning it indicates an application of a whole action, of a given sort, in a given instance (see Chit Hlaing in press on Lai Chin).

Let me now consider (6), another example from Vittrant (2000), which indicates that the girl is decidedly beautiful; it is not that she has suddenly become beautiful, but rather that the very instant one sees her one recognises her beauty. More literally, perhaps, she immediately falls into the category of being beautiful.

What may seem confusing is that adjectives of quality, such as \( \text{káun ‘good} \) collapse perfect and perfective together, for if you are ‘no longer not yet good’, say, then you are as good as it gets, such qualities being essentially binary: the state of goodness is accomplished as soon as it starts. This is complicated: clearly, there are degrees of goodness; this is clear from the fact that adjectives of quality have comparative and superlative forms. But these are measures of goodness or badness, and not degrees to which we may question whether the quality is present at all. One falls into the category of being tall as soon as one is any taller than someone or something else. Shortness, however, is a lesser degree of ‘height’. The lower limit of height is exactly identical with the lower limit of shortness, namely, null height (zero). Similarly, one may be less good or more bad than someone or something else, but again the limits of these typically polar adjectival qualities overlap.

Consider (7), another example from Vittrant (2000):
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This is hardly distinguishable from (6), save that in the latter the beauty is, as it were, immediately obvious, whereas the former emphasises the possible fact that it is ‘proper’ or ‘prototypical’ beauty. She ‘takes proper place’ (ţuţă tʰá) in the category of being beautiful: the category naturally applies to her. I shan’t say much here about the auxiliaries ĺ̐ wá ‘go’ and ļ̐ lā ‘come’. As an auxiliary ĺ̐ wá indicates that the event or state is, as it were, ‘proceeding towards’ perfectivity, or towards being culminative — reaching its limit. It is therefore, in some sense, inchoative. But then we need to distinguish inchoativity at both ends of the state-space of events and states, something never even imagined by Comrie (1976). A state or event can be ‘about to’ start or ‘about to’ complete itself. I am much indebted to Vittrant (pers. comm.) for making me see this so clearly. For instance (7), another example from Vittrant (2000), tells us that one Cho Cho has already ‘gone on’ to knowing how to talk our language:

(b)  Ga.pjo.11daʔ.ţ̐ wá.d̐ ā
    speak.can.’go’.REAL
    ‘She can speak (our language now).’

If something such as being sleekly fat is thought of as a good thing, then it is hard (though not in fact impossible) to say (9) in good Burmese, because that would imply ‘going away’ from some limit, a departure from a norm or ideal. Still, note that this is only a cancellable pragmatic implicature and not a strict implication (see Gazdar 1976). So, in addition to the resultative—inchoative distinction between ļ̐ lā ‘come’ and ĺ̐ wá ‘go’ as auxiliaries, there is additionally at least a pragmatic implicature that in this function ļ̐ lā ‘come’ supposes ‘arrival’ at some goal state, whilst ĺ̐ wá ‘go’ supposes ‘departure’ from a norm or ideal. Note, however, that this is not strict implication. Of course one can say (10) and this will commonly imply that this instance of fatness is not a good thing — maybe the speaker thinks being fat is unhealthy, or maybe the person referred to is just too fat for his/her own good.
The paradigmatic example would of course be (11), a standard way of commenting on a death.

\[\text{The paradigmatic example would of course be (11), a standard way of commenting on a death.}\]

It is always a bad thing to confuse pragmatics with grammar. Pragmatic constraints are about what it makes sense to say under certain assumptions about the world; that is not what grammatical constraints do.

This reminds me to remark on the relation between the use of these two auxiliaries in the above contexts and their use after verbs of specific manner of motion, such as သာခြင် 'leave' or စည်း 'enter' or လူးတွေ့ 'walk.' The two uses as auxiliaries of generalised movement verbs of directionality ကြွ လိုလော 'go' and ကြွ ⊲ဝ 'come' are very closely connected. So in principle, using ကြွ လိုလော 'go' and ကြွ ⊲ဝ 'come' as auxiliaries is often no different from using them after manner-of-motion verbs.

Comparing (12)a and (12)b, the first indicates leaving from 'here' to 'there' - 'went out', while the second indicates leaving, from 'there' to 'here' - 'came out'. It would be quite wrong to treat the use of these auxiliaries after verbs like ပိုးရွယ် 'know how to speak' or ကြွ ကြွ 'fat' in any way differently from their use after manner-of-motion verbs like သာခြင် 'leave' or စည်း 'enter' or လူးတွေ့ 'walk'.

Therefore, we cannot think of ကြွ လိုလော 'go' and ကြွ ⊲ဝ 'come' as grammaticalised aspectual markers, even though their semantics have aspect-like interpretative consequences. But this is no different from English, where we do not mark grammatical aspect morphosyntactically. We can say, 'He got fat,' which certainly means what we mean in Burmese by saying (13), namely that he definitely reached the state of being physically filled out.

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2 See Talmy (1987) for similar phenomena in such romance languages as French and Spanish, using generalised verbs of directional motion, with participials to indicate the manner of the movement (e.g. 'go slowly walking' as against English 'walk slowly').
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(g) ႏုိ်လောင်း Ⴒ်ပါစွဲ
မိုးလောင်း
ဗုဒ္ဓမွေ့ 'come'::PERF 'He got fat.'

Next, ႏိ kʰɛ ‘REMOTE’. There is no doubt that ႏ kʰɛ is the true morphosyntactic perfective aspectual marker in Burmese. Its semantic perfectivity is much more definitive than that indicated by the use of ႏः ႞ ‘finish’ as an auxiliary (see above). After all, if an event is ‘over and done with’ we cannot demand to know ‘how remote’ in either time or space it needs to be in order to be described correctly using this particle. I can say (14) with complete correctness, as long as I wish it to be understood that the circumstances of the offering are quite over and have nothing to do with my present state of affairs. Using ႏ kʰɛ is even better in (15), where the place of the nat offering is distinct from where I am now as I talk to you.

(h) ႏုိ်လောင်း ကျွန်ုပ် မိုးလောင်း ႀကီးမြောက်
this.morning I nat.to offer.REM.REAL
‘This morning I made an offering to the nat spirits’

(i) ႏုိ်လောင်း မိုးလောင်း ကျွန်ုပ်
this.morning home.from.NEG.go.before I nat.to offer.REM.REAL
‘This morning I made an offering to the nat spirits before leaving home.’

It is easy to show that ႏ kʰɛ does not absolutely require remoteness in time or place, though it was Comyn (1944), following Stewart (1936), who glossed this particle with the epithet ‘other times, other places’.3 So, for instance, in (16) ႏ kʰɛ is indeed a definitive-perfective, but the pragmatics of its use (and here I refer neither to its meaning nor the grammatical rule for its use — those are its syntactic selectional-subcategorisational requirements) is such that the more remote you make it seem in time and space/place, the better it is. The translation of (16) implies ‘I’ll go and fetch it at once – so directly or definitively that, for all intents and purposes, you can imagine it is indeed all done with even now!’

3 It occurs to me that one may properly explain the distinction between the two ways of marking perfective aspect (with ႏः ႞ pi.bi and with ႏ kʰɛ) as follows: The first is properly culminative as well as merely perfective, the second not particularly so. Thus, if I say ႏိုင်းဗုဒ္ဓမွေ့ Ⴍိုင်းဗုဒ္ဓမွေ့ tʰamin.sà.bi.bi rice.eat.finish.PRF 'I've eaten' it generally means not that I simply finished the action of eating but that I ate the meal up or ate as much as I could or wanted, whereas with ႏိုင်းဗုဒ္ဓမွေ့ sà.ge.dè eat.REM.REAL 'I ate' the event is all done with but I may not have reached the goal of finishing my meal. Of course, this distinction tends to collapse when the main verb does not necessarily have a culminative state, as with the compound verb ႏိုင်းဗုဒ္ဓမွေ့ tʰawé.8wá leave.go ‘go away’.
These are also the conditions that make it so very useful in conveying in Burmese what might be said in English by using the pluperfect: ‘When I had finished doing that, I [then] did something else,’ as in the two Burmese sentences in (16):

(k)

a. အခြင်း အပြင်မရန် စိုက်ပျိုးသည် အခြားသော အကြောင်း
that work do.rem.subord sleep.go.PERF
‘I only went to bed after I had completed that other task.’

b. အခြင်းမရန် (က) စိုက်ပျိုးခဲ့သည်
that time (in the past) I had (already) done (it).

One further remark: the distinction between fully grammaticalised ways of marking semantic aspect and marking it with what are still auxiliary verbs that keep their root meaning as an independent verb, is that with the latter, there is the option of placing negative ဗ- မ- immediately before the auxiliary. Thus (18) a. and b. are both grammatical.

(l)

a. စိုက်ပျိုးခဲ့သည်
leave.go.NEG.finish.yet
‘She did not leave.’

b. မစ်စိုက်ပျိုးခဲ့သည်
NEG.leave.go.NEG.finish.yet
‘She did not leave.’

Note however that here we find distinct evidence for how far ပါ: ပြန် is from full grammaticalisation: in order to say something like ‘I didn’t eat’ or ‘I didn’t finish eating’ we seem to have no option other than to treat ပါ: ပြန် as the main verb and then modify it with the aspect marker that indicates imperfectivity, i.e. ပါ: ထွေး ‘yet, still’, as in (19)a, but (19)b and (19)c are ungrammatical.

(m)

c. စိုက်ပျိုးခဲ့သည်
eat.go.NEG.finish.yet
‘I didn’t finish eating.’

Though of course as any student of Burmese knows, the answer to the question (20)a is simply (20)b.
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(a)

a. သမိခင်စံများ
   b. စာချာ
   
   သမိခင်စံများ
   စာချာ

   rice.eat.finish.PERF.Q-?
   (eat).finish.PERF

   ‘Have you eaten?’
   ‘I have [eaten].’

This shows that while ဖ်: ပေါ် effectively remains a verb when used for semantic (and non-definitive) perfectivity, its negation, which by definition entails imperfection, uses a genuinely grammatical aspect particle အာ: ထွေး. In this last regard, note that အာ: ထွေး marks imperfection especially strongly. It effectively makes the claim that one has ‘not yet’ done with the event. Ordinary, weaker imperfection is of course marked by an auxiliary verb, ကို နေ ‘dwell, remain’. Thus while (21)a ‘He still goes’ (i.e. ‘he’s not done with his going’) does not tell us if the going is done with, (21)b ‘He is going.’ can be said without any implicature of the latter question; and, of course (21)c literally and distinctively indicates that ‘(he) still remains going.’

(b)

a. ဝမ်းပံုတော်
   b. ဝမ်းပံုတော်
   c. ဝမ်းပံုတော်
   ဝမ်းပံုတော်
   ဝမ်းပံုတော်
   ဝမ်းပံုတော်

   go.yet.REAL
   go.CONT.REAL
   go.CONT.yet.REAL

   ‘He still goes.’
   ‘He is going.’
   ‘He is still going.’
   ‘He still remains going.’

One thing that complicates the way mode–aspect relates to real time, and the way aspectual particles relate to one another, is the fact that one can readily embed aspects within aspects, modes within modes, and so on. This, I think, is well understood. A perfective can be in irrealis mode, as in (22), though given such evidence, it would be easy to make the error of supposing that ဖွဲ့ ကြည့် were not in itself perfective.

(p)

laiʔ.ကြည့်.မည်

follow.REM.IRR

‘He still goes.’

There is no more problem in this than there is in the pluperfect or its equivalent in Burmese, as in (17)a above: ‘I only went to be after I had completed that other task’.

Finally, let me say a word or two about aspectual ကြည့် သား, which, in some sense, complements imperfective အာ: ထွေး (mentioned above, and see also Okell 1979). As we know, this particle indicates what ought to be called definite and, perhaps, ultimately inevitable, change of state, in the sense of the state diagram Figure 2 above; ‘abrupt’ only in the non-temporal sense that the change finally occurs after a possibly long period of expectancy. In this regard, it is useful to compare it to ဖွဲ့ (စာ) ဂိုး ‘further’, which indicates gradual or smooth transition of transition. Thus (23)a means ‘to go finally, no longer waiting for the act of going to start or become realis,’ whilst (23)b means ‘to go on or to proceed to go — not to hesitate in an action already inchoate.’
Therefore, we will say that these two are 'second order' aspectuals: they modify other, 'first order', markers of aspects such as perfect or perfective that indicate the basic three (θé, tó and óun) 'second order' particles qualify the states or transitions as to 'manner'. But of course this is complicated because a change of mode is also involved. (24)a indicates that an event which is currently irrealis will ultimately and definitively change to realis, whilst (24)b involves a modal change which is less sharp: what is now realis was until just a moment ago only 'waiting to occur,' that is to say irrealis.

But both tó and óun can also directly modify other aspectuals, as said above, as in (25), from Okell (1969: II, 444):

This certainly signifies that a change of state has taken place, from waiting for rain to start to a situation where rain has begun to fall. Two crucial observations here account for what would otherwise be an anomaly. Firstly, state-changes in the intended sense invariably and inevitably also involve a change of mode. Secondly, it is no accident that aspectual θ stands in verb-final position without any further modal ending: if there is a state-change from irrealis, then it is wholly redundant to mark the resulting state as realis. But at the other end of the state-space diagram, so to speak, we do need further marking with irrealis óun, since, after all, the change from imperfectivity to perfectivity involves no change of modality. We can repeat here that an event which is over and done with, owing to the irreversibility of real time, is irreversibly realis. Compare (26)a and (26)b:
Towards a formal cognitive theory of grammatical aspect in Burmese

a.

mōj.wā.bi

rain.rain.PERF

'It has rained'

(and the rain may or may not be over)

b.

mōj.wā.ge.de

rain.rain.REM.REAL

'It rained'

(and that is true, once and for all, forever)

Having said something about ကြာသော သင်္ကေတ, I feel obliged to mention another aspectual marker, ၃ မိ and also to say something more about ကြာသော သီချင်း. Since ကြာသော သီချင်း is more commonly treated as aspectual than is ၃ မိ, let me deal with the former first. ကြာသော သီချင်း is extremely interesting because there is a strong relationship between its peculiar function relating to the scope of negation on the one hand, and its complementarity with ကြာသော သင်္ကေတ, on the other, a relationship noted some years ago by Okell (1979). That is, ကြာသော သီချင်း really means that the event is 'not yet perfective' and so it is a second-order imperfective, again inchoative in the direction of perfectivity. This explains the complementarity to ကြာသော သင်္ကေတ because a definitive change of state cancels out the implication of ကြာသော သီချင်း. If, for instance it has finally (ကြာသော သင်္ကေတ) begun to rain, then, a fortiori, it is cannot still (ကြာသော သီချင်း) be 'waiting to rain'. At the same time, the scope of the negation is neatly accounted for: (26) does not mean 'not still going' but rather 'still not going'. The overt negation cancels out the implicit negation of ကြာသော သီချင်း so that the underlying meaning is close to 'not “not-yet finished” going.'

(u)

ma.wā.de.bu

NEG.go.yet.NEG

In a similar vein, the particle ၃ မိ, signifying an 'accidental' or 'inadvertent' (INADV) change of state is another second-order aspect marker, thus comparable to ကြာသော သင်္ကေတ. There is an interesting complementarity between the two particles. As we know, the sequence VERB-ကြာသော သင်္ကေတ VERB-ကြာသော သင်္ကေတ is questionable, and for some people ungrammatical.  However, there must be a way to express the sense that 'VERB is now/finally the case,' without at the same time indicating anything but realis mode, and without indicating of any aspect other than imperfectivity resulting from a perfect-aspectual transition. Sure enough, there is a way, namely (27): 'Ah! I am going/was going,' which might commonly be glossed as 'happen(ed) to go.'

(v)

wā.mi.de

go.INADV.REAL

'Ah! I am going/was going.'

It may be correct to describe ၃ မိ as a 'weak' equivalent of ကြာသော သင်္ကေတ in that it indicates definitive change of state with the implication that the change may have been accidental.

Expressions such as [x minutes] ကြာသော သင်္ကေတ သနာ.d₂.de remain.after.all.REAL ' [x minutes] now (finally, at last) remain' are for some speakers awkward; they would say ကြာသော သင်္ကေတ သနာ.d₂.bi remain.after.all.PERF.
(hence the gloss ‘happen(ed) to...’). A summary of the sense conveyed by မင္ and ကြာ သုဒိ is this: a state is arrived at by some other-than-inevitable means, happily, but not as it might have been. In the case of ကြာ သုဒိ, the sense of near-inevitability is at least nearer what is understood. Also, certainly in such expressions the result is conceptually imperfective, because the progression towards it is not necessarily more than started. This distinction between မင္ and ကြာ သုဒိ, located on the left side of the state diagram (Figure 2), is perhaps the reflex of a distinction which no analyst has yet dealt with, namely the distinction between perfective (over and done with) and culminative (final achievement of an entailed result). This treatment of မင္ and ကြာ သုဒိ owes a great deal to my correspondence with Anna Allott. Consider (29), the examples she has suggested:

\[(\text{w})\]

\begin{align*}
\text{a. } & \text{မင္မည်မင္} & \text{b. } & \text{ကြာမည်ကြာ} & \text{c. } & \text{ကြာမည်ကြာ} \\
\text{recognise, INADV} & \text{go, INADV} & \text{catch, INADV} \\
\text{'happened to recognise'} & \text{'happened to go'} & \text{'managed to catch/arrest'}
\end{align*}

As in Okell and Allott (2001:153), Allott (pers. comm.) assigns two different glosses to မင္, simply treating the two as homomorphs: ‘manage to’ in (29)a and ‘happen to’ in (29)b and c. These cases again involve a state of affairs which is somewhat accidental, not necessarily guaranteed or to be expected. It seems therefore that having two, independently glossed formatives can’t be correct. I suspect, but cannot claim forcefully, that the difference lies in the semantics of the verbs to which မင္ is affixed. One can hardly be said to catch or arrest someone without having had an intention or plan to achieve this result by means of various possible courses of action. The same applies to ‘recognise’ in its apparently intended sense of having tried to recall who or what someone or something is (hence ‘manage to...’). But as for ‘going’ in (29)b, the intention to go may or may not have been present beforehand; if one does find oneself going, either it is indeed quite inadvertent (‘happen to...’) or else one may have intended it without knowing that it would turn out to be possible in current circumstances, and in any case the result of actually ‘going’ is its own result and not the result, intended or otherwise, of any other independently definable course of action.

5 Conclusion

I think I have said enough to indicate, by examining a number (though hardly all) of the most interesting indicators of semantic aspectual distinctions for Burmese verbal expression, both morphosyntactic aspectual affixes and verbal auxiliaries, how in this language, aspect in general can, indeed should, be accounted for by a proper formal theory of semantic-syntactic aspect–and–mode. And with that, I rest my demonstration:

\[
\begin{align*}
\text{ပြုလုပ်ခဲ့ရ} \\
p.i.q.b.à.zè \\
\text{finish after all, POL.CAUS} \\
\text{‘The end’}
\end{align*}
\]
Burmese as a modality-prominent language

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1 Introduction

It is currently accepted that the grammatical categories tense, aspect and modality are related to each other. See Chung and Timberlake (1985): ‘Tense, aspect and mood are all categories that further specify or characterise the basic predication, which can be referred as the event. However, languages generally do not attribute the same importance to each of them: one category is usually prominent. Payne (1997) write that: ‘Some languages pay more attention to tense (e.g., English), others to aspect (e.g., Austronesian and African generally), others to mode (Eskimo), and still others to location and direction (many American, Australian, Papuan languages).’ According to Bhat (1999:91, 95), this prominence in a given language can be evaluated on the basis of three criteria (at least), namely degree of grammaticalisation, obligatoriness and pervasiveness.

Using Bhat’s criteria and Bybee’s theoretical framework on modality reviewed in light of my analysis of Burmese data, I intend to show that modality is the prominent category in Burmese, that is to say, according to Bhat’s typology, that Burmese is a ‘mood-prominent (or modality-prominent) language’. The terms mood (mode) and modality are often used interchangeably, though some linguists make distinctions among these terms. According to Bybee et al. (1994) or Palmer (1986), who refers to other linguists such as Lyons or Jespersen, ‘mood’ refers traditionally to a category expressed in verbal morphology as a grammatical or syntactic category, whereas ‘modality’ is considered as a notional one. Given that I refer here to the notion rather than the category, I will avoid the term ‘mood’ and use ‘modality’.

This article will deal with modality in standard Burmese spoken in Yangon. In section 2, I will give a brief definition of what I subsume under the term ‘modality’. My analysis of this category will be based on Bybee (1994:178ff.), De Haan (1997:4-9) and Palmer (1986:14-33), with some modification suggested by Burmese data. Then, in section 3 I will review the different morphemes occurring in Burmese verbal phrases to show that modality is highly grammaticalised. (In this paper I concentrate on modality expressions in the verb phrase; Vittrant (2004) shows that modality is grammaticalised elsewhere besides the verb phrase, for example in evidential sentence markers.) In section 4, I will
analyse the small class of obligatory verbal morphemes and come to the conclusion that they convey mainly modality. Then, in the section 5, using Bhat’s third criterion of pervasiveness, I will explore other parts of the grammar to show that modality is involved not only in what are usually called non-finite clauses or complement clauses, but also in relative clauses and nominalisation.

2 Definition of modality

A definition often proposed is that modality is the grammaticalisation of speakers’ attitudes or opinions (see Chung and Timberlake (1985), Bybee et al. (1994)). But according to recent cross-linguistic studies on the subject such as Palmer (1986:20-21, 51), modality covers a larger range of notions, and it is useful to distinguish different types of modality (see Bybee et al. 1994:2); also Payne (1997), Bhat (1999) and De Haan (1997). According to these authors and my analysis of Burmese, I will divide modality into three types that I have called, for the time being:

i. Clausal (or objective) modality;
ii. Subjective modality;
iii. Speech modality.

2.1 Clausal modality

The first type, clausal modality, deals with external constraints or internal conditions, compelling or enabling an agent to do the action expressed in the predicate. The modality expressed here is internal to the clause: it concerns the agent of the clause and has nothing to do with the speaker’s opinion or will. Clausal modality is also referred to as agent-oriented modality by Bybee et al. (1994:44), and as non-subjective or dynamic modality by Palmer (1986:102). It deals with semantic notions such as obligation, necessity, ability, and desire. In Burmese, morphemes such as မန္နာ ‘can’ and မယ္ဃာ ‘want’ are of this type, as in (1).

(1) မန္နာကဲ့ မယ္ဃာ
: ကြာတွင်
good.ADV² ဗျည်မှုသော
read.be_able.REA
L
‘[He] is able to read well.’

2.2 Subjective modality

The second type, subjective modality, refers to the relationship between the speaker and his or her utterance. Subjective modality may be divided into three sub-categories: epistemic modality, evidentials and what we have called, according to our Burmese data, appreciative modality. I agree with De Haan’s (1997) statement that ‘epistemic modality in terms of the speaker’s opinion or attitude leads to a very broad domain’. For this

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¹ The transcription of Burmese in this paper follows the conventions adopted throughout the volume. Earlier drafts of this article followed Bernot’s (1980) phonological transcription.
reason, I reserve the use of this term for ‘those categories that indicate the degree of commitment by the speaker to what he says’ and propose two other sub-categories for evidentiality and what De Haan calls ‘notions as the expression of satisfaction or dissatisfaction with the event or situation described’.

Epistemic modality indicates the speaker’s opinion or judgment regarding the actuality of an event, or to quote Bybee ‘the extent to which the speaker is committed to the truth of the proposition.’ (Bybee, 1985:179) It covers, amongst other things, the semantic notions of actuality (realis vs. irrealis; see section 1.4) and probability. In Burmese, for instance, this last notion can be expressed by the morpheme ကြာ 'OPTATIVE' in (2)

(2) ကြာ လာဖျင်မတ်
work.POL.OPT.IRR
'(They) may work.'

Evidentials may indicate the source of the information used by the speaker to claim that an event has occurred, or to quote Bhat ‘the kind of evidence that is available for the speaker to form a judgment.’ (Bybee et al. 1994:63) I have not found any specific morpheme which represents this category in the Burmese verbal phrase — which is the phrase I concentrated on in this article — although some quotatives or ‘hearsay’ morphemes can be used as sentence markers, and one verb-final morpheme conveys often, as a secondary value, an ‘action witnessed’ value (see の in (23)).

The sentence marker ကကသာ is used for reported speech as in (3)a but may indicate also that an event is known by hearsay, as in (3)b.

(3) a. နှစ် ကြာတွင် လာဖျင်မတ်
he.PL accompany.send_off.BEN.IRR. 'hearsay'
'[She] said that they would accompany [me].'

b. ကြာ ကြာ လာဖျင်မတ်
Hair.PL.all drop_off.all.EUPH.after_all.REAL. 'hearsay'
'[Apparently ~ I heard that] all his hair fell out after that.'

Finally, appreciative modality expresses a speaker’s feelings about what is happening. It includes evaluative statements such as approval, moral judgments such as indignation, feelings such as compassion, all about the event reported by the proposition. In Burmese, the verbal morpheme ကြာ 'COMPASSION' is an example of this category. It expresses the compassion of the speaker towards the agent of the event reported as shown in example (4).

(4) ကြာ ကြာ လာဖျင်မတ် ကြာတွင် ကြာတွင်
he bus.on.from roll.fall.ABS die.'go'.COMP.REAL
'After falling off the bus, he died [poor man]!'
2.3 Speech modality

The relation between the speaker and his addressee, or the speaker’s will or wish to interact with the addressee is dealt with in the last type: speech modality. This type is related to the speaker-oriented category in Bybee’s description of modality, and to subcategories of deontic modality (directive category, imperative) found in Palmer (1986:96-97). In the first sub-category of speech modality, we will include notions such as assertion (supply of information), interrogation (asking for information) and injunction (asking for action); illocutionary acts will be treated as a second sub-category. The definitions of modality in section 1.2 are summarised in (5).

(5) Categories of modality.

<table>
<thead>
<tr>
<th>(i) Clausal Modality</th>
<th>Objective modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal to the event</td>
<td>1 Agent-orientated modality</td>
</tr>
<tr>
<td></td>
<td>- ability, desire, obligation</td>
</tr>
<tr>
<td>(ii) Subjective modality</td>
<td>Relation between speaker and utterance,</td>
</tr>
<tr>
<td>External to the event</td>
<td>2a Epistemic modality</td>
</tr>
<tr>
<td></td>
<td>- Truth commitment: realis vs irrealis</td>
</tr>
<tr>
<td></td>
<td>- Degrees of probability: certainty / doubt</td>
</tr>
<tr>
<td></td>
<td>2b Evidential modality</td>
</tr>
<tr>
<td></td>
<td>- Source of the information</td>
</tr>
<tr>
<td></td>
<td>2c Appreciative modality</td>
</tr>
<tr>
<td></td>
<td>- Evaluation based on speaker’s feelings; moral judgment of the event</td>
</tr>
<tr>
<td>(iii) Speech Modality</td>
<td>Relation between speaker and hearer</td>
</tr>
<tr>
<td>Internal to the event</td>
<td>3a Sentence Modality</td>
</tr>
<tr>
<td></td>
<td>- Assertion: supply of information</td>
</tr>
<tr>
<td></td>
<td>- Interrogation: asking for information</td>
</tr>
<tr>
<td></td>
<td>- Injunction: asking for action; wish, permit, order</td>
</tr>
<tr>
<td>3b Illocutionary Acts</td>
<td></td>
</tr>
</tbody>
</table>

3 First criterion: modality as the most grammaticalised category

Having presented the theoretical background for this study, I move now to illustrate my claim that Burmese is a modality–prominent language. According to Bhat, different criteria may reveal the prominence of tense, aspect or modality in a particular language. His first criterion is the degree of grammaticalisation of these notions. Before looking at the Burmese verb phrase and its components, we must remember that Burmese has no grammatical category for person, and that marking plurality is largely optional both in verb and noun phrases.

Burmese is a ‘zero-pronominalisation’ language which allows sentences with no NP when arguments of the predicate can be inferred from the context (e.g. first and second person in a dialogue). Unlike ‘pro-drop’ languages such as Italian and Spanish, where the omission of pronouns may be replaced by a rich verb-agreement system which defines the subject, in Burmese there is no obligatory verbal agreement of person (though optional agreement of number is possible).

Marking plurality of an NP is not optional in the following contexts: a plural marker must appear whenever the NP is specified/determined/referenced (as opposed to not
referenced or not isolated). For instance, a noun or NP appearing with a relative clause or with the demonstrative တစ်တိုင် has to be specified for plurality. Moreover, a plurality marker must also appear on the NP whenever the verbal marker သတ်မှတ် appears in the sentence.

3.1 General structure of the Burmese verbal phrase

Verbal components are of two kinds: optional and obligatory. Obligatorily present are the main verb and the final verbal particle, and auxiliaries and/or verb particles may also additionally be present. (Although referred to here as 'verb particles', at least one of these particles can occur in nominative sentences, for instance, the politeness marker ကြက်; Bernot (1980) uses the term 'predicative' particles for them.) This formula may be represented as follows, with brackets indicating the elements which are not necessarily present:

\[(\text{VERB PARTICLE and/or AUX}) \text{ MAIN VERB (PART and/or AUX) FINAL VERB PARTICLE}\]

Now, we will look at the 3 notions, tense, aspect and modality 'that characterise the basic predication' (Chung and Timberlake 1985:202) and the various components of the Burmese verb phrase which I assume to convey mostly aspect and modality. Indeed, it is generally admitted among Burmese specialists that tense is not a relevant category for the analysis of the verbal phrase (see Allott 1965:288–89; Bernot 1980:57–58). This claim is exemplified in examples (6)a and b.

(6) a. နိုင်ငံပေါင်း နေရာများ နိုင်ငံတော်ကြီး ခြားစိတ်တန်း

နေပါပြီး နားလည်း နေရာများ နိုင်ငံတော်ကြီး

day.every Rangoon go.REAL

'[I] go to Rangoon every day.'

b. နိုင်ငံပေါင်း နေရာများ နိုင်ငံတော်ကြီး ခြားစိတ်တန်း

နေပါပြီး နားလည်း နေရာများ နိုင်ငံတော်ကြီး

yesterday Rangoon go.REAL

'Yesterday, [I] went to Rangoon.'

3.2 Verbal morphemes and grammaticalisation

Reviewing previous studies on the Burmese verbal phrase (Allott (1965) and Bernot (1980)), I have found around fifty morphemes which may occur as auxiliaries or verb particles in the verb phrase, that is to say morphemes that can appear in the following structure 'VERB + particle + FVP' or 'particle + VERB + FVP'. (FVP – Final Verbal Particles – are morphemes which are necessarily present in a verbal sentence, illustrated in section 1.4 below.)

I exclude from my set of auxiliaries and verb particles verbal modifiers such as နွေ which are used only in certain syntactic structures. Allott and Okell (2001) list of 70 verbal modifiers, analysed with regard to their syntactic behaviour and the register of language ( colloquial or formal Burmese) with which they are associated. For instance, they include in their list the morpheme နွေ (Okell and Allott 2001:108, နွေ 2) which appears doubled or followed by a comitative marker (နွေနွေ or ပြည်လိုင်), but never between a verb and a final verbal particle.
Some of these morphemes are grammaticalised verbs which can also occur independently as main verbs. For instance, in (7)a the verb ဗို ဗိုး ‘go’ retains its full lexical meaning whereas in (7)b it has been grammaticalised. Similarly, the morpheme ဗိုး ‘live’ has its lexical meaning in (8)a but has a grammatical function in (8)b.

(7) a. ဗိုး ဗိုး

zé.mà ဗိုး.၀ိ ဗိုး.အား.တဖ
market.in mango go.sell.REAL
‘(He) went (and) sold mangoes at the market.’

b. ဗိုး ဗိုး ဗိုး
ni.ဗိုး.၀ိ ကြ ဗိုး.၀ိ ဗိုး.၀ိ
red.RESULT.becaus car stop.
‘Yesterday, [I] went to Rangoon.’

(8) a. ဗိုး ဗိုး ဗိုး

bè.mà နာ.တလိ ဗိုး.၀ိ ဗိုး.၀ိ
where live.REAL.Q-
‘Where do [you] live?’

b. ဗိုး ဗိုး ဗိုး

sá.nè.dè ဗိုး ဗိုး ဗိုး
eat.CONT.REAL
‘[He] is eating.’

Some other elements have been grammaticalised to a greater degree, such that their lexical forms are obsolete or unrecoverable. Some of them may be identified diachronically as verbal in origin but they do not appear as main verbs any more. For instance the affixes ဗိုး ဗိုး ‘want’ or ဗိုး ဗိုး ‘dare’ were used as main verbs in classical Burmese, but in the modern language they are bound forms which cannot appear except in conjunction with another main verb. Another feature used to distinguish these bound elements from grammaticalised verbs (or auxiliaries) is negatibility, which is one of the universal criteria used for distinguishing verbs from verbal particles (see Matisoff 1991:392). The former cannot be independently negated whereas the latter can be preceded by the negation morpheme ဗိုး ဗိုး. Note that there is a phonetic distinction between free and bound verbal morphemes too. The bound type is subject to the voicing rule, such that the initial consonant, if unvoiced, may become voiced if the preceding syllable does not end in a glottal stop (i.e. carries any tone other than killed).

Grammaticalised verbs

Bernot gives a list of 33 auxiliary verbs, which she divides into two sets depending on whether they occur after the main verb (26 verbs) (Bernot 1980:287–88) or before it (7 verbs) (Bernot 1980:354). These pre-verbal auxiliaries, called ‘pre-verbs’ by other authors (for example Allott and Okell (2001)), are part of an open class of morphemes.
which have begun a process of grammaticalisation or lexicalisation. It is difficult therefore to include them in our evaluation of the most grammaticalised category. Bernot’s definition of auxiliary is based on the two following criteria, optionality and existence of an homophonous verb with related semantic content (Bernot 1980:281–288). I propose to add to this list some other morphemes, according to Allott (1965:303–306). I do not take into account Allott and Okell (2001) when reviewing the list of verbal auxiliaries, because this work appeared only after the main draft of this article was written.

I have excluded the verb .mcə'begin' from my list, as it seems to me that the uses of this verb described by Bernot (1980:360–361) are cases of verb juxtaposition. The inceptive aspect of .mcə is lexical and not due to grammaticalisation. This may be corroborated by applying the negation test to determine the degree of grammaticalisation: (9)a is possible while (9)b is ungrammatical:

(9) a. စိမ်ပူတာ စွဲနိုင်မှု စိမ်ပူတာ စွဲနိုင်မှု
start.NEG.work.NEG start.NEG.work.NEG
[He] does not start to work.

b. စိမ်ပူတာ စွဲနိုင်မှု
start.NEG.work.NEG
[He] does not start to work.

The main meaning of each auxiliary is given in (10), and the grammatical category it belongs to, according to my analysis. To verify my hypothesis, I tried to classify all these morphemes, auxiliaries plus verbal particles in (10) and (11) below. I decided not to deal with multi-valued morphemes in this paper, although I have noticed that some of them convey different values depending on the context. Moreover, the analysis I give for the aspectual values can be considered only preliminary. I will use labels such as progressive, perfective, perfect, durative, inceptive, completive, iterative that are not controversial and for which a definition is commonly accepted. I will use Payne’s (1997:238ff.) definitions of these terms. I will also use certain labels in a broad sense (such as ‘boundaries’ which will be used here an a generic term for either ‘cessative’, ‘continuative’ and ‘prospective’ aspects, given that these aspects refer to limitation, closure, or the boundaries of an event. Some of these notions of aspect are described by Payne (1997:239–41) as follows:

‘In perfective aspect the situation is viewed in its entirety, independent of tense. [...] In imperfective aspect the situation is viewed from ‘inside’, as an ongoing process. Habitual and progressive aspects are subtypes of imperfective. [...] Completive aspect expresses the completion of an event. Similarly, inceptive aspect expresses the starting point of an event. [...] Continuative or progressive aspect implies an ongoing, dynamic process. [...] Iterative aspect is where a punctual event takes place several times in succession.’

See Comrie (1976:64), Chung and Timberlake (1985:213–40) and Cinque (1999:94–100) for further description of cited aspects. Arriving at a comprehensive definition of aspect in Burmese is beyond the scope of the present paper, and so just the basic value of each morpheme is given, in (10), (11) and (12) below. The definitions for each morpheme appearing in Bernot (1980) are based on her original descriptions. For those morphemes not on her list, I have used Allott's descriptions. Rare morphemes, or those used exclusively in the written language, are shaded. The categorisation of modality in the right hand column follows the schema in (5), thus:
Modality 1 = clausal modality;  
Modality 2a = epistemic modality;  
Modality 2b = evidentiality;  
Modality 2c = appreciative modality.

(10) Auxiliary verbs in Burmese: Post-verbal Auxiliaries

<table>
<thead>
<tr>
<th>Burmese</th>
<th>meaning as main VERB, as AUXILIARY; description according to Bernot 1980</th>
<th>category</th>
</tr>
</thead>
</table>
| ၽהמל | VERB: to stay, to dwell  
AUX: continuing action, progressive event  
’se réfère au cours même du procès ou à sa répétition’ | Aspect: progressive; durative |
| ဝတွေတွေ | VERB: to come  
AUX: inceptive, progression of the event  
’dévenir d’un état, ou progression dans l’action’ | Aspect: progressive; inceptive |
| မီးမီး | VERB: to follow  
AUX: pursuing the action to its logical conclusion  
’poursuite du procès jusqu’à son terme logique’ | Aspect: completive |
| ပြ || VERB: to be, to become, to happen, to occur  
AUX: to manage to V, to consider doing V, ability to V  
’aspect effectif du procès: accompli’ | Modeity 1 |
| ကြာမြင် | VERB: to finish  
AUX: completion of the action  
’accompissement du procès’ | Aspect: perfective |
| မော်မော် | VERB: to go  
AUX: resultative, terminative, perfect  
’irrémediable, décisif, accompli et instantané’ | Aspect: perfect |
| မော်မော် | VERB: to put  
AUX: completed action for which a present result is implied  
’implique que le procès a un résultat’ | Aspect: perfect |
| ပြ || VERB: to throw (away), to pull  
AUX: event completed  
’procès exhaustif ou suppressif’ | Aspect: completive |
| ပြ || VERB: to be beautiful  
AUX: (stative verbs only) superlative  
’superlatif (avec verbe d’état)’ | Modeity 2c |
| လွှေးလွှေး | VERB: to be enough  
AUX: information on the quantity of the event (enough), probability  
’équivalence, suffisance (formules usuelles)’ | Modeity 2c, 2a |

2 Bernot describes this auxiliary as conveying an aspectual value. She does not comment on the modality that it conveys today in spoken Burmese, although Allott (1965) describes the ‘manage to’ meaning of this morpheme.

3 ‘Perfect’ is defined as an aspect which ‘normally describes a currently relevant state brought about by the situation (normally an event) expressed by the verb.’ (Payne, 1997:239).
<table>
<thead>
<tr>
<th>Morpheme</th>
<th>Verb</th>
<th>AUX</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>kàun</td>
<td>to be good</td>
<td>good quality of the event</td>
<td>2c</td>
</tr>
<tr>
<td>mì</td>
<td>to grab, to catch, to bump into</td>
<td>unexpected event, non-volitional</td>
<td>1 (non-volitional)</td>
</tr>
<tr>
<td>āja</td>
<td>to get, to obtain</td>
<td>possibility, obligation (external)</td>
<td>1</td>
</tr>
<tr>
<td>nàin</td>
<td>to dominate, to surpass</td>
<td>possibility, ability (can, to be able)</td>
<td>1</td>
</tr>
<tr>
<td>taʔ</td>
<td>to know</td>
<td>natural or learned ability, habitual</td>
<td>1</td>
</tr>
<tr>
<td>tɛi</td>
<td>to look (at)</td>
<td>to try to V,</td>
<td>?1 or aspect4</td>
</tr>
<tr>
<td>ēje</td>
<td>to be brave, daring, bold</td>
<td>to dare to V, not to be afraid to V</td>
<td>2c</td>
</tr>
<tr>
<td>sè</td>
<td>to ask for, to order</td>
<td>allowed action, wished action</td>
<td>3</td>
</tr>
<tr>
<td>kʰain</td>
<td>to cause to V</td>
<td>factitive</td>
<td>3 or Voice?</td>
</tr>
<tr>
<td>sán</td>
<td>to test, to put to the test</td>
<td>attempt to realise V</td>
<td>3</td>
</tr>
<tr>
<td>pé</td>
<td>to give</td>
<td>action for the benefit of a recipient</td>
<td>Benefactive</td>
</tr>
<tr>
<td>kʰè</td>
<td>to be hard, solid, robust</td>
<td>to have difficulties to V</td>
<td>2c</td>
</tr>
<tr>
<td>koun</td>
<td>to be used, finished, not available anymore</td>
<td>complete action, totally completed action</td>
<td>Aspect: completive</td>
</tr>
</tbody>
</table>

4 Morphemes expressing that the State of Affairs (SoAs) is attempted but not finished may belong to modality or to aspect depending on the authors we refer to (See Bybee and al. (1994) for instance). However although Burmese morpheme သည် တောင် do convey the attempt idea, it does not give any information on the finiteness of the SoAs.
<table>
<thead>
<tr>
<th>Burmese</th>
<th>French Equivalent</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြာ</td>
<td>verb: to desire, to miss</td>
<td>Modality 1</td>
</tr>
<tr>
<td>aux: need, desire</td>
<td>'auxiliaire du besoin, du désir (rare)'</td>
<td></td>
</tr>
<tr>
<td>ရွှေကြာ</td>
<td>VERB: to be easy</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>AUX: to be easy, to have an aptitude to V</td>
<td>'exprime la facilité (rare)'</td>
<td></td>
</tr>
<tr>
<td>ကြက်</td>
<td>VERB: to fall, to happen</td>
<td>Aspect: iterative</td>
</tr>
<tr>
<td>AUX: regular occurrences of an event (usually follows စင့်)</td>
<td>'(formule) aux. d'occurrence régulière (rare)'</td>
<td></td>
</tr>
</tbody>
</table>

(11) Auxiliary verbs in Burmese: Bernot's second set of auxiliaries

<table>
<thead>
<tr>
<th>Burmese</th>
<th>French Equivalent</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ယောက်စော</td>
<td>VERB: to join, to be continuous, to combine</td>
<td>Aspect: continuative</td>
</tr>
<tr>
<td>AUX: gerund, continuing to V</td>
<td>'gérondif ou 'en continuant, en poursuivant''</td>
<td></td>
</tr>
<tr>
<td>ရွှေကြက်</td>
<td>VERB: to add</td>
<td>Aspect: iterative</td>
</tr>
<tr>
<td>AUX: V again</td>
<td>'de nouveau', 'une fois de plus'</td>
<td></td>
</tr>
<tr>
<td>ပို့ပြေ</td>
<td>VERB: to be more, to be superior</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>AUX: superiority comparison</td>
<td>'comparatif de supériorité'</td>
<td></td>
</tr>
<tr>
<td>ကြက်မှတ်</td>
<td>VERB: to spread</td>
<td>Spatial</td>
</tr>
<tr>
<td>AUX: to V from a distance</td>
<td>'prolonge le procès dans l'espace'</td>
<td></td>
</tr>
<tr>
<td>စိတ်စော</td>
<td>VERB: to compress, to stuff</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>AUX: very V, so V</td>
<td>'procès porté à un haut degré, excès'</td>
<td></td>
</tr>
<tr>
<td>ပြောင်နေ</td>
<td>VERB: to return</td>
<td>Aspect: iterative</td>
</tr>
<tr>
<td>AUX: V back; V again</td>
<td>'procès en sens inverse ou différent'</td>
<td></td>
</tr>
</tbody>
</table>

---

5 Bernot (1980:358) notes that the lexical meaning of this verb is quite far from that of its grammaticalised form, but she gives examples of sentences where စိတ်စော behaves syntactically in the same way as a main verb (subordinated with ဖြင် or ကြက်သာ) but keeps the grammaticalised meaning. She suggests that the main verb စိတ်စော with this meaning is obsolete: it may be developing into a verbal particle rather than an auxiliary.

6 ပြောင�နေ can precede or follow the main verb, with a slight difference in meaning. See Okell and Allott (2001:134–135) for examples.
(12) Auxiliary verbs in Burmese: morphemes added by the author to Bernot’s list 7

<table>
<thead>
<tr>
<th>Verb</th>
<th>AUX:</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြည်ခြင်း</td>
<td>to be bold, swift or decisive</td>
<td>(2c)</td>
</tr>
<tr>
<td></td>
<td>to show a lack of consideration, to dare</td>
<td></td>
</tr>
<tr>
<td>ထွက်ခြင်း</td>
<td>to be pleasant, peaceful, to exceed, to excel</td>
<td>(1) or (2c)</td>
</tr>
<tr>
<td>ဖြစ်ခြင်း</td>
<td>to be feasible, to V easily, to denote faisability or possibility</td>
<td></td>
</tr>
<tr>
<td>ကျားခြင်း</td>
<td>to be proper, to be appropriate</td>
<td>(2c)</td>
</tr>
<tr>
<td></td>
<td>to be suitable, right to, should (formal Burmese)</td>
<td></td>
</tr>
<tr>
<td>နှစ်ခြင်း</td>
<td>to be vacant, free</td>
<td>(2c)</td>
</tr>
<tr>
<td></td>
<td>to have the heart to V, be callous enough to V (formal Burmese)</td>
<td></td>
</tr>
<tr>
<td>ကျော်ခြင်း</td>
<td>to be worth, to deserve</td>
<td>(2c)</td>
</tr>
<tr>
<td></td>
<td>to fit in, deserving of</td>
<td></td>
</tr>
</tbody>
</table>

In my analysis, 22 of the morphemes in these lists convey modality, 12 convey aspect, and 3 convey other values (benefactive, spatial, voice?).

Verb particles
The bound-form category of verbal morphemes includes six of the kind which are necessarily present in a verb phrase and nineteen which can occur non-obligatorily. After illustrating the use of the non-obligatory verb particles with examples, I will give a brief analysis of the value conveyed by each optional affix. The six (sentence)-final verb particles (FVP), one of which is obligatorily present in any verb phrase, are discussed in section 1.4.

In (13), there are two non-obligatory particles between the main verb and the final verb particle (FVP), and one each in (14) and (15).

(13) မြန်မာ့နိုင်ငံတွင် ဝယ်ပူး ရော်မြို့ အမျိုးမျိုး ချိုးချိုးချိုး
မြန်မာ့နိုင်ငံအသံများ ရော်မြို့ အမျိုးမျိုး ချိုးချိုးချိုး
Burma.country.to arrive.EXP.PL.REAL
‘[They] (~we etc) have already been to
Burma.’

(14) ကျော်င်းခြင်း
ကျော်င်းခြင်း
ဗိုလ်ရောက်နေပြည်
go.after_all.IRR
‘[I] am leaving’~‘I will go (then)’ (Said when departing)

7 The first term is originally classified as a verbal particle and not as an auxiliary by Bernot (1980:212-267). The others come from Allott (1965). I found five terms in her list which are not included in Bernot (1980). Some are rarely used these days or only found in written Burmese.
(15) **sá.lún.dè**

*eat.exceed.REAL*

'[He] eat(s) too much!'

(16) lists the non-obligatory verb particles with their basic values according to Bernot (1980), and the functional category to which I have assigned them, as in (10).

(16) Non-obligatory verb markers.

<table>
<thead>
<tr>
<th>Burmese</th>
<th>meaning</th>
<th>category</th>
</tr>
</thead>
<tbody>
<tr>
<td>င်းခွဲခြင်း</td>
<td>probability of the event</td>
<td>Modality 2a</td>
</tr>
<tr>
<td>လေးင်</td>
<td>'procès très probable où le locuteur n'est pas acteur'</td>
<td></td>
</tr>
<tr>
<td>ရိုးစိသောက်</td>
<td>to desire, to wish, to feel like</td>
<td>Modality 1</td>
</tr>
<tr>
<td>လီးင်</td>
<td>'désirer, avoir envie de'</td>
<td></td>
</tr>
<tr>
<td>ခိုး</td>
<td>to dare speaker's judgement on the event</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>ဝိုင်း</td>
<td>'oser jugement du locuteur sur le procès'</td>
<td></td>
</tr>
<tr>
<td>ကျွန်း</td>
<td>imminent and unavoidable event</td>
<td>Aspect: prospective (at boundaries)</td>
</tr>
<tr>
<td>တွဲ</td>
<td>'procès imminent, inévitable'</td>
<td></td>
</tr>
<tr>
<td>လူးချောင်း</td>
<td>to be in excess quality or state</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>လိုင်</td>
<td>'dénote l'excès dans la qualité ou l'état'</td>
<td></td>
</tr>
<tr>
<td>ရောင်း</td>
<td>compassion of the speaker</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>ရောက်</td>
<td>'marque affective, façon de voir du locuteur'</td>
<td></td>
</tr>
<tr>
<td>ပေါ်</td>
<td>politeness</td>
<td>Modality 2c</td>
</tr>
<tr>
<td>ပေါ်</td>
<td>'attitude polie du locuteur'</td>
<td></td>
</tr>
<tr>
<td>ပြု</td>
<td>experiential marker; completed event</td>
<td>Aspect</td>
</tr>
<tr>
<td>ပြား</td>
<td>'procès constaté, expérimenté antériorité-accompli'</td>
<td></td>
</tr>
<tr>
<td>နောင်</td>
<td>boundary of the event; event occurred before or after time of utterance</td>
<td>Aspect (at boundaries)</td>
</tr>
<tr>
<td>စောင်းချောင်း</td>
<td>'démarcation: situation antérieure-postérieure au discours'</td>
<td></td>
</tr>
<tr>
<td>နောင်</td>
<td>change of state</td>
<td>Aspect</td>
</tr>
<tr>
<td>နောင်</td>
<td>'différentiation: tournant, transition, mouvement'</td>
<td></td>
</tr>
<tr>
<td>နောင်/နောင်</td>
<td>new stage of an action; repeated event</td>
<td>Aspect: iterative</td>
</tr>
</tbody>
</table>

8 On 'boundaries' or 'limitation' see Chung et al. (1985:213, 217):

'A basic concept in aspect can be described in terms such as boundedness, limitation, holicity, completion and the like. [...] closure means simply that an event comes to an end and before some temporal point or within the confines of some temporal point. [...] Applied to states, closure implies a complete change of state, specifically inception rather than cessation.'
In my analysis of these nineteen markers, nine convey modality, nine convey aspect, and the remaining one is the plural marker သမအ.

**Discussion of verbal affixes**

Bhat’s first criterion (Bhat, 1999:95-96) states that prominent categories should be the most grammaticalised. I take Burmese to be a modality prominent language, with the implication that:

(a) verbal morphemes should mainly convey modality,

(b) verbal particles should grammaticalise modality more than the other affixes (i.e. auxiliaries) and should provide, in proportion, more modal morphemes, given that they are more grammaticalised.

As predicted by Bhat’s first criterion (grammaticalisation), the majority of the affixes reviewed convey modality. Indeed, thirty-one non-obligatory affixes and at least five of the ‘obligatory’ affixes (discussed in section 1.4) convey mainly modality, while only twenty-one convey aspect. The negative morpheme ဗ...ဗီ... ဗီ used in declarative sentence may not be considered as part of modality. However the morpheme used for negative imperative ဗ...ဗီ... ဗီ conveys ‘speech modality’.

(17) shows the functional distribution of verbal affixes:
(17) Grammaticalisation of modality and aspect

<table>
<thead>
<tr>
<th></th>
<th>non-obligatory verbal morphemes</th>
<th>obligatory verbal morphemes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>verbal particles</td>
<td>auxiliaries</td>
</tr>
<tr>
<td>modality</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>aspect</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>other</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

With regard to the criterion of degree of grammaticalisation, verbal particles — which are the most grammaticalised affixes — should provide a greater number of affixes expressing modality to verify the Bhat criterion. Taking into account the totality of verbal particles (i.e. obligatory and non-obligatory particles), modality is grammaticalised to a greater extent than aspect — but notice that taking into account only non-obligatory verbal particles, the two categories are both equally grammaticalised and provide the same number of affixes. (18) shows the variation in degree of grammaticalisation of verbal affixes.

(18) Degrees of grammaticalisation

<table>
<thead>
<tr>
<th></th>
<th>auxiliaries</th>
<th>verbal particles (bound morphemes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>non-obligatory</td>
</tr>
<tr>
<td>modality</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>aspect</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

4 The prominence of a category revealed by the criterion of obligatoriness

A well-formed verbal phrase in Burmese consists minimally of, at least, one main verb plus a (sentence)-final verb particle (FVP), as in (19). Unlike Allott and Okell (2001) who list 40 sentence markers, we distinguish verbal final particles from the large group of markers that can occur at the end of a sentence take. This distinction is based on syntactic and distributional criteria.

(19) प्‌हाड़त्‌ते
read.REA
L
‘[I] read.’

Burmese has six main (sentence)-final verb particles (FVP). They are mutually exclusive, which is not the case for the non-obligatory markers reviewed above (see, for example, (13)). At least one of them must be present for a verb phrase to be well-formed. Two of them are negative and a zero morpheme occurs in this slot as well, that is to say the absence of a final verbal particle stands for the imperative. As noticed by other authors (Bernot 1980:137–140; Wheatley 1982:226–27), it does exist other FVPs. Some of them have undergone a narrowing of function, and are related to one of the six main ones. For instance, the particle ကြည့် ကွ in related to the FVP conveying statement. The other FVPs that
are not listed here, are either frozen expressions such as ဗှုလာမှုန် or ဗျာစီပြဲ, or either complex expressions containing reduced forms of the main FVPs, as ကြာချင်တာသို့ ကြည့်တားလိုပ်။

Of course Burmese also has nominal sentences where no verb or copula is required, such as existential predication as in (12), where no main verb or copula is required and therefore no (sentence)-final verb particle (FVP) either. In such sentences the final noun phrase serves as the predicate. It can be either followed by the polite particle ကပြား or not as shown in (20).

(20) a. မိုး သို့မဟုတ် b. သို့မဟုတ် c. သို့မဟုတ်
    သို့မဟုတ် သို့မဟုတ် သို့မဟုတ်
    he teacher.POL teacher.POL teacher
    'He is a teacher.' 'He' is a teacher.' 'He' is a teacher.'

The six final verbal particles (FVP) are illustrated by the following examples. FVP occurring in assertive sentences are given in (21): (21)a, b and c contain affirmative FVPs, while (21)d contains a negative one. (22)a shows the markedness of the absence of any final verbal particle, and (22)b is an example of a negative imperative.

(21) a. ကြာချင်တာသို့မဟုတ်
    လား, ချင်တာသို့မဟုတ်
    come.REAL
    'He comes (~ came).'

b. ကြာချင်တာသို့မဟုတ်
    လား, ချင်တာသို့မဟုတ်
    come.PERF
    'He has come'; 'Here [he] is!'

c. ကြာချင်တာသို့မဟုတ်
    လား, ချင်တာသို့မဟုတ်
    come.IRR
    'He will come.' 'He would come' (if...)

d. ကြာချင်တာသို့မဟုတ်
    လား, ချင်တာသို့မဟုတ်
    NEG.come.NEG
    'He does~did~will not come.'
The values of the final verb particles (FVP) are summarised in (23).

(23) Final verb particles and their allomorphs

<table>
<thead>
<tr>
<th>particles and allomorphs</th>
<th>function</th>
</tr>
</thead>
<tbody>
<tr>
<td>_modifier</td>
<td>Modality 2a 'realis' + 3a 'assertive'</td>
</tr>
<tr>
<td>_modifier</td>
<td>Modality 2a 'realis'</td>
</tr>
<tr>
<td>_modifier</td>
<td>Modality 2a 'realis' + 3a 'interrogative'</td>
</tr>
<tr>
<td>_modifier</td>
<td>Modality 2a 'irrealis' + 3a 'assertive'</td>
</tr>
<tr>
<td>_modifier</td>
<td>Modality 2a 'irrealis'</td>
</tr>
<tr>
<td>_modifier</td>
<td>Modality 2a 'irrealis' + 3a 'interrogative'</td>
</tr>
<tr>
<td>_modifier</td>
<td>Modality 2a 'realis' + change evident at the time of the utterance [secondary value: Modality 2b (evidential: seeing, hearing)]</td>
</tr>
<tr>
<td>_modifier</td>
<td>Negation (neutralisation of Modality 2a)</td>
</tr>
<tr>
<td>_modifier</td>
<td>Negation + injunction</td>
</tr>
<tr>
<td>_modifier</td>
<td>(Negation + exclamation)</td>
</tr>
<tr>
<td>- O</td>
<td>Zero-morpheme stands for injunction (Mod (1))</td>
</tr>
</tbody>
</table>

Notice here that Burmese data point to a relationship between negation and modality. The link between tense–aspect–modality and negation has been already noted by Bybee (1985:179), Hartzler (1994:52–53), Payne (1997:283–293), Palmer (1995:454–471) and Forest (1993:130–133), as has the interaction between negation and modality by De Haan (1997:129–139). The Burmese data seem to corroborate these relationships in suggesting that negation can be analysed as a kind of modality, but this hypothesis remains to be confirmed or invalidated by substantial further work on Burmese and other data. The negative verbal particle is in complementary distribution with the other particles which all convey different kinds of modality: subjective modality (epistemic and evidential modalities) and speech modality. All these morphemes seem to belong to the same slot.

The analysis of the final verb particles (FVP) summarised in (23) shows that epistemic modality and speech modality are the main notions expressed by the ‘obligatory’ verbal markers, e.g. FVP, in Burmese. Returning now to the criteria of obligatoriness, we will see that modality is undoubtedly the more obligatory category in Burmese.

---

9 Bernot (1985:163) called these morphemes ‘modal markers of exclamatory speech’. They are used in expressive discourse, but they also occur in nominalised and completive clauses and sometimes replace modifier in interrogative clauses.

10 This negative form can be found in ‘exclamatory speech.’ Bernot (1980:164) notes that this form does not appear very often in her data; this is true for my data also.
5 The pervasiveness of modality as a category in Burmese

5.1 Nominalising clauses

I will present epistemic modality as an example of the pervasiveness of modality in Burmese. Indeed, the fundamental distinction in Burmese between realis and irrealis appears in nominalised clauses also (see also Vittrant (2002)).

Various nominalising processes are found in Burmese. ၃ သာ 'he/she' forms an agentive noun phrase, while ရာသား is a prefix used to derive nouns from verbs. There are other ways of creating noun phrases with particular syntactic properties. For the purposes of the present paper, the most interesting nominalising processes are those conveying epistemic modality. They are placed at the end of the clause, as are most nominalisers, and have the same form as the FVPs that convey only realis/irrealis modality and not ASSERTIVE modality (see (23)). (24) contains two occurrences of the realis morpheme က သာ used as nominaliser of the verbs 'to settle' and 'to fall' respectively. The two sentences presented in (25) illustrate the process used to focus on a temporal phrase, that is to say the nominalisation of the clause and the use of epistemic markers as nominalisers.

(24) က သည် က သည် က သည် က သည် က သည်
婚姻 လုပ်မစ် လုပ်မစ် က သည် က သည်
mas.su.ဗား.ဗား
‘Isn’t getting married worse than going to jail?’

(25) a. မွှားသား နွား အတွက် ကျူးစေ်ဗွ သား အတွက်
tomorrow he.with wear.must REAL NOM NEG comfortable.NEG
twè.mè
‘I will meet with him tomorrow.’

b. သား အတွက် ကျူးစေ်ဗွ သား အတွက်
he.with wear.must I meet.IRR
twè.mà
mane?pu.ján.bà
‘I will meet with him tomorrow.’
lit: ‘My [future] meeting with him, it is tomorrow.’

In the following examples (26)a–b and (27)b, the epistemic markers က သာ and က သာ are required to nominalize the clause used as the verb’s complement. Therefore they can be viewed as complementisers, which leads us to say that the realis–irrealis distinction is also relevant for some dependent or ‘non-finite’ clauses.

(26) a. မှုသားသား ကျူးစေ်ဗွ သား ကျူးစေ်ဗွ
shoes wear.must REAL NOM NEG.comfortable.NEG
‘Having to wear shoes is not comfortable’
‘To have to wear shoes is not pleasant.’
5.2 Relative clauses

Similarly, in relative clauses, we find the same epistemic (realis vs. irrealis) distinction expressed by the relativizer itself, as in (28)a–b and (29)a–b.

(28) a. မီးမြား မြင်ရောင် လေး
Momo see.REAL ATTR person
‘the person who(m) Momo saw’

b. မီးမြား မြင်ရောင် လေး
Momo see.IRR ATTR person
‘the person who will (~would) see Momo.’

(29) a. ကြားခြင်း မြင်ရောင် လေး
I borrow.REAL ATTR tape watch.IRR
‘I will watch the video that I rented.’

b. မီးမြား မြင်ရောင် လေး
Momo see.IRR ATTR person
‘I will watch the video that I am going to rent.’

As shown by previous examples, Burmese uses, as relativisers, the markers that merge epistemic modality (2a) and assertive modality (3a) (see (23)) with a slight phonological difference. The relativizers are marked with grammatical tone to indicate subordination. Note that this grammatical tone is also found in possessive structures to mark a human possessor, and in some verb–complement structures to mark a human argument, as
described by Allott (1967:159-161). The grammatical use of the creaky tone has also be
noted by Okell (1969:18) and Bernot (1980:26).

6 Conclusion

The use of Bhat’s first criterion (grammaticalisation) to reveal the prominence of a
category in a specific language was relevant to my claim. Taking into account the all the
verb markers of Burmese, Bhat’s first criterion points to the prominence of modality in
Burmese. Bhat’s second criterion (obligatoriness) also confirms the prominence of
modality as the most obligatory category in Burmese. Thirdly, modality is pervasive in
Burmese, being involved in nominalisation process and in relative (and complement)
clauses.

The use of Bhat’s criteria leads to a classification of languages into three ‘idealized’
types according to the prominence that each language gives to one or the other of the three
major verbal categories, i.e. tense, aspect and modality, although the author agrees with
Bhat (Bhat 1999:103) that ‘it is quite possible for some languages to remain outside of this
classification either because they give equal prominence to two or more of these
categories, or because they select some other verbal category, such as location or
viewpoint as the most prominent category.’

Thus Dravidian languages, Indo-European languages such as English or German, and
Uralic languages such as Finnish, for all of which which the grammatical category of
Tense is the most grammaticalized and/or pervasive and/or obligatory, could be classified
as tense–prominent languages (Bhat 1999:105–120). English, for instance, shows in its
verbal inflectional system a basic distinction between past and present (non-past), and
aspect and modality distinctions are not grammaticalized to the extent to which tense
distinctions are grammaticalised.

Hmong, Sanskrit, Supyire and Koromfe (two languages of the Gur sub-branch of Niger-
Congo languages) on the other hand are good candidates to illustrate the aspect–prominent
type of language, as they give prominence to the grammatical category of aspect.

A re-examination of some North-Iroquoian languages and some Mayan languages
such as Q’eqchi, leads to consider them as modality–prominent languages, since they make
a basic modal distinction rather than a temporal one (Bhat 1999:132–133).

Coming back to Burmese, then, my claims about this language were informed by
applying Bhat’s criteria to reveal the most prominent category. Taking into account all the
verbal affixes, Bhat’s first criterion (grammaticalisation) points to the prominence of
modality in Burmese. His second criterion (obligatoriness) also confirms the prominence of
modality as the most obligatory category in Burmese, (i.e. we find that three out of the
four obligatory morphemes in Burmese express modality). Additionally, modality is
pervasive in Burmese, involved in the nominalization process and in relative (and
complement) clauses. The application of Bhat’s criteria leads us to conclude that modality
is indeed the prominent category in Burmese, although aspect is important.

This study also illustrates that the Burmese data that I have collected could support the
idea of negation as a kind of modality.
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Topicalisation in Burmese expository discourse

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1 Topic and Information Status

1.1 Topic-Comment Propensity in Burmese

Many Asian language families — Sino-Tibetan, Japanese, Austronesian, Tai-Kadai and Mon-Khmer — have often been regarded as topic-prominent languages which emphasise information structure, rather than subject-prominent languages such as English and other European languages which emphasise morphosyntactic structure. Topic-prominence often takes the sentence form of Topic–Comment rather than Subject–Predicate. What distinguishes Topic–Comment structure is that topic is rarely agentive or strongly transitive, in the sense of force dynamics (Talmy 1985).

Burmese tends to be only weakly transitive, as Matisoff (1976) noted for Lahu and some other Tibeto-Burman languages. The semantics of transitivity have been understood from a whole-scene viewpoint, with explicit mention of the source and/or goal as key elements within that viewpoint (DeLancey 1982). Rather than being highly causative, or requiring mention of the source of an action, Burmese sentences and discourses tend to be more focused on the result end of the transitivity spectrum. Though not morphologically ergative, Burmese tends to be semantically absolutive. Many verbs can be used transitively or intransitively, being based more upon the cognitive viewpoint of the speaker than upon the grammatical requirements of a dichotomous transitivity system. The Topic–Comment structure of Burmese is also related to the speaker's cognitive point of view with focus on the result end of the action stream. It appears that the preferred orientation of the language is to take a viewpoint that leaves out the agent/causer and by inferring that role semantically it can have stronger pragmatic force when an explicit mention is made. Topic prominence then follows from a generalised propensity to not mention the agent and to focus on the resulting state of affairs.

1.2 Various definitions related to the notion of topic

The notion of topic and the use of the word in recent linguistic literature has been fraught with confusion. Part of this confusion has been terminological. Part of it has related to scope differences in topicalisation. Part of it has related to the notion of topic as a...
grammatical role within the sentence, similar to that of the notion of ‘subject’. Another part of the confusion has been the role of sentence constituent ordering and the weight allotted to that important feature of topicalisation. The informational status and introduction process of referents is another aspect to the notion of topic, particularly new versus old information. Another part of the confusion has been the scope of topicalisation – either a more local sense of topic within the sentence, or a much wider sense of topicalisation spanning larger textual units or even the discourse itself.

A binary distinction has been observed between at least two types of status of referents in a text. The difference between referents in the text who are ‘on stage’, and those being brought ‘onto the stage’ is recognised under various terminological sets such as: Old/New, Known/New, Given/New (Halliday 1967), Activated/Previously activated (Chafe, 1987), and Presupposition/Focus (Lambrecht 1996, 2000). A yet more complex analysis of the initial binary distinction was made by Prince (1981) who categorised the speaker’s assumptions of the hearer’s familiarity into three types of information with various subtypes — New (Brand-new (anchored and non-anchored), Unused), Inferable (Non-containing Inferable, Containing Inferable), and Evoked (Textually Evoked, Situationally Evoked). Such finely tuned pragmatics, while helpful in classifying speaker assumptions, is linear and fails to account for the hierarchical structure of textual information across spans of text, which are themselves embedded within other texts and assumption spans.

Givón (1983) proposed a system for tracking discourse referents across the textual span of clauses in which the same referents tend to be evoked repeatedly. The quantifiable measurement for continuous topics (old information or presupposed reference) and for discontinuous topics (new information) lends an empirical basis to the confusion. This notion of topicality refers more to discourse theme and of profiling information across a span of text. Highly continuous referents are assumed to be more topical. Yet continuity tracking fails to net salient topics in languages such as those in Southeast Asia where indirectness, understatement, and the absence of overt mention may be used to indicate a topic. Strategic points in a text may therefore appear non-topical regarding referents, particularly where metaphor or analogy is used, yet be pragmatically effective for an audience’s awareness of the topic.

Figure–Ground organisation is the most probable cognitive basis for the binary distinction that linguists have sensed in examining the notion of Topic–Comment or presupposed-focused nature of information structuring. Figure–Ground relations account for the asymmetry felt to exist between two points of information in a sentence. Usually one is topic and the other comment. One is more focal or salient while the other more background and less prominent. One is more mobile or active in relation to the other as field of reference or target of action. The asymmetrical relation between the two (or more) constituents is probably psychological and cognitively hard-wired. Talmy characterises the Figure–Ground relationship in language as follows:

The Figure is a moving or conceptually movable entity whose path, site, or orientation is conceived as a variable, the particular value of which is the relevant issue. The Ground is a referenced entity, one that has a stationary setting relative to a reference frame, with respect to which the Figure’s path, site or orientation is characterised. (Talmy 2000:312)
Talmy's insights into cognitive semantics are based principally on the dynamics of motion. Thus for him, and most other linguists using Figure-Ground relations to describe the asymmetrical relations of the sentence, Figure (F) is topical, the most salient, and is typically correlated with the semantic agent, the mover, or causer, and thus with grammatical subject. Ground (G) is a reference entity possessing known properties that characterise the Figure. This schema, following Talmy (2000), can be applied as in (1) to the underlying event structure:

(1) a. Bill (F) is behind the garage (G).
   b. She (F) resembles him (G).
   c. Her going home (F) was after stopping at the store (G).

While this schema works well for the underlying cognitive semantics of highly transitive sentences with motion verbs and complex spatial relations of objects, it can be observed that for reduced transitivity the situation flips and the Figure shifts to the 'right' toward the new information, toward the grammatical object. Figure changes position to become what the sentence says, the comment, not the reference anchor of the continuing topic. Focus is upon the rightmost element, which gains in saliency and topicality.

The shift of the gestalt Figure-Ground with reduced transitivity begins to look more like the binary structure of Presupposed (P)/Focus (F₀) of Lambrecht (1996), illustrated in (2):

(2) a. Q: Who saw the mechanic?
    A: The mechanic (P) was seen by the principal (F₀).
   b. Q: When is Mac leaving?
    A: Mac (P) is leaving tomorrow (F₀).

The effect of providing the context to the response above gives the status of 'activated' information to the Presupposed elements. When elements become known, old, or given information in this context, they also become Ground, the known, the given, the referenced entity, in the sense of Talmy above.

1.3 Burmese postpositions involved in topicalisation

Burmese postposition particles mark the grammatical relations of the argument nominals of the verb and parse various levels of pragmatic information within the Burmese sentence and text. Some of these particles have been identified as marking topic and others as marking subject, with some marking both in the Burmese sentence (Okell and Allott 2001).¹

Particles that have been described as topic-marking in Formal Burmese (FB) and Colloquial Burmese (CB) are set out in include:

¹ Okell and Allott (2001) make an enormous contribution to the grammatical study of Burmese. The analysis here is indebted to, and builds on, their insights.
(3) Topic-marking particles in Burmese described in Okell and Allott (2001)

\(\infty\, k\alpha\) CB and FB; marks the noun as subject of the sentence, usually for emphasis or contrast, or to distinguish the agent from the patient (the latter often marked by \(\infty\, k\omega\) or \(\infty\, \tilde{q}\tilde{a}\)) often indicates the speaker when reporting speech. In FB some writers use \(\infty\, m\alpha\) to serve the same function (Okell and Allott 2001:1);

\(\infty\, k\alpha\) CB and FB; marks a phrase as topic of discourse, whether subject or not (Okell and Allott 2001:2);

\(\infty\, k\acute{a}\) CB and FB; marks a phrase with the sense of 'however' or 'but', highlighting the subject or topic of a sentence (Okell and Allott 2001:5);

\(\infty\, m\alpha\) FB (sometimes CB); marks a noun as the subject of a sentence, when the subject is a personal agent or an inanimate noun standing for a personal agent. In this usage it is equivalent to FB \(\infty\, k\alpha\), but in CB \(\infty\, k\alpha\) has more contrastive force (Okell and Allott 2001:165);

\(\infty\, m\acute{a}\) FB (sometimes CB); marks a phrase, and indicates topic of sentence, usually the subject (Okell and Allott 2000:171);

\(\infty\, m\acute{u}\) FB; marks a phrase as slightly contrastive with some other phrase (Okell and Allott, 2001:154);

\(\infty\, \tilde{t}\tilde{a}\) CB; nominalises a verb and marks it as the topic of the sentence (Okell and Allott 2001:74).

\(\infty\, \tilde{q}\tilde{f}\) FB; marks the noun as subject or topic of sentence in Formal Burmese only according to Okell and Allott (2001:245);

These various particles are well illustrated in Okell and Allott (2001), but what is far from clear is why they are used and how they function in specific contexts, and what kind of information the notion of topicalisation encompasses in Burmese. By examining whole texts the extensive linguistic context by which such notions relating to information such as 'given', 'new', 'recoverable', etc. can be shown to be an intrinsic part of the function of the particles. Discourse analysis also lays out the hierarchical structural units by which textual information is organised. Particles have been found to signal information function on multiple levels of clause, sentence, paragraph, section, and the discourse macrostructure as a whole. Many particles which were previously inexplicable have been found to function in tightly organised and beautiful ways through discourse analysis (Longacre 1996; Longacre and Woods 1976-77; Person 2000).

Assuming the notion of topic applies to both sentence and discourse levels, and assuming topic is both informational and grammatical, the present study examines the role of topic as it relates to three particles \(\infty\, \tilde{q}\tilde{f}\), \(\infty\, k\alpha\) and \(\infty\, k\omega\) as observed in one particular text. By restricting the analysis to one text, it is possible to examine more fully the inter-relationships and dependencies across higher level structures. In this article, the basis for generalisation in defining the function of particles is restricted in scope to specific texts or text types and structural contexts, but what is gained thereby is greater explanatory power in examining why a particular particle is used in a particular linguistic situation.
1.4 Types of information relating to topic prominence in Burmese

There are three distinctions important with regard to the notion of topic in Burmese. The first of these is information status, namely the classification of information as ‘new’ or ‘old’. This distinction is what some analysts have referred to as a cognitive operation analogous to the reader opening a new file for new information, or for old or already known information noting whether the file which already exists for this information is open and active, or is open but not active (not in immediate awareness). A more contemporary computer analogy might be one where old information is likened to an open file or window. If the file or window is visible from the desktop, it may require only a mild reference in the text (zero or pronominal). On the other hand, if it is buried or actually closed, somewhat more effort is required to retrieved and bring that file (information) into focal view.

Information status has to do with the amount of cognitive effort required to activate information. This effort is mapped iconically to grammatical constructions that serve to stimulate those cognitive operations. It is assumed that a more overt grammatical apparatus is required for old information that is specific but stored away and inactive.

Burmese follows the universal tendency of languages to place old information before new information. Typically in Burmese, new information occupies a position immediately preceding the verb phrase, that is rightmost in the string of phrases which precede the sentence-final verb phrase. In a written discourse, what is new and what is old information is normally recoverable from the immediately preceding text. In spoken discourse, what is old is more often recoverable from the social and speech context. While this generalisation is a function of the difference between written text and oral discourse, it is nonetheless a tendency of text to map greater referential detail due to the presumed loss of information from the social and physical situation of a speech event. The unstated knowledge implied by the writer to the reader can evoke a satisfaction, humour or deeper relevance which brings a peculiar joy in reading creative writing. However, the same implicatory function can leave second-language readers of Burmese perplexed. While much that is implied comes from a shared experience of the world and the expectations of cultural norms, the relation of sentence arguments and adjuncts in Burmese is marked by postpositions, most of which have multiple functions which are often generalised. Understanding the functions of these particles opens up the world of Burmese grammar, particularly for the second-language learner. While the number of particles treated here is small, it is hoped that this study might pave the way for future discourse studies, particularly concerning topic.

The following example from the National Day text (see section 2.1.2) illustrates the change in informational status across two sentences. In (4) National Day is new information; in (5), two sentences later in the text, it has become old information.

(4) National Day as new information (Sentence 1)

\[
\text{Tazaungmon.month.end \quad 10.CLF.day.TOP \quad national.day \quad be.POL.REAL}
\]

The tenth day of the waning moon of the month of Tazaungmon is National Day[NEW].
(5) National Day as old information (Sentence 3)

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(5) National Day as old information (Sentence 3)

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The second type of distinction necessary for topicalisation in Burmese is information focus. There are two types of information focus, the first is positional and the second is grammatical role.

Positional information relates to the linear, sentence-initial position or slot of the principal arguments of the verb. Sentence initial devices such as temporal or locative linkage are excluded in information focus, since these devices relate to textual cohesion and background rather than focus. The following example demonstrates these positions, labeled Position 1, Position 2, Position 3, in the sentence. The head of the Burmese sentence is not at the beginning but at the end, on the right rather than the left. Thus the numbered positions begin right, next to the verb, and proceed leftwards. Burmese, as head-final, is characteristically left-branching and is felt by Burmese speakers to ‘face’ toward the final verb. Greater Informational Focus is given to the elements placed in Position 1.

(6) Informational focus (Sentence 6)

Situational  Position 3  Position 2

1920.bj.e.twin  tinggalei7.7asojag.a  jangdun.te?kəθd.go
1920.CLF.year.in  English.govt.SUBJ  Yangon.university.OBJ

Position 1  Final Verb

p'win.ti?jan  sizin.dil
open.PURP  plan.REAL

‘In 1920 the English government made arrangements to open Rangoon University.’

Grammatical role is also a parameter of Informational Focus in the Burmese sentence. Information Focus tends to follow the animacy/empathy hierarchy (Silverstein 1976; Kuno 1976) and directly correlates with semantic and grammatical roles within the sentence. While the three parameters of animacy-empathy, semantic role and grammatical role are interrelated and have each been organised in an implicational hierarchy, and although the semantic role is more salient in Burmese, the choice is made here to focus on the grammatical in order to build on Relational Grammar’s insights regarding promotion and demotion of grammatical roles in the sentence.
(7) Hierarchy of animacy in relation to grammatical and semantic roles

<table>
<thead>
<tr>
<th>animacy-empathy hierarchy</th>
<th>human &gt; animal &gt; instrument &gt;...</th>
</tr>
</thead>
<tbody>
<tr>
<td>semantic role</td>
<td>agent &gt; patient &gt; benefactor &gt; purpose/reason &gt; result</td>
</tr>
<tr>
<td>grammatical role</td>
<td>subject &gt; object &gt; indirect object &gt; obliques &gt; genitives...</td>
</tr>
</tbody>
</table>

Due to the fact that unmarked word order in Burmese is SOV, natural or default prominence is accorded to sentence arguments with the grammatical role of subject. The problem of determining exactly what constitutes subjecthood in Burmese lies beyond the scope of this paper, but for present purposes, subject will be defined as the specified agent (or unmentioned agent in 'passive' constructions), the overt leftmost, non-oblique and non-object argument in a sentence. The casual observer may notice that subject is a default role in relation to other more overtly marked grammatical roles.

If an argument of the verb in Burmese is promoted or demoted from its principal grammatical role, e.g. a subject demoted to an oblique role as it does in the English passive construction (8), it is also thereby raised or lowered in focal prominence by grammatical promotion or demotion. Because agents are often unmentioned, default prominence tends to fall on the patient. Demoted agents in oblique roles such as Possessor may be mentioned for pragmatic purposes as we see in (9).

(8) Demotion in English.

Active: The man hit the cat.
Passive: The cat was hit [by the man] - OBLIQUE DEMOTION

(9) Promotion and demotion in Burmese (Sentence 4)


Position 1: Instrument  Final verb

'In 1885 Burma fell under a life of subjugation to British rule.'

In (9) the Patient, 'the country of Burma' is promoted to the grammatical pivot or in Relational Grammar terms, to number one. The Patient becomes subject-like and is moderately prominent because of the demotion of the agent to an oblique position. We shall see in subsequent sections this example also illustrates another type of focus in the unfolding detail of how topical focus is used in this sample Burmese text.

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2 The convention of using > to indicate 'is above' in the hierarchy indicates 'Human is above Animal, both of which are above Instrument' and so forth for each hierarchy.

3 The Noun Phrase Accessibility Hierarchy (Keenan & Comrie 1977).
The relative weight of focus or prominence in any one Burmese sentence is a matter of the operation of three parameters. In (9), the relative focal prominence of the arguments is as follows:

(a) informational focus: the new information ‘suffered subjugation’ in Position 1 is most salient and is in informational focus;
(b) positional focus: Position 1 is in focus;
(c) the grammatical role of Patient in Position 4 is focal, with no higher role present.

1.5 Summary of informational devices

In summary, the three dimensions of focus in Burmese operate with regard to Informational Status (new and old) and two types of Information Focus, namely positional role and grammatical role. These are illustrated in (10) with the asterisk representing the position with the highest salience in each dimension.

(10) Summary of Informational Devices

<table>
<thead>
<tr>
<th>Position 3</th>
<th>Position 2</th>
<th>Position 1</th>
<th>Final Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Status</td>
<td>Old information</td>
<td>New information *</td>
<td></td>
</tr>
<tr>
<td>Informational Focus</td>
<td>positional Low focus</td>
<td>High focus *</td>
<td></td>
</tr>
<tr>
<td>grammatical role</td>
<td>Subject * &gt;</td>
<td>Object &gt; …Oblique &gt;</td>
<td></td>
</tr>
</tbody>
</table>

In (10), Position 3 refers to the leftmost position of arguments of a sentence, even though an individual sentence may have up to 7 or 8 Positions. For instance, in (8) the number of surface positions to the left of the final verb is increased by a demoted actant, the embedded nominalised clause သင်္ဂြိုဟ်ရှင် သင်္ဂြိုဟ်ရှင် ကမ္ဘာ သို့မဟုတ် ကမ္ဘာ ‘suffering under the hands of the British’, modifying သင်္ဂြိုဟ်ရှင် ‘life’.

The value of distinguishing different types of focus helps us to understand how it is that several postpositions in Burmese are described as ‘topic-marking’ but signal different types of informational prominence. The schema in (10) also validates the natural, intuitive sense of prominence of different sentential arguments, in the complex structures of Expository texts.

1.6 Figure–Ground configurations and information devices

The Figure–Ground relations, discussed in 1.2, relate to a whole perceptual configuration, or a gestalt. These relations map onto the informational device schema in two interesting ways — as a highly transitive gestalt (11) or as a high absolutive gestalt (12). The notion of transitivity as information structure is consistent with discourse approaches to transitivity (Hopper and Thompson 1980).
(i) ‘Highly transitive’ sentence gestalt
In the first type of Figure-Ground configuration, old information is seen as topic. The Figure-as-topic in this type of sentence has a role similar to discourse theme as a continuing topic. The Ground is new, additive information which is always changing across the discourse span. Due to the steadiness of the topic, the Figure information is assigned textual prominence because it is repeated. It is the pragmatic presupposition whereas the Ground is the domain of the pragmatic assertion (Lambrecht, 2000). The Ground is the focus domain, which is more salient. In this configuration, Figure is not focal on a local level, but rather at a textual level. This is the typical form found with transitive, narrative sentences in Burmese and is represented in (11).

(11) Highly transitive sentence gestalt

<table>
<thead>
<tr>
<th>Figure</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>topic (of discourse)</td>
<td>focus</td>
</tr>
<tr>
<td>old information</td>
<td>new information</td>
</tr>
<tr>
<td>theme</td>
<td>rheme</td>
</tr>
</tbody>
</table>

(ii) Absolutive sentence gestalt
The second type of informational gestalt is where old information is regarded as the Ground: the basis, the known, the background, the drone instrument. Against this, the Figure is a focally figured block of new information which appears as an item of interest. In this conceptualisation, new information, the Figure, is more salient. This reverse configuration is represented in (12).

(12) Absolutive sentence gestalt

<table>
<thead>
<tr>
<th>Ground</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>known</td>
<td>salient</td>
</tr>
<tr>
<td>old information</td>
<td>new information</td>
</tr>
<tr>
<td>steady reference frame</td>
<td>variable</td>
</tr>
<tr>
<td>anchor</td>
<td>focus</td>
</tr>
</tbody>
</table>

Lambert (2000) describes these two similar configurations in terms of presuppositional characteristics. He labels the first gestalt in (11), ‘Argument Focus’. This configuration is considered marked because it introduces a new argument to a given predicate. The second gestalt, (12), he labels ‘Predicate Focus’. This is regarded as the norm in Subject–Predicate or Topic–Comment constructions where it is the predicate which adds a new assertion to a given argument. For English examples of these two configurations see (1)a and b for the former and (2)a and (2)b for the latter type. Note that English order tends to differ from Burmese order.

(13) summarises the weight of focus (indicated by one or two asterisks) relative to the position of the Ground and the Figure in an unmarked Burmese sentence.
(13) Position and relative focus in an unmarked Burmese sentence.

<table>
<thead>
<tr>
<th>Position 3</th>
<th>Position 2</th>
<th>Position 1</th>
<th>Predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground *</td>
<td></td>
<td>Figure **</td>
<td></td>
</tr>
</tbody>
</table>

Returning to the previous example (9) above, we find a more transitive sentence in which the source of the action is marked by an overtly expressed agent and with an overt mention of the patient, allowing the reader to view the whole conceptual scene of trans-action (DeLancey 1982). With regard to Figure–Ground relations, we review the information device weighting from (10), and find that highly transitive sentences shift the weight back to Figure. The four factors of information status and two information focus types together with Figure-Ground produces and evenly balanced Highly Transitive sentence configuration, as in (14).

(14) Position and relative focus in a Highly Transitive sentence gestalt.

<table>
<thead>
<tr>
<th>Position 3</th>
<th>Position 2</th>
<th>Position 1</th>
<th>Predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure **</td>
<td></td>
<td>Ground **</td>
<td></td>
</tr>
</tbody>
</table>

The notion of topic in discourse is related to the sense of local focus within the sentence, to information structure (both status and focus) and to the wider notion of focus or figure to the background gestalt of the discourse.

How these notions are played out in Burmese relates to the larger chunks of discourse, which may be equivalent to the naive concept of the orthographic paragraph. Here we shall refer to them as ‘discourse units’.

2 The National Day text — an example of Expository Discourse

In general we can identify texts as belonging to one of four types of discourse: Expository, Narrative, Procedural and Hortatory. The function of an Expository text is explanation and persuasion, in contrast to a Narrative text, which sets out to tell a story. Narrative texts are typically agent-orientated and are rich in chronological linkage. A third contrasting discourse type is the Procedural genre. Procedural texts explain how something is done; they, too, make use of chronological linkage but are activity-orientated rather than agent-orientated. Furthermore, the three discourse types typically prefer different types of clause, sentence, paragraph and discourse structures within the macro-structure of each genre. Hortatory text is persuasion not of the truth of something but for the reader to personal action. Hortatory text is typically imperative in mood, not agent-oriented, with logical linkage.

The National Day text comes from the Third Standard Burmese Primer (Myanmar Government Education 1994) and has been found to be an example of a well-crafted Expository text in literary Burmese. Expository text is typically characterised by more logical, non-chronological linkage, although narrative elements are often found embedded within it. It is topic-orientated rather than agent-orientated. The full text is presented below.
2.1 The National Day Text glossed sentence by sentence

(Myanmar Government Education Department (1994))

Sentence 1

Tazaungmon.month.end 10.CLF.day.TOP national.day be.POL.REAL
The tenth day of the waning moon of the month of Tazaungmon is National Day.

Sentence 2

that.day.in Myanmar.country.one.CLF.all.in national.day.ceremony.PL
On that day National Day ceremonies are celebrated all over Burma.

Sentence 3

national.day.commemoration.as talk.event.PL.and
To commemorate National Day, there are celebrations of lectures, exhibitions and competitions.

Sentence 4

Burma.country.TOP 1885.CLF.year.in English.PL.POSS
In 1885 Burma fell under the subjugation of British rule.

Sentence 5

this.time.from.start.SUBORD government.SUBJ Myanmar.PL.OBJ
From that time onwards the English government oppressed and restricted the Burmese in many ways.

Sentence 6

In 1920 the English government made arrangements to open Rangoon University.

Sentence 7

The University Act was also established.

Sentence 8

According to this act, not all who wished to study were permitted to do so. Therefore all the Burmese people were displeased.

Sentence 9
For that reason the university student leaders led a strike.

The Rangoon University Students’ strike spread out to various districts and wards, and as a result even district schoolchildren went on strike.

They established a people’s college and people’s schools.

Because of those schools, a sense of nationalism was further sparked and evolved.

The study of national literature also flourished.
From that time on the Burmese demanded independence and held continuous protest demonstrations against the English government.

That is why we say, "Independence began with National Day."

That day, which caused a spirit of patriotism to be aroused in the entire Burmese nation, has been designated as National Day.

We should not forget National Day, which sparked our patriotism.

We should strive to keep this spirit of patriotism forever alive by celebrating National Day each year.

2.2 Discourse units of the text

The discourse's macro-structure consists of a hierarchy of summaries, which at the topmost level is the global summary of the text. Each level of the hierarchy consists of summary units which also function as logical stages in the pragmatic strategy of
communication. The discourse structure of the National Day text follows the typical discourse units proposed as universal for Expository text described by Longacre (1996:36) with a problem-solution-evaluation structure proposed by Hoey (1983). The peak structure is set out in detail in (15) below.

(15) Peak Structure of National Day Text

<table>
<thead>
<tr>
<th>Peak Structure</th>
<th>stces</th>
<th>Surface features</th>
<th>National structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aperture: Definition</td>
<td>1–3</td>
<td>Introduction via Presentational Sentence. Plural, polite, slow</td>
<td>Aperture</td>
</tr>
<tr>
<td>Pre-Peak: Problem-Causes</td>
<td>4–9</td>
<td>unmarked plural, polite changed, negative mood</td>
<td>Exposition</td>
</tr>
<tr>
<td>Pre-Peak: Problem-Results</td>
<td>10–13</td>
<td>increasing complication of S structure, mixed with lighter S</td>
<td>Developing conflict</td>
</tr>
<tr>
<td>Peak (Thematic Peak): Solution</td>
<td>14–15</td>
<td>density of props/participants, verbs of saying, complexity of structure, speed up information, peak S, quote</td>
<td>Climax</td>
</tr>
<tr>
<td>Post Peak: Evaluation</td>
<td>16</td>
<td>slow down information, equational clause, repeat quote structure of 15</td>
<td>Final resolution</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>no plural, imperative mood</td>
<td></td>
</tr>
<tr>
<td>Finis: Admonition (Didactic Peak)</td>
<td>18</td>
<td>no plural, irrealis mood embedded in existence clause</td>
<td>Conclusion</td>
</tr>
</tbody>
</table>

Each discourse unit within the macrostructure is marked by boundary features and displays internal lexical cohesion. Tail–head linkage structurally binds some sentences together as, for example, between sentences 14 and 15 where the last noun ‘independence’ in 14 begins sentence 15. Structural parallelism is another form commonly used in Burmese to rhetorically underline a key point and bind a unit together, while also serving to slow down the text. In the Aperture of the discourse such a parallelism is found between sentence 2 and 3. Here the discourse topic of ‘national day’ is repeated with amplification by deverbal nouns in the same semantic domain – ‘ceremony’ and ‘commemoration’. Such a slowing down of the textual information is a common technique when introducing the discourse theme and may be typical of Burmese expository text. A full study of the types and functions within this discourse must be left for another paper as space will not allow details of these and other structures.

Each discourse unit also has a role or function in the text. Each role is in turn manifest by further structure. For instance, after the Definition of the discourse theme of ‘national day’ in sentences 0–3, we find a Problem unit having an internal structural role of Cause, sentence 4–9, and Result, sentences 10–13. This is followed by a Solution unit, sentences 14–15, and then an Evaluation, sentences 16–18.

The macro-structure of the whole text is illustrated in Figure 1. It features two discourse peaks: a thematic peak and a didactic peak, as seen in the far right columns. The thematic peak relates to the discourse theme and some type of resolution concerning that theme. The didactic peak relates to the teaching function of the text. This expository text has the Problem–Solution form followed by an Evaluation, a pattern typical of Expository
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Each discourse unit has its own structure and boundaries. For instance, the Cause unit is a unit with these boundaries is the fact that it is an embedded narrative discourse, with the typical features of narrative genre – chronological linkage, is actor-focused, demonstrates motion or active verbs, has an inciting moment and a climax of the action. This section lacks the consistent polite particle, which is found in every sentence in the rest of the text, indicating the narrative discourse units of Inciting Moment, Developing Conflict, and Climax are each not statements to someone requiring pragmatic politeness, but about something. Transitivity was also found to be increased in this unit, as discussed below in section 2.2.2.

2.2 The textual role of topic in the National Day text

2.2.1 Use of NP marker ပြို (thi) within discourse units

What follows is a survey of the four instances in the National Day text, set out in (16), where ပြို (thi) appears as a NP marker rather than as a sentence-final verb marker.

(16) ပြို (thi) as NP marker correlated with discourse units

<table>
<thead>
<tr>
<th>Sent</th>
<th>Role in Sentence</th>
<th>Role in Text</th>
<th>Corresponding discourse unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Old (known) Information</td>
<td>Introduction of Text Theme, serves as Ground</td>
<td>Theme: Definition (sentences 1–3)</td>
</tr>
<tr>
<td>4</td>
<td>Old (previously introduced -Sent 2) Information</td>
<td>Introduction of paragraph theme</td>
<td>Pre-Peak Arguments: Problem Causes (sentences 4–9)</td>
</tr>
<tr>
<td>10</td>
<td>Old (previously introduced - Sent 6,8,9) Information</td>
<td>Introduction of Section</td>
<td>Pre-Peak Arguments: Problem Results (sentences 10–13)</td>
</tr>
<tr>
<td>14</td>
<td>Old (previously introduced)</td>
<td>Re-establish the discourse theme as Ground</td>
<td>Peak: Solution (sentences 14–15)</td>
</tr>
</tbody>
</table>

NP marker ပြို (thi) marks the beginning sentence of each of four discourse units of the text, and as such is distributed to coincide with the major divisions of the peak structure. We can interpret the function of NP marker ပြို (thi) as an initial topic marker identifying the old information that establishes the Ground of that discourse unit. The content marked by topicaliser ပြို (thi) then serves as the anchor or the reference point upon which the rest of the new information is built within that particular discourse unit.

At the sentence level, the function of NP marker ပြို (thi) in the National Day text is to establish information assumed by the writer as known to the reader. This type of information is designated old, or established, information.

Burmese tends to follow the universal that old information precedes new information. Sentence 1 presents the topic of the whole discourse — National Day — as the second element — new information — after the first element, the month and date, which has been marked with ပြို (thi). The purpose is to mark out the information which the author assumes
to be resident in the general cultural knowledge of the readership. The same assumption does not follow for the second element. The second element is new information: this is what is salient in Sentence 1.

To reverse the linear sequence of the information in this equational sentence would violate the rules of information structure. Despite being an equational clause, it cannot be reordered in Burmese, as it could in English, to read ‘National Day is the 10th tenth day of the waning moon of Tazaungmon.’ To do so in Burmese would alter the Topic–Comment structure and change the assumptions about what information is known to the reader, i.e. it would assume that the reader knows what National Day is. This is not the task in hand here: the purpose of this text’s discourse is to explain what National Day is and why it should be honored and celebrated.

At the sentence level NP marker ဖြစ်သည် establishes the Ground of the sentence, while at the text level, the function of NP marker ဖြစ်သည် is to establish the Ground at the broader discourse level, upon which the general development and processing of focused information takes place through a discourse unit, in which a series of new informational chunks may be introduced and developed via a series of sentences or paragraphs. The known entity or quality of the Ground serves to establish the context within which newly introduced information should be interpreted, following the Absolutive Ground–Figure gestalt (see (12)). Thus a single NP marker may perform two functions simultaneously, at different textual levels. (17) lists the Ground themes flagged with NP marker ဖြစ်သည် which serve to introduce Figure topics, in the Absolutive gestalt.

(17) Content of Ground and Figure units in the discourse

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Discourse unit</th>
<th>Ground (theme)</th>
<th>Figure (focus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Theme</td>
<td>Month and date</td>
<td>(9) National Day</td>
</tr>
<tr>
<td>4</td>
<td>Problem: Causes</td>
<td>Burma</td>
<td>(9) English subjugation</td>
</tr>
<tr>
<td>10</td>
<td>Problem: Results</td>
<td>University student strike</td>
<td>(9) District school children</td>
</tr>
<tr>
<td>14</td>
<td>Solution</td>
<td>Burmese People</td>
<td>(9) Independence</td>
</tr>
</tbody>
</table>

The process of establishing the Ground is like opening a general topic file which will be relevant to that section of the text. Within each discourse unit, after the first NP marked with ဖြစ်သည် new focal Figures are introduced. The Figures which are most immediate within each discourse unit are listed as a column in (17).

In each discourse unit, the Ground–Figure framework of textual information progresses along the Expository macrostructural sequence. One of the textual functions of the NP marker ဖြစ်သည် is to establish a new textual Ground: an informational unit within that macrostructure.

2.2.2 Use of Marker ကြိုး ကြောင်း within Discourse Units

Another postposition commonly described as a ‘topic marker’ is ကြိုး ကြောင်း. (18) lists the sentences in the National Day text where ကြိုး ကြောင်း is used explicitly to mark either the agent or the Figure in the Transitive gestalt (11). The first four occurrences of ကြိုး ကြောင်း are in the discourse unit Problem ‘Causes’. This unit, which comprises sentences 4–9, is in fact an embedded Narrative discourse. Each of the NPs subject marked with ကြိုး ကြောင်း functions as a semantic agent. These sentences are high in transitivity, particularly sentences 5 and 6.
which contain overtly marked agent and patient arguments. The marking of these agent–patient pairs with რ ყ (agent) and ჯ ყ (patient) raises transitivity and heightens drama. The prominence of the embedded Narrative is created by informational focus based on grammatical role, as described in Table 1, Hierarchy of Animacy in Relation to Grammatical and Semantic Roles. The grammatical role of agent as subject is expected in narrative genre, but it is not necessary to specify the agent after first mention, provided the agent continues in that semantic role.

The semantic agent in sentences 5 and 6 of the embedded narrative is ‘the English government’. Following the introduction of this participant in an oblique possessor semantic role in sentence 4, it is striking that it is made explicit as agent in both sentences 5 and 6, rather than being indicated by pronominal or reduced reference. Furthermore, it is not technically necessary for the agent to be marked explicitly with რ ყ, given that the semantic patient is marked by ჯ ყ. Repetition of the same NP in full and marking it რ ყ in the following sentence is exceptional. The norm would be for explicit mention to fade into some oblique role or into zero anaphora (as happens in sentence 7). The repetition has the force of rhetorically marking ‘the English government’ as the source of force, the aggressor. As a textual device, this grammatical use of რ ყ iconically mirrors an interpretation of the real-life, non-textual context. The drama of this tension is heightened by the increased transitivity caused by overtly marking the animate patient or victim (the Burmese people) with რ ყ. The effect of the heightened transitivity is to shift the Ground–Figure information gestalt from the Absolutive configuration (Ground–Figure) of sentence 4 to a Highly Transitive configuration (Figure–Ground).

(18) Distribution of რ ყ in relation to peak segments

<table>
<thead>
<tr>
<th>stce</th>
<th>Position in Peak structure</th>
<th>Agent (რ ყ)</th>
<th>Patient (ჯ ყ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Pre-Peak: Problem–Causes</td>
<td>British govt</td>
<td>Burmese people</td>
</tr>
<tr>
<td>6</td>
<td>Pre-Peak: Problem – Causes</td>
<td>British government</td>
<td>University</td>
</tr>
<tr>
<td>8</td>
<td>Pre-Peak: Problem – Causes</td>
<td>Burmese people</td>
<td>(zero)</td>
</tr>
<tr>
<td>9</td>
<td>Pre-Peak: Problem – Causes</td>
<td>University student leaders</td>
<td>(strike) [unmarked]</td>
</tr>
<tr>
<td>10</td>
<td>Pre-Peak: Problem – Results</td>
<td>District school children</td>
<td>(strike) [unmarked]</td>
</tr>
<tr>
<td>15</td>
<td>Peak: Solution</td>
<td>National Day</td>
<td>Beginning of independence</td>
</tr>
</tbody>
</table>

The strengthened transitivity iconically imitates the polarisation of political forces (agent–patient as oppressor–oppressed). The discourse participant in the რ ყ role is in a position of power, while the ჯ ყ role identifies the semantic undergoers and links together those parties opposed to the British: the Burmese people (S8), university student leaders (S9) and district school children (S10).

In sentence 8, the power relations of the entity marked with რ ყ change. Here the context is a power struggle in which the winner — ‘the Burmese people’ — becomes the overtly marked sentential agent. However ხ ყ marks not only semantic agent, but also semantic experiencer, the one affected by his own agency, as with the verb ‘displeased’. A range of semantic roles may be marked with ხ ყ: agent, experiencer, instrument, source.

Finally to map the categories of informational status on the analysis of ხ ყ we notice that in sentence 8 ‘the Burmese people’ is marked by all three informational devices: information status and both types of informational focus. In terms of relative weight (see
(10)), the agent in sentence 8 has maximum weight by being agent and being promoted rightward to the focus position next to the predicate.

In sentences 8, 9 and 10, there is a build-up of agents marked with $\varnothing$ kₐ denoting parties on the ‘Burmese’ side of the struggle introduced in sentence 6. Sentence 8 has ‘the Burmese people’, sentence 9 has ‘the university student leaders’ and sentence 10 ‘the district school children’. The agents in these three sentences, each marked with $\varnothing$ kₐ, intensify from the general to the specific, conveying a sense that power on the Burmese side is strengthening. Marking with $\varnothing$ kₐ reinforces agency and power, and also signals solidarity between the agents thus marked. Interestingly, there is no overt patient paired with these ‘Burmese’ agents. The effect of this is to reduce tension and reduce transitivity. The absence of an overt patient reduces the degree to which an agent’s power is sensed as oppression.

The last sentence in which $\varnothing$ kₐ is found is sentence 15, which marks the end of the ascent to the discourse Peak. Sentence 16 begins a new discourse unit: the Post-Peak phase of Evaluation. The phrase ‘National Day’ in sentence 5, which is marked with $\varnothing$ kₐ is inanimate, unlike the earlier phrases marked with $\varnothing$ kₐ. However, it is all the more weighty for returning to the theme of the whole discourse - National Day.

Where $\varnothing$ kₐ marks an inanimate object, it lacks the typical features of transitivity-kinesis, volitionality, punctuality, agency, affectedness, or individuation (Hopper and Thompson 1980) and thus is interpreted as non-transitive. With an inanimate noun, $\varnothing$ kₐ is interpreted not as source of power or volitionality, but as temporal or spatial source with a reading in English as ‘from’. In sentence 15, these typical $\varnothing$ kₐ functions do not make sense except to reinforce the semantics of the temporal nominal ‘the beginning of independence’. More significantly for discourse linguistics, $\varnothing$ kₐ in sentence 15 functions at the discourse Peak to mark the resumption of the discourse topic ‘National Day’. It is therefore functioning here mark the summit of the Peak.

### 2.2.3 Discourse function of kui kò in relation to topic

The patient-marker $\varnothing$ k₉ kò is involved in the marking of topic in two ways, both of which are indirect in this text. The first function of $\varnothing$ k₉ kò is to show positional information focus as the normal occupant of Position 1 (see (10)). In the last three sentences of the text, $\varnothing$ k₉ kò marks the return of the textual theme ‘the day’, or specifically, ‘National Day’. The repeated pattern of $\varnothing$ k₉ kò with the same lexical content or referent reinforces the whole discourse topic in the Post-Peak unit of Evaluation.

The final section of the discourse is actually an embedded Hortatory discourse and demonstrates a pragmatic shift from explaining to preaching. An admonition or moral when tagged onto the end of an expository text often serves as its conclusion or Post Peak. Burmese typically signals pragmatic functions toward the end of a linguistic unit—the end of the sentence, paragraph or discourse (Hopple, 2003). A secondary discourse Didactic Peak functioning independently from the Thematic Peak (see Figure 1) arises at the end of the discourse. Many languages use varying strategies for similar didactic functions, so plotting a separate peak has been found to be useful to understand particle usage. The Post-Peak Admonition has prominence by its final position, and contrasts with the preceding text by employing a different grammatical mood—negative imperative and irrealis. The
information structure here is Ground-Figure, the Absolutive Gestalt, and is manifest by a series of overtly kò-marked nominals.

A binary view of information structure has been presented here. When the complement of kò, that is kò, is used to indicate an argument as Figure, then kò, plays a background role by strengthening distinctness of the opposite side of the gestalt. Depending on which gestalt one uses, Transitive or Absolutive Sentence Gestalt (see (12)), kò has a systemic role in topicality.

3 Conclusion and future research

The topicalising and thematic functions of postpositional particles ṭhi, kà and kò in the literary style Burmese text ‘National Day’ have been examined in the context of discourse analysis. These particles were found to function beyond the sentence as discourse stage markers of argument structure: ṭhi marks the background theme of discourse units, while kà and kò mark, respectively, dominant versus subordinate social status of participants, and signal role reversals within an embedded narrative discourse. They also signal a shift in the Figure-Ground gestalt from Absolutive to Highly Transitive. At the discourse Peak kà was found to highlight discourse topic and in the Post-peak of an embedded Hortatory discourse kò-marked background discourse topic.

A sentence perspective of Burmese grammar makes particle selection of sentential topic and theme appear random. Discourse considerations demonstrate a motivated, cognitively perceptive, and hopefully language-learner accessible role of what has been labeled topic in Burmese.

Future research of discourse-based topicalisation in Burmese utilising the present discoveries and hypotheses is to be encouraged, particularly by native speakers of Burmese. Analysis based on a single text (as is the case in this study) is valid in text linguistics, but ample studies are required to firmly ground particle functions across textual genre. Studies may be undertaken of a particular particle in a specific genre, or a genre as a whole. The great gulf between Formal and Colloquial Burmese is most obviously seen in the use of particles. Further research is needed to compare the functions of particles, in particular the role of ha and kà in Colloquial Burmese as opposed to ha, ṭhi and kà in Formal Burmese.

The current study is a first contribution to text-linguistic studies of Burmese particles. It is the beginning of what should be a productive and enlightening linguistic adventure.

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1 Introduction

"The grammar of Burmese is almost entirely a matter of the correct use of particles."
Stewart (1955)

It is generally known that in learning Burmese, or in the endeavours of speakers of Burmese to acquire a better understanding of the way the Burmese language functions, one of the greatest difficulties seems to be the heavy use of lexical items such as ကလေး, လချ, ပဝ, နိုင်, usually referred to as particles. While their grammatical functions have been extensively described in recent reference grammars, such as Okell and Allott’s (2001) Dictionary of grammatical forms and the Manuel de Birman Vol. 2: Grammaire Birmane (Bernot et al. 2001), discourse studies on spoken Burmese are still very rare. Although the situation-dependent nature of these particles has been taken into account in the current literature, there is still a need for a more systematic description of Burmese discourse structures through the use of these particles. This study therefore is born of my intention to identify discourse functions that are typically associated with a set of particles in Burmese, as a step toward a systematic account of Burmese discourse structures.

Using a corpus-based approach, within the framework of discourse analysis, this study examines two particles ကလေး, ပဝ in natural spoken and written Burmese data. My objective is to demonstrate that these particles serve important discourse functions that have not been included in reference grammars; that their semantic values are context-dependent; and, in addition to their being typically associated with the spoken style of Burmese, that their use may also be genre-specific. The corpora include eight texts from different genres of spoken Burmese, namely

1. dialogues in fiction;
2. pre-scripted speech in radio plays;
3. personal narratives, and

By texts in spoken style, I mean narratives or dialogues, whether they are delivered in a spoken or written medium. This study focuses on spoken style only and excludes expository prose style written texts.
2 Particles in Burmese

Burmese particles are bound or semi-bound morphemes which are attached postpositionally to lexical units such as nouns and verbs, or larger syntactical units such as clauses or utterances. Some particles are obligatory for indicating grammatical relations between words, clauses or utterances, and therefore often receive grammatical labels such as subject marker, verb attribute marker, sentence-final particle, and so on. Hopple (2003) observes that 'particles have been classified according to their distribution within grammatical constructions, and there is a wide spectrum of particle function between highly semantic to wholly grammatical'. While it is true that Burmese particles 'carry almost all the grammatical information contained in a sentence' (Okell & Allott 2001), a large number of particles seem non-obligatory as they do not have any particular syntactical function, and they do not affect the propositional or conceptual meaning of utterances. Yet, these particles are neither semantically dispensable nor redundant in the discourse, as they convey important information regarding the speaker’s attitude towards the message itself, the speech act itself, the speaker’s interlocutor or the potential audience. A close examination of these particles in language-in-use reveals that Burmese particles have both syntactical and discourse functions: they often serve an affective function rather than a referential, denotative or cognitive function alone in a discourse, and their interpretation is usually interactionally accomplished. Particles are typically polysemic, and many of the particles do not have one to one equivalent in English, as their semantic values are often highly context-dependent.

For example, the context-dependent nature of particles can be illustrated with sentences that have been made up using the particle ကြိုက်, which is one of the most studied particles in Burmese linguistics. As can be seen in the examples below ကြိုက် is equivalent to English ‘from’ in (1); it is a subject marker, noun marker or marker of agent as it identifies the subject noun or agent of the sentence in (2); and it is a topic marker in (3), where it identifies the topic of the whole discourse, rather than the subject noun in one sentence alone.

(1) ကြိုက် နားလည် ရွေးချယ်
ရူပ်ကြိုက် နားလည်နာင် ပြန်လည်း
Mr Okell England.from return.come.perf
‘Mr Okell is (now) back from England.’

(2) ကြိုက် နားလည် ရွေးချယ်
ရူပ်ကြိုက် နားလည်နာင် ပြန်လည်း
Mr Okell.SBJ English.race.POL
‘Mr Okell is English.’

It is debatable whether some of the particles are syntactically obligatory or not, but this issue is beyond the scope of this study.

The transcription of Burmese follows the conventions used elsewhere in this volume.
Mr Okell is English. Although he is English, he can speak Burmese well. (He) has also lived in Burma for a long time.

These examples suggest that in order to make an accurate interpretation of the semantic value of particles, we need to go beyond the sentence level, and study their functions at a discourse level. This study attempts to demonstrate that, besides the syntactic functions described in reference grammars, some particles may serve important discourse functions, and therefore may be categorised as discourse markers.

3 Discourse markers

Discourse is ‘language which has been produced as the result of an act of communication’, and it refers to ‘larger units of language such as paragraphs, conversations, and interviews’ (Richards et al. 1993). Discourse marker is a general term that refers to lexical items used in discourse such as English well, but, oh, y’know, like, German doch, halt, ja, eben; French donc, alors, eh bien, bon; Turkish yani, i te, ey, ya (Ozbek 1995) or Norwegian vel, visst, nok, da (Jucker 1993). The concept is a fuzzy one, as there is no consensus on the choice of term: discourse markers are also known as ‘discourse particles’ (Schourup 1985), ‘discourse connectives’ (Blakemore 1988), ‘pragmatic markers’ (Fraser 1996), ‘interactional particles’ (Maynard 1993), or ‘particles of rapport’ (Uyeno 1971) in the existing literature on discourse studies. However, this diversity of terminology simply reflects the wide range of linguistic approaches adopted by different researchers to describe lexical items that serve various kinds of discourse functions, and therefore the choice of label is only a definitional issue that does not affect the content of the present study. The term ‘discourse marker’ (henceforth DM) is chosen here, suggesting a broad category which subsumes many discourse functions, including ‘discourse connectors, intimacy signals, topic-switchers, hesitation markers, fillers, and attitude markers, hedging devices’, and so on (Jucker & Ziv 1998).

Particles in Burmese may be considered discourse markers because they share common features of discourse markers that have often been discussed in the current literature. Among them, I will cite a few that may be applicable to my description of Burmese particles as discourse. Discourse markers are syntactically detachable (Schiffrin 2001), yet their distribution is not random, and they are not freely interchangeable (Wierzbicka 1986). Discourse markers cannot be studied in the absence of context, as they pertain primarily to language-in-use, rather than to language structure (Wierzbicka 1986), and their more
specific interpretation is negotiated by the context (Fraser 1990). Discourse markers convey procedural meaning rather than conceptual or propositional meaning: they do not affect determination of truth conditionality, nor do they contribute to propositional content (Fraser 1990; Jucker 1993; Ochs 1973). Discourse markers have an affective or emotive (rather than a referential or denotative) function (Jucker 1993; Maynard 1993).

4 The data corpus

The corpus for this study, profiled in (4), consists of some 20,000 syllables4 of natural spoken Burmese, which is drawn from eight texts in four different genres. All the spoken data were collected randomly over the last few years, were recorded by various individuals. The data in written form are drawn from various publications. Further descriptions of the data are listed in Appendix A.

This is a small corpus, so it is not possible to report findings in conclusive detail. Prosodic features are excluded from the transcription and analysis. In general, the analysis suggests that certain discourse features are associated with the use of particles ကြည့် and ပြော in different types of discourse. This finding may improve our understanding of discourse-marking particles of spoken Burmese in general. The objective of this study is simply to identify possible discourse features of the particles, as suggested by actual data, that may extend beyond their description in existing grammars. The analysis of the data is both quantitative as well as qualitative.

(4) The text corpus

text | genre | syllables
---|---|---
1 အိုး - အိုးကြည့်မှု | written, fictional dialogue | 2,432
2 နားနား(ပက်) - နားနားမှု ပြော | written, fictional dialogue | 827
3 မိန်း - မိန်း | written, fictional dialogue | 1,761
4 မိန်းကိုမှန်ခြင်း | scripted, spoken radio-play dialogue | 1,855
5 နားနားမှု ပြော | scripted, spoken radio-play dialogue | 2,711
6 နားနားမှု ပြော | spoken narrative | 4,435
7 နားနားမှု ပြော | spoken narrative | 4,480

4 It is difficult to apply the notion of ‘word’ to Burmese, which uses a syllabic script in which ‘word’ divisions are largely optional and a matter of personal preference. I am therefore quantifying the texts in the Burmese corpus by ‘syllable-count’ rather than ‘word-count’. While corpus-analysis in many other languages has been commonly done through the use of computerised concordancing tools, since it was impossible to use these tools on Burmese text (because of the syllable-division problem), syllables were counted by hand and the particles to be examined were isolated manually.
Discourse particles in Burmese

a film to a visitor

Two people – one asking for opinions about a personal interview
radio station

Total

4.1 ကြည့်လိုချင်

The particle ကြည့်လိုချင် has been variously described as a suffix meaning 'also, as well, too, in addition' (MLC 1993, Okell and Allott 2001). It is also used to link parallel noun phrases with the meaning 'not only … but also' or 'both… and' as in (5)–(7):

(5) စာဆောင်၊ ကြည့်လိုချင် စာဆောင်၊ ကြည့်လိုချင်
speech.talk. also, good

'(He's) not only good at speaking but also at writing.' (MLC 1993)

(6) ကြည့်လိုချင် ကြည့်လိုချင် ကြည့်လိုချင် ကြည့်လိုချင်
kaphi.lé tea?tè laphe?jè.lé tea?tè
coffee. also, like.REAL tea. also, like.REAL
'I like both tea and coffee.'

(7) ယုံကြည့်လိုချင် ယုံကြည့်လိုချင် ယုံကြည့်လိုချင် ယုံကြည့်လိုချင်
jángoun.mlé mája.bú, mándalé.mlé mája.bú
Yangon.in.also NEG.get.NEG, Mandalay.in.also NEG.get.NEG
'We couldn’t get any either in Yangon or in Mandalay.'

(Okell and Allott, 2001)

Okell and Allott’s (2001) Dictionary includes a separate entry for ကြည့်လိုချင် preceded by the noun-marking particle က၀, glossing the whole ကြည့်လိုချင် as 'as for'. While ကြည့်လိုချင် kälé emphasises the topic of the sentence, the ကြည့်လိုချင် component can sometimes retain the meaning ‘also’ as in (8), where ကြည့်လိုချင် is the verbal adjective ‘be cold.’

(8) ပြြို၍လိုချင် မိုးတွင်မြေပြင်၊ ကြည့်လိုချင် ကြည့်လိုချင် ကြည့်လိုချင်
pa?wun?in mjù.dwe.shán.nè.de, cùhán.gà.lé cùhán.de
surroundings mist.PL.hang.CONT.REAL, cold.kälé cold.REAL
'It was misty, and cold as well.'

With these meanings, ကြည့်လိုချင် kälé occurs very frequently in the corpus, shown in (9). A close examination of the data indicates that ကြည့်လိုချင် kälé also occurs with a discourse-marking function, when marking pronouns or kinship terms used as pronouns.
(9) Occurrence of ကြည် in the corpus

<table>
<thead>
<tr>
<th>text</th>
<th>No. of occurrences</th>
<th>as DM</th>
<th>syllables</th>
<th>No. of DM per 1000 syllables</th>
</tr>
</thead>
<tbody>
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<td>2432</td>
<td>2.06</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>0</td>
<td>827</td>
<td>0.00</td>
</tr>
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<td>3</td>
<td>9</td>
<td>3</td>
<td>1761</td>
<td>1.70</td>
</tr>
<tr>
<td>4</td>
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<tr>
<td>7</td>
<td>120</td>
<td>0</td>
<td>4480</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>29</td>
<td>1</td>
<td>2369</td>
<td>0.42</td>
</tr>
</tbody>
</table>

When ကြည် occurs in this collocation, it is usually in response to the utterance in the previous turn. The speaker seems to be expressing some kind of self-justification, self-defence or reproach, as illustrated and contextualised in examples (10)–(12). More examples from the data may be found in Appendix B.

(10) ကြည် ကြည် ကြည် ကြည် ကြည် ကြည် ကြည်

mother.ကြည် say.just. if anger.only.EMPH

‘Oh Mother, you’re always angry when you speak!’

Text 1: son to mother in defense to her reproach that he has given too much priority to his own wife and her family.

(11) ကြည် ကြည် ကြည် ကြည် ကြည် ကြည် ကြည်

oh! daddy.ကြည် this.age.big.arrive.only-when marriage.do.IRR.QUOT

‘Oh, Daddy, so you’re only getting married at this old age?’

Text 4: daughter to father who has just announced that he is going to get married in order to be better looked after.

(12) ကြည် ကြည် ကြည် ကြည် ကြည် ကြည် ကြည်

Thweh.ကြည်.TOP May Moe.OBJ insert.just.EMPH

‘[For goodness’ sake,] Thweh, just send May Moe (in your place).’

(From Text 5: Khin Hnaung is telling Thweh, reproachfully, and in an attempt to protect her, that Thweh does not need to accompany her boss, a male foreigner, to a dinner, but instead could very well send another employee, May Moe.)

As can be seen from the frequency of discourse-marking ကြည် in (9) and the contexts described in (10)–(12), ကြည် occurs with the discourse meaning of ‘self-justification’, ‘self-defence’ or ‘reproach’, with a higher frequency in dialogues between close friends or family members than in narratives and in personal interviews, perhaps because conflicts are not typically a part of narratives and interviews, where the motivation for speech is straightforwardly to impart or exchange information. The interlocutor may
interrupt when there is a need for information to be checked, or, at times, simply to establish good listenership.

The conclusion to be drawn from these data is that the use of ကလေး with this particular discourse meaning may be genre-specific. Among the five texts of fiction (namely Texts 1–5), of which three are in written mode and two in spoken mode, variation in the frequency suggests that the use of ကလေး with this discourse function is context-dependent. Where there is no apparent reason for conflict between the two interlocutors, (e.g. in Text 2, which consists mainly of narrative with very little dialogue), this discourse function is not required. Furthermore, Text 3 has the fewest tokens of ကလေး with this discourse function because the dialogues in this text consist mainly of the giving and seeking of information or suggestions, except for the part where the husband and the wife enter into a disagreement as in (13). Here, the wife reproaches her husband for suggesting that they should start consuming the Nescoffee (a Burmese brand of instant coffee) that they have just received as a gift; she is inclined to think that they should offer such a precious item as a gift to the doctor who is taking care of her mother, instead of drinking it for their own pleasure. Her reproach is provoked by her husband’s lack of understanding and inability to foresee advantages they could gain from such an opportunity.

Texts 1, 4 and 5, all with relatively frequent use of discourse-marking ကလေး, consist of reproaches by individuals, and the subsequent defensive utterances of those being reproached. For example, in Text 1 a daughter and son respond to their mother’s reproach for each of them giving favours to their in-laws, and a husband reproaches his wife for practising double standards with their son and daughter. In Text 4, a father and his siblings either justify their own actions or blame each other for not taking care of their aging father. In Text 5, a girl reproaches her friend for not being modern enough in her clothing and behaviour.

I have demonstrated the discourse function ‘self-justification’, ‘self-defence’ or ‘reproach’ associated with the use of ကလေး. There are other discourse meanings of alone (without က) in different collocations. For example, while ကလေး is not typically used in narratives for the discourse function in question, the high frequency of tokens in Text 7 suggests that this may be a prominent feature of spoken narrative. Notably, within the total of 120 tokens, ကလေး occurs consistently in the patterns in (14):

\[(14) \text{ or } \text{VERB} \, \text{ကလေး} \, \text{VERB} \]
\[(14) \text{ or } \text{VERB}_1 \, \text{ကလေး} \, \text{VERB}_1 \text{VERB}_2 \]

In these structures, ကလေး serves as a discourse connector ‘and when verb happened…’, picking up the material from the last element in the narrative to introduce the next element, as in (15) and (16):
The selection of this structure over other common structures to express 'as/when VERB' such as VERB သိခေါ်, or VERB သတ်သုံး may be determined by specific motives within the discourse to solicit more involvement from the listener, or by a wish to dramatise the story. On the other hand, it may be simply idiosyncratic. These questions may perhaps be answered by investigating larger corpora.

4.2 ကြည့်သော

The ‘emphatic’ particle ကြည့်သော is one of the most commonly used particles in spoken Burmese, and it appears with high frequency in all genres represented in the corpus, as shown in (9). ကြည့်သော is described in reference grammars as a 'particle suffixed to a verb as emphasis' (MLC 1994) and as a 'sentence-final phrase particle' with the meanings 'of course, by all means, naturally, obviously; presumably, no doubt, I suppose; you know, let's say, I mean' (Okell & Allott 2001:122). Given the high frequency of ကြည့်သော tokens in the data, it is not possible to list all its occurrences. Here in (17) some quantitative information about the data is provided; only selective examples drawn from the data will be included in the analysis.

(17) Occurrence of ကြည့်သော in the corpus

<table>
<thead>
<tr>
<th>text</th>
<th>No. of occurrences</th>
<th>syllables</th>
<th>No. per 1000 syllables</th>
</tr>
</thead>
<tbody>
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<td>2,369</td>
<td>23.64</td>
</tr>
</tbody>
</table>

The data reveal some important discourse features associated with the use of particle ကြည့်သော in spoken discourse, discussed below.

When ကြည့်သော is used in utterance-final position, typically followed in narratives in this corpus by one of the two discourse-marking 'concessive' particles နာသာ or လတ်သာ, the speaker seems either to be checking the listener's comprehension, or soliciting the
interlocutor’s involvement in the narrative process. As examples (18)–(21) demonstrate, နား p9 may be translated into English as ‘you know’, ‘so, naturally’, ‘let’s say’, etc., depending on the context.

(18) တည်ခြင်း ယုံနေငြမ် မရှိကြည် ။
that.sell.REAL NOM ma.houʔ.pʰuʔ,bə.lə
‘He was, like, I’m not selling them, you know?’
(From Text 6: Lwin Moe, the male protagonist, wanted to buy sugar-cane sticks, but was told that they were being distributed free of charge.)

(19) သို့မဟုတ် လူမှုများ ကျလောင်ပြီးနှစ် ဗိုလ်မှု
thereupon LwinMoe.SUBJ.also pleased.encouraged,pə.OK?
‘So then Lwin Moe was, like, really delighted, you know.’
(From Text 6: Lwin Moe has been told that he can eat as many oranges as he likes, when caught picking them from a plantation.)

(20) အကြာ သတိရှိပါသည်
accident take place.REAL NOM.EMPH.OK?
‘So [let’s say] there was an accident, right?’
(From Text 7: The narrator is making an assumption about a protagonist who was injured, but doesn’t remember/understand exactly what happened.)

(21) အကြာ သတိရှိပါသည်
revenge.wreak.REAL ATTR နား မိန်း ဗိုလ်မှု
intent.type.with.EMPH နား မိန်း ဗိုလ်မှု နား ပြား.
‘It was done as a way of getting even, you know.’
(From Text 7: The male protagonist has tried to seduce the sister of his former fiancée’s husband, after the fiancée dissolved her engagement with him.)

The context-dependent use of နား p9 and its collocational distribution in the discourse, suggests that there may be other discourse meanings associated with different collocations with နား p9. For example, it might be possible to distinguish between the meanings and discourse functions of နား p9.nə and နား p9.lə. Using corpus analysis, we can try to determine if each collocation is likely to occur in certain types of contexts, or at certain points of discourse. This is an unexplored area of investigation for future research in Burmese discourse studies.

The particle နား p9 also appears with a high frequency in Text 8, the personal interview. It occurs either in utterance-final position, or after short phrases such as တည်ခြင်း, tagélo ‘really’, or co-occurs with words used when the speaker is hesitating, such as နား ။ ‘that’, နား ။ ‘like that’, or နား ။ ‘that thing’. Naturally, people often express opinions during personal interviews, and နား p9 seems to have the effect of toning down claims or assumptions so as not to appear too assertive, as in (22). In (23), the interviewer
is trying not to appear too imposing in soliciting the interviewee’s opinions, displaying the modesty that is considered polite in Burmese culture.

As discussed above, ခွဲ ပေါက် typically occurs in phrases where the speaker is hesitating. (24) is list of phrases in the corpus containing ခွဲ ပေါက် as a hesitation marker, filler, or hedging device.

(24) common phrases collocating with ခွဲ ပေါက်.

<table>
<thead>
<tr>
<th>Burmese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြွက်နှင့်၀ိုင်း သို့မဟုတ် မိန့်ဖြူ</td>
<td>that</td>
</tr>
<tr>
<td>ပြောသည်ကြား</td>
<td>this</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့</td>
<td>like that</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ</td>
<td>in this way</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ မိန့်ဖြူ</td>
<td>in that kind of way</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ မိန့်ဖြူ သေဘာတူ</td>
<td>in these sorts of ways</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ မိန့်ဖြူ သေဘာတူ</td>
<td>in those kinds of ways</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ မိန့်ဖြူ သေဘာတူ</td>
<td>really, in actual fact</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ သေဘာတူ</td>
<td>so, after all</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ သေဘာတူ မိန့်ဖြူ</td>
<td>so, after all, well, erm</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ သေဘာတူ</td>
<td>so, well, erm</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ သေဘာတူ</td>
<td>a biography indeed</td>
</tr>
<tr>
<td>ကျွန်ုပ်လို့မိန့်ဖြူ သေဘာတူ</td>
<td>Ma Ma Khine indeed</td>
</tr>
</tbody>
</table>

In addition, the varying frequency of ခွဲ ပေါက် tokens in the different genres of texts set out in (17) suggests that the use of ခွဲ ပေါက် is genre-specific. It occurs with a higher frequency in Texts 6–8, which comprise unplanned, spontaneous speech such as personal interviews and narratives. While dialogues in fiction or in scripted speech usually imitate naturally- occurring dialogues, they may still lack some of the features of spontaneous speech such as
hedging devices. This may explain why နိုင်ပြီး ပန်း is absent or less frequent in such texts. It should be noted, moreover, that နိုင်ပြီး ပန်း may also be topic-sensitive: in Texts 1–5 the participants are reproaching each other, defending themselves, or exchanging information and consequently, there is not much need or room for modesty and consideration for others, another reason for the absence or lower frequency of နိုင်ပြီး ပန်း.

The conclusion is that in spoken discourse နိုင်ပြီး ပန်း is likely to have one of the following discourse functions: checking comprehension, soliciting involvement from the interlocutor, or toning down the presentation of an opinion or interpretation. In addition the use of နိုင်ပြီး ပန်း may be genre-specific and topic-sensitive.

5 Conclusion

Adopting a corpus-based approach within the framework of discourse analysis, I have examined the discourse features of two particles, နိုင်ပြီး လခ် and နိုင်ပြီး ပန်း, in spoken and written colloquial Burmese. The collocation နိုင်ပြီး ကလေး after nouns or pronouns may express self-justification, self-defence or reproach by the speaker. The use of နိုင်ပြီး ကလေး seems to be specifically characteristic of dialogues in the corpus which involve conflict and disagreement between close friends or family members. The particle နိုင်ပြီး ပန်း, on the other hand, may be used as a hedging device when a speaker is trying to tone down claims and interpretations to maintain modesty and humbleness, qualities highly valued in Burmese culture. The use of these particles in the present corpus is found to be context-dependent, topic-sensitive, and genre-specific.

With this study, I have sought to demonstrate that certain particles can express discourse meanings in Burmese, and therefore also be classified as discourse markers. Their discourse functions, however, are often overlooked when they are described in reference grammars. There is certainly a need for further study of discourse in Burmese.

Appendix A: Brief description of the content of the texts in the corpus

Text 1.

Author: Thukhaथု်ခါ
Title: His Side is my Side သီခြင်နှင့် ယောင်းချင်း
Text type: written, fictional dialogue
Protagonists: nagging mother, daughter, son, a rather submissive father.
Three sets of dialogues and a few short narratives.
Dialogue between mother and daughter: mother is telling her how she should look after her own family instead of her in-laws, and preaching that wife has a right to all the husband’s earnings.
Dialogue between Mother and Son: mother is yelling at him because he’s giving too much priorities to his in-laws.
Brief dialogue between Father and Mother: he points out the double-standard she's practising, and gets yelled at.
Text 2.
Author: Nu Nu Yi (Innwa) နဝန်းရွှေ့ (အိုခေါင်)
Title: You’re Just Like the People ကြားချင်သော် ပြောင်းလဲမှု ခြင်္သေ့ ကြည့်မှု တိုးပော် ကြောင်း နှင့် နှင့်
Text type: written, fictional dialogue
Protagonists: a vendor of medicines and buyer who is also a medical doctor, both female, at the market
Very few brief dialogues: buyer asking for information about the medicine, and a large part of narrative mostly reflecting the thoughts of the vendor as she observes and admires the buyer but finally gets disillusioned.

Text 3. ဝါဝါ – ဝါဝါ [fiction in written medium]
Author: Ma Sanda မာ စန်း
Title: The Cycle of Rebirth ဝါဝါ သိန်း
Text type: written, fictional dialogue
Protagonists: four different families.
Five brief but very similar scenes, each with dialogue between husband and wife, or parents and children, and a monologue, mainly about a jar of Nescafe as a gift – where they get it from and who they will give it to. Protagonists mostly agree with each other’s plans, except for the last one in which husband unsuccessfully expresses his desire to drink Nescafe. Contains a few brief narratives.

Text 4.
Title: Daddy’s getting married မိဘ ရောမရှိသော် မတေဆာင်နေ ပြီးသွားမှု ပြောင်းလဲ ခြင်း
Text type: scripted, spoken radio-play dialogue
Protagonists: again father, young daughter living with him, older daughter and son, both married and previously living apart, but now have moved in with him.
Three dialogues and a few brief narratives.
Dialogue between father and young daughter: casual conversation about daily routines, father’s plan to have the son move in so that he won’t be left alone
Dialogue between older daughter and father: she informs him of the need to move in with him because of the high rent.
Dialogue between Father and all three children: Father announces his plan to remarry in order to be better looked after; children start objecting, justifying their unintentional lack of attention and blaming each other as the cause of the father’s ridiculous plan. Then everything changes at the end for a happy ending.

Text 5.
Title: Home-grown Ko Ko ပြောင်းလဲသော် ကြောင်း နှင့် နှင့်
Text type: scripted, spoken radio-play dialogue
Discourse particles in Burmese

Protagonists: two young women friends Thweh (T) and Khin Hnaung (KHn), and KHn’s mother.

Synopsis: T is modern and KHn is old-fashioned. T gets KHn a job at the company where she is working. T is frustrated with KHn’s style of clothing and behaviour and criticizes her. KHn worries about T’s audacious behaviour, and expresses her concerns. They get into a dispute, stop talking to each other, but their differences are reconciled in the end.

Different sets of dialogue between T and KHn; a brief dialogue between T and KHn’s mother.

Dialogues between T and KHn mainly revolving on the subject of T’s passion for everything foreign-made and KHn’s naïve fashion sense and social skills.

Dialogue between T and KHn’s mother at the beginning: general greeting, and casual conversation.

Text 6.
Text type: spoken narrative
Synopsis: A recounting the plot of a film to B. A rich man who hates money and luxury meets a girl. He finds out she’s rich and wants to have a fancy wedding, so he runs away. He is assaulted and put on a bus. He finds himself waking up in a bus in the countryside. He meets a girl and her family who look after him. He falls in love with this new life. Then the fiancée shows up, begging him to return to the city. The new girl is broken-hearted. But a happy ending ensues as usual.

Text 7.
Text type: spoken narrative
Synopsis: A recounting the plot of a film to B in the presence of two other people. Girl and Boy meet. Both have a passion for music, but since girl’s parents do not approve her passion for music nor for Boy, they decide to elope. Boy gets into a motorcycle accident and the whole plan is ruined. Girl leaves for the city, meets Boy 2, and they get married. Boy 2 has a sister, who has a passion for music. Sister meets Boy. Girl finds out, tries to stop Boy from taking revenge on her by using Boy 2’s sister, but in vain. Boy and Sister get married, but Boy gets drunk often, singing a song about a broken heart. Sister finds out, gets into a fight, goes to hospital. Then everybody meets, things are resolved, happy ending.

Text 8.
Text type: personal interview on confidential material.
Synopsis: A interviews B soliciting B’s opinions regarding a radio station. Both A and B are male native speakers of Burmese.
Appendix B

Sentences from the corpus containing discourse-marking ဗားယွ with the possible function of ‘self-justification’, ‘self-defence’, or ‘reproach’.

Note: In utterances marked [?], the discourse function of ဗားယွ is probable but uncertain.

**Text 1.**

1. ဗားယွ ဒီမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   So, mother, why do you have to keep pestering me with difficult questions?

2. ဗားယွ ဘာ စိမ်းမှုကို ဖော်ပြခါမယ်!
   Oh mother, you’re so difficult!

3. ဗားယွ ဘာ ပုံမှုမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   Oh mother, don’t you come [as well]! If you come there’ll be too many.

4. ဗားယွ ဒီမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   Oh mother, but I did pay attention to [what] you [said].

5. ဗားယွ ဘာ ပုံမှုမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   If you say anything, you just get all angry.

6. ဗားယွ ဒီမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   Yes of course. Even just now when Khin Khin Nyunt was here it was a case of keeping quiet about the wife’s earnings, and the wife taking care of the husband’s earnings.

**Text 3.**

1. ဗားယွ ဘာ ပုံမှုမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   [Now] you’re being difficult, Ko Ko.

2. ဗားယွ ဒီမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   Hmm. As soon as these coffee powder jars get here they’re dirty all over.

3. ဗားယွ ဘာ ပုံမှုမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   Oh Ko Ko Lwin, it’s just that Nescoffee has a well-known name.

**Text 4.**

1. ဗားယွ ဒီမှာ ဖြစ်တာ ဆိုတာ ရှိတာကို ဒီဘာ ပါဘူး?
   Oh you [my daughter]! They all live [and eat] separately.
2. Hmm, so[ Daddy,] now you’ve reached this advanced age you’re planning to get married.

3. And you [little sister] really don’t seem to care.

4. And[ you,] since you’ve been working, you just haven’t had the time to look after [him].

5. Dad, you know all about our [my wife and my] financial situation.

Text 5.

1. Can’t you just wear something fashionable?

2. Hey, Khin Hnaung, you’ve got that big salary coming in now.

3. And your hair: all the time it’s just in a big ponytail tied with an elastic band.

4. Oh Khin Hnaung, your handbag’s all wrong!

5. Thweh, why don’t you just tell May Moe to go instead of you?

6. Thweh, you just don’t get it, do you? Just pull yourself together!

7. Oh Khin Hnaung, it was just like [they do it] in those movies.

8. Yes, Khin Hnaung, [as you know, after all] Ko Ko was born in this country and grew up here, so he’s turned out to be a real, genuine Burmese guy.

9. Don’t even try to ask how thick Ko Ko is! He needs constant pushing!
On Writers’ Day, held on 28 November 1965 and sponsored by the Upper Burma Writers’ Association, Maung Tha Noe submitted a monumental paper, Modern Burmese Writing on behalf of the Prose Commission in which he suggested that people begin writing in Modern — or colloquial — Burmese, language spoken by the people, to narrow the gap between the written and spoken languages (Upper Burma Writers’ Association [hereafter UBWA] 1966:86).

Now, nearly forty years later, the use of colloquial Burmese has become noticeably more popular, although not necessarily as a direct result of Maung Tha Noe’s paper. The popularity of colloquial Burmese is not limited to prose, the major target of the Commission, but has spread into poetry as well. Nevertheless, the art of writing in Modern Burmese (MB), overshadowed by the older written language, has still not achieved the high status or regard it well deserves for its clarity and effectiveness. In this paper I will point out some remedies for the mishandling of Modern Burmese by mixing it with Formal Burmese (FB).

For those readers with insufficient background knowledge of the movement in 1965, this paper provides a brief account of the literary scene of the time, some statements from the paper by the Commission and its advocates, as well as the voices of readers. I will then give examples of some common writing styles found in current Burmese periodicals and news media, with recommended solutions.

1 The Paper Modern Burmese writing

At the time of the submission of the paper Modern Burmese writing, colloquial Burmese had already appeared in literary writing. The Prose Commission of the Upper Burma Writers’ Association expressed their displeasure with the pace of the transition away from writing in literary style language as one reason for calling for change in Modern Burmese writing, which they thought should be based on the actual language the people of that time used. The Commission gave a brief account of the history of Burmese writing from the
Bagan period ပုဂံခေတ် (1110–1300 CE) to 1965, claiming that Burmese writing had diverged into two systems, colloquial and literary, since 1300 when people began to adorn their writing with literary usages even though the practice of the Bagan period was to write in the colloquial Burmese of that time. This also led to the divergence of the colloquial and literary styles in the Nyaunyan period နော့နေ (1599–1754) with the evidence from the စာခေါင် ရေးရာ: poems and the stories of Yathawuddha ဗိုလ်း. Scholars credit the favorable reception of U Ponnya's ပူတား literary works in the Konbaun period သိန်းပင် (1754–1885) to his cleverness in using the language of the people of his time. P. Moe Nin မိုးနင် (1883–1940) and Theikpan Maung Wa သီးကြီးဝါ (1899–1942) made efforts to avoid the ornamentation of language in their works. The Commission pointed out that some writers were still reluctant to write in the language spoken by the people, although at the same time some had shown certain progress by using literary but simple Burmese.

The Prose Commission suggested that literary Burmese should be replaced by Modern Burmese, pointing out the problems of using the literary language. Because of the wide differences between colloquial and literary writing, the Commission made the following points (UBWA 1966):

1. Students who finished the second grade, as reported by the Educational Research Bureau, were unable to read Burmese after not having reading for a certain period of time (UBWA 1966:62);
2. Young students face the difficulties of learning a foreign or ancient language besides studying the writing system of their own language (UBWA 1966:70, 71);
3. People in the countryside had trouble understanding the educational literature distributed to them (UBWA 1966:74–77).

The Commission hoped that people would derive maximum enjoyment from literature which was written in Modern Burmese. Later, the Commission began to advocate Modern Burmese, drawing a distinction between that and conversational spoken Burmese as actually uttered, including hesitations, groping for words, and words in incorrect order. The proposed Modern Burmese would entail systematic spelling and grammar, and would be divisible into three levels:

1. Formal Burmese, the style of language prepared before presenting to a public audience;
2. Standard Burmese, the style spoken by and comprehensible to most people;

The Prose Commission advocated the use of Formal and Standard Burmese.

2 Advocates of the Paper

Although the Prose Commission made their statements clear, the matter became complicated when two influential individuals, Dr Than Tun သန့်မြောက် and U Kyaw Yin ကြီးစိုး, added their views. Dr Than Tun, then Professor of the Department of History at Mandalay University, presented a paper *Early Burmese* in support of the proposal made by the Commission. Based on his theory that the people of the Bagan
Writing Modern Burmese: the status of colloquial Burmese

period wrote as they spoke, he asserted that the spelling and syntax of that time were explicit and simple (UBWA 1966:47). Dr Than Tun concluded his paper advising, ‘Burmese, without worry, should be written effectively just as it is pronounced.’ U Kyaw Yin, Rector of Mandalay University at the time, expressed his delight as the keynote speaker of the conference when hearing that ‘people are going to write [the language] as it is pronounced without paying attention to spelling.’ (UBWA 1966:170). Dr Than Tun and U Kyaw Yin clearly misinterpreted the Prose Commission’s paper as a suggestion to write the language as it is spoken.

3 Against Modern Burmese

This misinterpretation of the paper continued to spread and sparked a furious debate which did not die down until 1970. Those who disagreed with the paper offered the following reasons (UBWA 1966):

- The entire nation has already accepted the present writing practices (UBWA 1966:196, 255);
- The quality of Burmese prose will decline with the increase in literary work by unskilled writers (UBWA 1966:191, 192);
- The splendour of Burmese — the richness of vocabulary, explicitness and compactness of aesthetic literature — will disappear if a literary work were written in spoken Burmese (UBWA 1966:189, 191, 197);
- Orthographic problems could arise due to the nature of the Burmese language (UBWA 1966:224).

These were the linguistic reasons related to the issue – some participants in the argument suggested that an effort should be made to help village people become literate (UBWA 1966:184), and some argued that a conceptual and political revolution were more important to a literary movement (UBWA 1966:200). I will not address these issues here because they are not linguistic matters.

The most reasonable of the four arguments above is the assertion that the current literary style was comprehensible to and accepted by the whole nation. Thein Aung, who gave his views after reading the Commission’s paper thoroughly, said that even Burmese people who had never learned basic writing did not have a problem understanding written Burmese when someone read it to them (UBWA 1966:258). What he said is absolutely right. However, although the current orthography is perfectly intelligible, we should still encourage the development of an easier, improved writing system to promote better communication between readers and writers.

Anxieties about the decline in quality of Burmese literature from the loss of verbal ornamentation are as unfounded as are worries about the rise of orthographic problems associated with the introduction of Modern Burmese. The colloquial Burmese every speaker uses does not lack flavour in comparison to the formal Burmese which people do not read or write in daily lives; in fact, it is even richer. The people of Hladaw village in Upper Burma are one example, described by Aung Naing (1982). Although most of the villagers could not read or write, they adorned their daily language with fantastic similes and metaphors. If we take writing as a tool for communication, then any undue concern
over decorative language is misplaced. Everyday language is clearer because readers and writers are already familiar with it.

Likewise some writers expressed their concerns about the orthographic problems that might arise if they wrote in Modern Burmese. Yan Aung (1968), a well-known veteran writer, mocked the movement saying that his mother, who was not properly trained in writing, made spelling mistakes in the spoken language she wrote in letters. Tet Toe, who is knowledgeable in both Burmese and English literature, also criticized Modern Burmese writing, branding it ‘Spoken language writing.’ (Tha Noe 1972:204). Thein Pe Myint, a respectable journalist, wrote against the use of Modern Burmese in an article in the newspaper Bothtaun (Tha Noe 1972:204).

Such mockery and criticism resulted from some zealous advocates overstating the subject, and from some irresponsible critics not reading the paper thoroughly. As noted above, Dr Than Tun and U Kyaw Yin misinterpreted the Prose Commission’s paper as a suggestion to write as spoken. Maung Swan Yi, a well-known poet and literary critic, started his essay of support as if the paper had suggested that one should ‘write like we talk’ (UBWA 1966:202), a phrase he uses repeatedly throughout his essay. Finally, the original proposal to ‘use Modern Burmese’ was replaced with the phrase ‘spell according to pronunciation’ and ‘write it the way it’s spoken.’ Thein Aung (1966:37) misinterpreted the paper as being centred on the suggestion to ‘write it the way it’s spoken.’ No wonder the paper caused anxiety over the future of Burmese literature among readers who never cared to read the paper exhaustively. Yan Aung, Tet Toe and Thein Pe Myint are just a few examples of this kind of reader. Because of these critics, Maung Tha Noe, instrumental in submitting the paper, became unnecessarily preoccupied with defending his proposal, saying that he never meant for people to write exactly as they spoke. Besides not reading the paper thoroughly, the critics’ level of linguistic expertise was a source of unnecessary problems. Establishing a great name in Burmese literature does not automatically bring with it a full awareness of the mechanics of the language. No critic of the movement proved himself to be a qualified linguist.

4 The current status of Modern Burmese

Despite such negative reactions, writing in Modern Burmese started gaining a stronger foothold in various media after 1965, although it is hard to say whether this was the outcome of the paper or part of the language’s natural course of development.

Weekly journals, distributed throughout the country, have been one area of increased writing in Modern Burmese (see Appendix 1): more pages are written in Modern Burmese today than in periodicals published prior to 1965 (see Appendix 2). Since I am focusing on prose in Modern Burmese, I will not address Modern Burmese in poetry here, although there too its use is apparently gaining in popularity. Modern Burmese is more fashionable than ever in Burma’s information media — newspapers and broadcasting stations. Although newspaper reports are still in literary Burmese, most freelance writers use Modern Burmese in their articles. News reports on Myanmar Television are all in Modern Burmese, while the Myanmar Broadcasting Service still uses literary Burmese for news reports. The broadcasting services outside Burma, such as the BBC, RFA and VOA, all use Modern Burmese.

Nevertheless, the language of many sources of information in Burmese is not yet pure Modern Burmese, but continues to be mixed with literary style. Here are some examples
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from written reports in some weekly journals. The underlined phrases and grammatical particles in (1)–(5) would never be heard in normal spoken Burmese.

(1) [NP]-[VP]-[return]-PURP.for
[Golden Age of Myanmar football] [think]-NOM.in [support]-be.CAUS.PURP.for

(2) [NP]-[VP] [attend/listen]-CAUS.POL.REAL
He asked many of his students to attend literary rallies like this one.

(3) [NP]-[VP]-[appear]-REAL.ATRR
The ship’s captain explained about the buildings to be seen on the left and right banks of the river while steering the ship. Shwe Amyutei Monthly, Yangon: Zabutalu Press, May 2001, p.116.
Now let me admit honestly how I was crazily possessed. 'Shway Amyutei Monthly မြန်မာစာ, Yangon: Zabutalu Press, February, 2001, p.111.

Is it not the case that fulfilling her responsibilities, being loyal and consistently carrying out her duties are the qualities that every wife should have?' Myanatmaung Monthly မြန်မာစာ, Yangon: Nyeingyanyei Sapei, July 2001, p.83.

Literary Burmese still dominates not only written information but also audio and audiovisual reports. (6) consists of a single sentence: it is an extract from a broadcast by the Myanmar Television Service on 18 December 2000. The numbered, underlined words in Literary Burmese are glossed in the table below the passage.
The Ministry of Information’s reluctance to use Modern Burmese in written and audiovisual reports can be attributed to the tendency of governmental organisations in general to use formal language. Foreign broadcasting stations, however, although active users of Modern Burmese, also have the same problem of unnecessarily mixing literary Burmese in their Modern Burmese in their reports. (7)-(11) are some examples from the BBC Burmese Service evening broadcast of 2 January 2002, with suggested Modern Burmese (MB) equivalents.

(7) BBC  MB

The oath was taken with security strictly imposed.

Changes: ‘in’ in the phrase ‘[NP] in [place]’ translated with နိုင်ငံ တွင် နိုင်ငံ တွင် နိုင်င်း တွင် instead of နိုင်င်း တွင်; noun made plural with တြိန် တြိန် တြိန် တြိန် instead of တြိန် တြိန်.

(8) BBC  MB

adverbs formed by reduplication rather than -သိအို -swa suffix; subordinate clause formed with [VERB]-ပါ; monosyllabic verbs preferred over disyllabic.

(9) BBC  MB

‘Oxford University Argentinian studies programme.’

Changes: location marked with နိုင်င်း တွင် နိုင်င်း တွင် နိုင်င်း တွင် နိုင်င်း တွင် instead of နိုင်င်း တွင်.

(10) BBC  MB

‘It turned it into something they shouldn’t do — something which might cause unrest on the streets.’

Changes: Causative suffix သိအို sē replaced by မျှ၀ဲ မျှ၀ဲ မျှ၀ဲ မျှ၀ဲ မျှ၀ဲ မျှ၀ဲ မျှ၀ဲ မျှ၀ဲ;
You are listening to the programmes of the BBC Burmese section in London.

Changes: Avoidance of the wordy practice of nominalising verbs with တွေ့ and re-verbalising them with ပြုသောက်

Examples (12)–(16) are from the morning programme broadcast by the Burmese service of Voice of America (VOA) on the same day, 2 January 2002:

(12) VOA သည် ကယ်ရောက်ရပ်စိတ်ကို မကြည့်ပါ။

Changes: disyllabic verb စတင် ‘start’ replaced with monosyllabic စျာ; redundant copula ပြုသောက် ပြုသောက် removed.

(13) VOA မှန်ကန်နေသည် သို့သောက် သို့မဟုတ် သို့သောက်တွေ

Changes: [VERB]-လို ‘want’ replaced with [VERB]-လို လို

(14) Broadcast နောက်ပို့ပို့ လိုက်ပွဲများမှာ မကြည့်ပါ။

Changes: As in (12), the redundant copula ပြုသောက် ပြုသောက် removed

(15) Broadcast အယ်ဒီ ၁၀၁၄ ကျော်နောက် လိုက်ပွဲ

Changes: As in (12), the redundant copula ပြုသောက် ပြုသောက် removed – here it is in a redundant relative clause.

(16) Broadcast သို့သောက် သို့သောက် သို့သောက် သို့သောက် သို့သောက်

Changes: As (13).

The evening programme in Burmese from Radio Free Asia (RFA) on 2 January 2002 contained the following:

(17) RFA သည် ကယ်ရောက်ရပ်စိတ်ကို မကြည့်ပါ။

Changes: wordy language simplified; monosyllabic verbs preferred over disyllabic
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5 Formal language

Writers and broadcasters are still stumbling out from under the shadow of literary style in their attempts to use Modern Burmese. One of the many reasons for such hesitation is their tendency to use formal language. Maung Tha Noe, the individual instrumental in submitting and defending the Commission's paper, himself exhibits literary-language habits in his recent works. The underlined words he uses in (22) are never found in Modern Burmese unless the writer is trying to be formal.

The sentence in (22) above could be rewritten in pure Modern Burmese as (23), making the substitutions and stylistic changes described in (24) and (25).
Although Modern Burmese is acceptable for its clarity, succinctness and effectiveness in comparison to formal Burmese, many writers and broadcasters still use the latter: a muddled mixture of colloquial and literary Burmese.

Although writing in Modern Burmese is now found in contexts where only formal literary Burmese might once have been appropriate, the new language still retains some of the undesirable features of literary Burmese, such as ambiguity and verbosity.

One example is the use of the grammatical particle က (kā) in Formal Burmese. While က is used both as a subject marker and to mean 'from' in the spoken language, in the literary language က is used only as the latter, and is not used instead of က as a subject marker. Yet, during the 1970s, out of an over-eagerness to show respect to authorities, followers of the Burmese Socialist Programme Party started to replace subject-marking suffix က with the literary equivalent of the homonymous postposition က from 'in, for instance, phrases like (26), introducing the chairman in at official meetings, as if the established subject-marking suffix က to the chairman of the meeting would be insulting, and only a overtly literary suffix such as က would be appropriate. Here, က does not sound right even though it may conform to the perceived preferences of the authorities for its supposed literary weightiness.

The misuse of the literary suffix ་ for colloquial object-marking suffix ་ is another example of the problem of unnecessary formality in Burmese. In the belief that ་ sounds more polite, it is common to see ་ used wrongly in place of ་, as in (27). In fact, the postposition ་ is not used in spoken Burmese at all. Thus (27) may be said with the intended meaning of 'The Chairman is requested to make an address.' In fact, this can also be parsed as meaning 'It is requested that an address be given to the Chairman.' There would be no such potential ambiguity if speakers referred to the speech they might themselves produce.
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An alternative rendition in Modern Burmese would be (28).

Other problems arise in the use of lexical items. Wordiness results from the unnecessary use of doubled verb agglomerations like မရော် ယုံ နှုတ် 'arrive.exist' or မရော် ယုံ 'go.arrive', where the single verbs မရော် 'arrive' and သော် 'go' are entirely sufficient for the purpose. The use of the pronoun မရော် သိမ် for 'she' instead of the third-person pronoun ဒုံ which does not specify gender is unnatural and awkward. The use of မရော် သိမ် presumably arose from the misconception that it was more polite and appropriate to have a specifically feminine pronoun in Burmese to translate the English pronoun 'she' in the literary translations and English lessons during the colonial period.

Further examples of literary habits creeping into colloquial Burmese involve the use of the copula ပြင်. Formal sentences like (29) can be written or said more simply in Modern Burmese as (30).

This use of the copula ပြင်, which does not exist in modern spoken Burmese, occurs also in the structure in (31), where it detracts from the conciseness of the spoken language equivalent in (32).
(32) မောင်မောင်မှ အခြားပြုလုပ်မည်
သူမ သူအောင်မှ
I  go.POL.IRR
'I will go.'

See Appendix 2 for more examples of formal or literary Burmese grammatical and lexical items found in broadcasts, along with their equivalents in Modern Burmese.

6 Conclusion

Aware of the Burmese writers who are talented both in the use of spoken and literary Burmese, I have no intention of advocating the sole use of Modern Burmese. The late Ludu U Hla မီးခ်က်, who led the Upper Burma Writers Association, and his wife Daw Ama ကျောက် are good examples. Readers recognise their works as great: the earlier works in literary Burmese, and the later ones in colloquial style. Similarly, writers like Aung Thinn အောင်သင် and Nay Win Myint နိုဝင်းမြင်, to mention just a few, are brilliant in both styles.

However, I do recommend that formal Burmese, which is currently gaining ground in communication media, should be replaced with Modern Burmese in order to enhance the effectiveness of written Burmese for the benefit of Burmese writers and readers. Broadcasters need never be bothered again by the choice of formal literary words they believe to be appealing to their readers and listeners; they can become their own teachers and use the language they currently use in speech without worrying that it might be inappropriate. Some individuals may enjoy mixing literary Burmese into their conversational language, saying the phrases in (33) instead of their equivalents in (34).

(33) မည်ကြည့်ပြီး ကျောင်းသားပြုလုပ်ပါ
နောက်တစ်ချက် နှစ်ယောက်ပုံ
that.however  that.like.say.finish.REAL.time
'However…’ 'having spoken like this…'

(34) မည်ကြည့်ပြီး ကျောင်းသားပြုလုပ်ပါ
နောက်တစ်ချက် နှစ်ယောက်ပုံ
that.however  that.like.say.finish.when
'However…’ 'having spoken like this…'

Listeners and readers may accept the forms in (33) as idiolects. Writers and broadcasters must pay particular attention, however, to arranging their daily language in an acceptable order. Modern Burmese is in many ways simpler and more user-friendly than formal or literary Burmese, yet the use of formal Burmese with the literary features it retains, is annoying for readers and listeners because of its wordiness and vagueness. The use of a standardised form of Modern Burmese, as outlined in this study, will help the users come closer to their target audience for its conciseness and clarity.
Appendix 1

(35) Approximate proportion of Modern Burmese in some magazines in 1962–1965

<table>
<thead>
<tr>
<th>magazine name</th>
<th>date</th>
<th>total pages</th>
<th>pages of Modern Burmese</th>
</tr>
</thead>
<tbody>
<tr>
<td>ဗွားနာမ်တို့ သည် တိုးတက်မှု များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>Feb 1962</td>
<td>270</td>
<td>18 – correspondence</td>
</tr>
<tr>
<td>ဗွားများ ဗွားများ</td>
<td>Feb 1964</td>
<td>256</td>
<td>7 – story-telling</td>
</tr>
<tr>
<td>မိသိုလ်များ မိသိုလ်များ</td>
<td>Nov 1965</td>
<td>250</td>
<td>3 – a letter</td>
</tr>
<tr>
<td>မိသိုလ်များ မိသိုလ်များ</td>
<td>Nov 1965</td>
<td>250</td>
<td>3 – a letter</td>
</tr>
</tbody>
</table>

(36) Approximate proportion of Modern Burmese in some journals in 2001

<table>
<thead>
<tr>
<th>journal name</th>
<th>date</th>
<th>total pages</th>
<th>pages in MB</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ဗွားနာမ်တို့ သည် တိုးတက်မှု များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>17 May 2001</td>
<td>14</td>
<td>8</td>
<td>57%</td>
</tr>
<tr>
<td>ဗွားနာမ်တို့ သည် တိုးတက်မှု များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>27 Jun 2001</td>
<td>16</td>
<td>6</td>
<td>37%</td>
</tr>
<tr>
<td>ဗွားနာမ်တို့ သည် တိုးတက်မှု များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>29 Jun 2001</td>
<td>14</td>
<td>8</td>
<td>57%</td>
</tr>
</tbody>
</table>

(37) Approximate proportion of Modern Burmese in some magazines in 2000 and 2001

<table>
<thead>
<tr>
<th>magazine name</th>
<th>date</th>
<th>total pages</th>
<th>pages in MB</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ဗွားနာမ်တို့ သည် တိုးတက်မှု များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>Feb 2000</td>
<td>200</td>
<td>75</td>
<td>37%</td>
</tr>
<tr>
<td>ဗွားနာမ်တို့ သည် တိုးတက်မှု များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>Nov 2001</td>
<td>168</td>
<td>79</td>
<td>47%</td>
</tr>
<tr>
<td>မိသိုလ်များ မိသိုလ်များ</td>
<td>Nov 2001</td>
<td>160</td>
<td>21</td>
<td>13%</td>
</tr>
<tr>
<td>မိသိုလ်များ မိသိုလ်များ</td>
<td>Feb 2001</td>
<td>188</td>
<td>128</td>
<td>68%</td>
</tr>
<tr>
<td>မိသိုလ်များ မိသိုလ်များ</td>
<td>Jul 2001</td>
<td>184</td>
<td>105</td>
<td>57%</td>
</tr>
</tbody>
</table>

Appendix 2

Examples of Formal Burmese (FB) replaced with Modern Burmese (MB)

(38) subject marker [NOUN]♀ မှ → [NOUN]♀ ကा

<table>
<thead>
<tr>
<th>FB</th>
<th>MB</th>
</tr>
</thead>
<tbody>
<tr>
<td>...♀ အဝိုင်ပြည်သူများ များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>...♀ ကြားပြည်သူများ များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
</tr>
<tr>
<td>...မှ သာနောင်းအတွင်း များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>...ကြား သာနောင်းအတွင်း များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
</tr>
<tr>
<td>... from/Subj, sound.broadcast.POL-REAL</td>
<td>... from/Subj, sound.broadcast.POL-REAL</td>
</tr>
<tr>
<td>'Broadcasting from...'</td>
<td>'[This is]...broadcasting.'</td>
</tr>
<tr>
<td>→ ♂ မှ is never used as a subject marker in spoken Burmese; it should be replaced with subject marker ♂ ကա</td>
<td></td>
</tr>
</tbody>
</table>

(39) verb nominaliser [VERB]♀ များ → [VERB]♀ သတ်

<table>
<thead>
<tr>
<th>FB</th>
<th>MB</th>
</tr>
</thead>
<tbody>
<tr>
<td>သာနောင်းများ ကြိုး များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>သာနောင်းများ ကြိုး များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
</tr>
<tr>
<td>သာနောင်းများ ကြိုး များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>သာနောင်းများ ကြိုး များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
</tr>
<tr>
<td>သာနောင်းများ ကြိုး များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>သာနောင်းများ ကြိုး များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
</tr>
<tr>
<td>များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
<td>များကို ဖြန့်ပျိုးရေးရန် ရေးသား မှုများ</td>
</tr>
</tbody>
</table>

Example: 'honouring the victory'
→ Although 足 my occurs used in the spoken language as a derivational morphological suffix to generate nouns from verbs (eg မှန်ကန့် ?ဗနီး 'succeed' → မှန်ကန့်ဗနီး 'success'), it is not used in syntactic constructions requiring a nominalised verb phrase, where a nominalising verb marker (eg realis သတ်) is found.

(40) [VERB] တည် → [VERB]

FB  MB
ကြည့်သည်စောင်းခံ → ကြည့်ကြည့်စောင်းခံ
laiʔjó.mjó.louʔ.tè → laiʔjó.dè
follow.NOM.do.REAL → follow. REAL
‘complies’  ‘complies’

→ [VERB] တည်- can simply be replaced with [VERB]- on its own.

(41) Avoidance of [VERB]ကျော်သင် → [VERB]-သတ် tā

a. FB

MB
ကျော်သင် ကျော်သင် → ကျော်သင်
?apji??akhia.jaj?st.dun.hà → ?apji??akhia.jajadà
shooting.cause.NOM.TOP → shooting.cause.REALNOM
‘the end of the shooting’  ‘the end of the shooting’

b. FB

MB
ကျော်သင် ကျော်သင် → ကျော်သင်
escort.PL.place.be.NOM NEG.exist.yet.QUOT say.'go'.POL.REAL →

MB
ကျော်သင် ကျော်သင် → ကျော်သင်
escort.PL NEG.place.yet.REALATTR.QUOT say.'go'.POL.REAL

‘It is said that the escorts are not yet in place.’

c. FB

MB
ညဘုံစွာ ညဘုံစွာ → ညဘုံစွာ
páwín.din.mjá.bà.bù → mjá.páwín.bà.bù
include.NOM.NEG.exist.POL.NEG → NEG.include.POL.NEG
‘there is no inclusion of …’  ‘…is not included.’

Both the meanings of 缶 lagáun in (42) and (43) can be replaced by a spoken Burmese equivalent.

(42) 缶 lagáun → ဖိ ဖိ ‘that; the aforementioned’;

[PHRASE]-ကြည့်စောင်း lagáun → [PHRASE]-တည် ‘both…and’

FB

မတည် ‘that; the aforementioned’
lagáun.sà?ou? lagáun.dg.gà →
that.book that.PL.SUBJ →
‘that book’ ‘the aforementioned [people/things]"
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that.book that.person/organisation.PL.SUBJ
‘that book’ ‘the aforementioned [people/things]’

(43) [PHRASE]-လက်ဗိုင်းရေး- lagáun → [PHRASE]-ကြား jó ‘either...or...’

student.PL.OBJ.either, teacher.PL.OBJ.either →

whether [they be] students or teachers [or whoever]’

(44) [NOUN]၁ဦး thàn → [NOUN]အောင် shi. ၁ဦး thàn is unusual in spoken Burmese.

Prime Minister.vicinity → Prime Minister.vicinity

(45) လည် së → လည်း kʰain. Causative လည် së never appears in normal spoken Burmese except when expressing wishes such as လည်းကြားကြား lâ.zê.din.dê come.CAUS.want.REAL ‘I’d like you to come.’

a. [HE] had [someone] ask.’
b.  
\[
\begin{align*}
\text{FB} & \quad \text{MB} \\
\text{act} & \quad \text{act} \\
\text{twin} & \quad \text{twin} \\
\text{in} & \quad \text{in} \\
\text{time} & \quad \text{time} \\
\text{phrase} & \quad \text{phrase} \\
\text{only} & \quad \text{only} \\
\end{align*}
\]
Exercise makes you healthy.'

c.  
\[
\begin{align*}
\text{FB} & \quad \text{MB} \\
\text{let} & \quad \text{let} \\
\text{people} & \quad \text{people} \\
\text{know} & \quad \text{know} \\
\text{Causes.really} & \quad \text{Causes.really} \\
\text{ask} & \quad \text{ask} \\
\end{align*}
\]
‘Let the people know.’

(46) အသာင်: သာင်(မ) သာင်(မ). In spoken Burmese, the location noun အသာင် သာင်(မ) ‘within’ is used only in time phrases.

(47) က [VERB] မ [VERB] မ [VERB] က [VERB] က [VERB] (except in the set phrase က က က က ‘before long’ which is well established)

(48) က က က က [VERB] က က က က [VERB] adverb formation

(49) က က က က [VERB] က က က က nè
(50) [VERB] jânjî jî → [VERB] nàin

a. FB

mb.tà.mlâ.la. bâng.nî.atwin.mâ
pjáunémâ.mlâ.pîjî? jânjî.bà.dé
NEG.long.before.month.little.within.in change.NOM.PL.be.PURP.exist.POL.REAL

MB

mb.tà.gin.la.?epâin.?atwin
?epâun?âél.dâ.pîjî?nàin.bà.dé
NEG.long.before.month.part.within change.PL.be.exist.can.REAL

‘There may be changes within a month.’

(51) [NOUN]-fû khaN → [NOUN]-mìcaN lau?

a. FB

mb.tà.mlâ.la. jàmànnà
mb.tà.mlâ.la. bâng.nî
NEG.long.before.month.part.within change.PL.be.exist.can.REAL

approximately five hundred students’

Replacing formal lexical items which do not occur in spoken Burmese with MB equivalents, as in (52):

(52) FB

mb.tà.mlâ.la. jâkû
mb.tà.mlâ.la. bâng
NEG.long.before.month.part.within change.PL.be.exist.can.REAL

‘now’

‘yesterday’

‘she’

Bisyllabic verbs where the second verb is unnecessary can be replaced by monosyllabic verbs, or the semantically redundant material from complex verb phrases can be removed altogether to reduce wordiness, as in (53)–(56):

(53) FB

mb.tà.mlâ.la. jau? jî
mb.tà.mlâ.la. bâng
NEG.long.before.month.part.within change.PL.be.exist.can.REAL

‘arrive’

‘go’

(54) FB

mb.tà.mlâ.la. bâng.nî
mb.tà.mlâ.la. bâng.nî
NEG.long.before.month.little.within change.PL.be.exist.POL.REAL

news.in reveal.show.set.POL.REAL

‘...it is reported in the news.’

(55) FB

[VERB] pîji? pà.dé → [VERB]-pà.mê
[VERB].IRINom is.POL.REAL → [VERB]-POL.IRR

‘will [VERB]’

‘the construction [VERB]-pîji? pà.dé is unusual in Modern Burmese.'
(56) \( FB \)
\[
\begin{align*}
[\text{PHRASE}] & \text{gaw} \rightarrow \\
[\text{PHRASE}] & \text{-tawun] pjo.dwá.dtáun tgl.já.bá.de} \\
[\text{PHRASE}] & \text{-fact} \ 	ext{say.inform.go.fact know.get.POL.REAL} \\
\end{align*}
\]

\[ \begin{align*}
\text{MB} & \text{[PHRASE]-gaw} \rightarrow \\
\text{[PHRASE]-tawun] pjo.dwá.bá.de} \\
\text{[PHRASE]-fact} \ 	ext{say.go.POL.REAL.EUPH} \\
\end{align*}\]

'It is said/known that [PHRASE]...
→ It is more concise to avoid multiple constructions using gaw tawun

(57) \( FB \)
\[
\begin{align*}
\text{tawun.má.go} \text{ téná.ţaje? jì.bá.de} \\
\text{news.PL.OBJ announce.cont exist} \\
\end{align*}
\]

\[ \begin{align*}
\text{MB} & \text{[PHRASE]-tawun] téná.né.bá.de} \\
\text{news.PL.OBJ announce.CONT.POL.REAL} \\
\end{align*}\]

'The news is being announced.'
→ the construction VERB-ţaje? jì- is never used in Modern Burmese

(58) \( FB \)
\[
\begin{align*}
?\text{tawun.dám.já.go} \text{ kct.in.ge.myu.?apò wèp\h.á.dá.de} \\
\text{prisoner.PL.on save.REM.NOM.on criticise.go.POL.REAL} \\
\end{align*}
\]

\[ \begin{align*}
\text{MB} & \text{[PHRASE]-dám.já.go} \text{ kct.in.ge.dá.né} \\
\text{prisoner.PL.OBJ save.REM.REAL.NOM.with concerning.SUBORD} \\
\end{align*}\]

wèp\h.á.dá.de
criticise.go.POL.REAL

'The rescue of the prisoners was criticised.'
→ the construction VERB-ţajë VERB-myu.?apò is never used in Modern Burmese

(59) \( FB \)
\[
\begin{align*}
pá\text{win.dín mā.ji.bá.bú} \\
\text{include.NOM NEG.exist.NEG} \\
\end{align*}
\]


‘...does not include.’

→ the construction VERB-ografía VERB-tehIn ma.ji is never used in Modern Burmese

(60) FB

<table>
<thead>
<tr>
<th>MB</th>
<th>FB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ma.pawin.bà.bú</td>
<td>ma.pawin.bà.bú</td>
</tr>
<tr>
<td>NEG.include.POL.NEG</td>
<td>NEG.include.POL.NEG</td>
</tr>
<tr>
<td>‘...does not include.’</td>
<td>‘...does not include.’</td>
</tr>
</tbody>
</table>

→ unnecessary wordiness can be avoided in Modern Burmese

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1 Introduction

The problem of tense in Burmese has been discussed more than once, but no consensus has yet been reached on the interpretation of the role of two opposing sets of verbal markers, namely variants of the marker မည် mè on the one hand, and the set of variants of the marker မည် သည် tè on the other. Some, e.g. Allott (1965), treat မည် mè as a marker of unrealised (irrealis) action and မည် သည် tè as that of realised (realis) action, while Kassevitch (1990) treats မည် mè as a future tense marker and မည် သည် tè as a non-future or past/present tense marker.

In brief, Allott’s arguments are as follows: the marker မည် mè, which, in Allott’s analysis, is the colloquial variant of formal Burmese မည် mji, denotes intentions, estimates, future events and assumptions: in other words anything which is not realised. On the contrary, the marker မည် သည် tè is the colloquial variant of formal မည် သည် tè and denotes a realised event or state (Allott 1965:289). This approach to the two markers is restated in the grammar dictionary published by Okell and Allott (2001).

Kassevitch, on the other hand, argues that the semantics of intentions, estimates, assumptions is present in the future tense of any language. Defining မည် mè as expressing unrealised – irrealis – action renders it indistinguishable from negation, which is an exclusively verbal category in Burmese, and yet one which describes semantically irrealis action. It appears also that future time is semantically explicit in the overwhelming majority of utterances containing မည် mè. He argues that the two opposed forms, namely VERB မည် mè and VERB-မည် သည် tè should therefore be treated as expressing future tense and non-future (past/present) tense, respectively (Kassevitch 1990:40–43).

1 Burmese examples in this paper are given in phonetic transcription in the introduction. Thereafter, when the discussion turns to Old Burmese, in transliteration, with phonetic transcription of written modern Burmese equivalents where relevant. Grammatical forms under discussion are transliterated rather than glossed in sections where they are under discussion. In transliteration, tones are marked in Old Burmese as they are in Burmese today, except in direct quotations from inscriptions. I have argued (Yanson 2002:163) that the sequence ဗ ဗ should be transliterated ဗ and not ဗ, which is the ALA-LC convention adopted elsewhere in this volume. The sources of quotations from inscriptions are given in the references.
However convincing the Kassevitch’s arguments may seem, it is difficult to avoid the feeling that the semantic content of the Burmese markers မတော် မဲ သို့ and စား သာ are essentially different from tense markers in other languages with established tense categories. Two factors prevent us from accepting Kassevitch’s analysis: firstly the merging of two tenses — past and present — in one of the markers, and secondly the applicability of both markers far beyond the semantic scope of tense.

Consider also the following example. The experiential verb marker ဖြူ ၌ (ဗု) ဖျာ ဗု is used in conjunction with the sentence-final markers မတော် မဲ သို့. ဗု and Allott (2001:135) describe the meaning of this particle as ‘to have VERB-ed before, have experience of VERB-ing, have ever VERB-ed’ (Okell and Allott 2001: 135). In fact, this marker is one of few over which most dictionaries and grammars agree in defining its meaning. This marker can combine with both မတော် မဲ သို့ and စား သာ. The co-occurrence of ဖြူ ၌ ဖျာ ဗု with စား သာ – here truncated to စတ သာ .before the question particle စတ လာ – is quite ordinary, as in (1).

(1) မတော် မဲ သို့

Burma.countr.to arrive.EXP.REAL.QU
‘Has [he] ever been to Burma?’

However, the question in (2) can be answered with (2), where ဖြူ ၌ ဖျာ ဗု occurs with the marker မတော် မဲ:

(2) စား သာ

‘He probably has.’

In (2) the marker မတော် မဲ cannot indicate that the action has not been realised: if it were interpreted thus, with two particles attached to the verb would be contradicting one another, with mutually exclusive semantic implications. It would be similarly anomalous to interpret မတော် မဲ in (2) as expressing future tense, since this would assign future tense to an action which has already been completed in the past.

It is not the purpose of this article to define the role of the စား သာ and မတော် မဲ, but rather to trace their origins and thereby to document the development of the grammatical expression of temporal semantics from the earliest attested stages of written Burmese.

The common verbal marker စား လား (EUPH/IRR), is used almost exclusively in conjunction with မတော် မဲ and other future tense / irrealis markers. Its meaning is defined by Okell and Allott (2001:220–1) as: ‘probably will VERB, possibly will VERB, will no doubt VERB, will VERB imminently.’ It is worth noting that Judson offers no definition of this marker, mentioning only that it is a verbal suffix (Judson 1953:910). The definition given in the Myanmar Language Commission’s Burmese dictionary (MLC 1991, vol. 4: 124) is: ‘marker showing that something is going to happen in the time to come’. This definition is rather evasive and does not distinguish the meaning of စား လား from the future tense marker which it usually precedes. The Russian–Burmese dictionary describes စား လား as a verbal marker used with verbs in future tense, expressing the personal
attitude of the speaker (Minina and Kyaw Zaw 1976:512). What is meant by 'personal attitude' becomes clear in (3), taken from the grammatical appendix to the dictionary (Kassevitch 1974:753):

(3) ကျွန်ုပ်လေး၊ လေးနီး ကိုက်လျင်
  ၃ဲလှုပ် ကျွန်ုပ်လေး လေးနီး ကိုက်လျင်
  ၃ဲလှုပ်ကျွန်ုပ်လေး လေးနီး ကိုက်လျင်
  ‘[I think] he will come’

I stumbled across a problematic usage of ကျွန်ုပ်လေး လေးနီး many years ago in Burma. Burmese translators were translating into Burmese (via English) a Russian text along the lines of 'by next year, steel production will amount to [...] oil production will total [...] and so on. The future tense was consistently translated by the Burmese using ကျွန်ုပ်လေး လေးနီး. Although the translators could not explain to me the role of ကျွန်ုပ်လေး လေး in this case, they resolutely denied any possibility that it admitted even the slightest degree of uncertainty.

Even this is not enough to give a clear impression of the function of the marker ကျွန်ုပ်လေး. By turning to diachronic data, the picture becomes clearer. Various dictionaries mention that ကျွန်ုပ်လေး is a lexicalised conflation of euphonic particle ကြား လေး and the archaic future/irrealis marker ကျွန်ုပ်လေး. Since ကျွန်ုပ်လေး itself is almost always followed by a future/irrealis marker, the sequence ကျွန်ုပ်လေး ကျွန်ုပ်လေး လေးနီး would appear to contain, underlyingly, two future/irrealis markers. However, the marker ကျွန်ုပ်လေး was originally a Pali optative suffix. In light of this, the combination ကျွန်ုပ်လေး ကျွန်ုပ်လေး လေးနီး does not seem so unusual any more. The Pali optative is usually defined as expressing desire, its meaning corresponding approximately to the English 'let it be that VERB; let it VERB' and so on.

(4) ကျွန်ုပ်လေး လေးနီး
  ၃ဲ လှမ်
  ‘He will come’

The simple utterance (4) might be a response to a question. It has a laconic tone, and does not indicate the attitude of the speaker to the event in prospect, which is uncommon in Burmese speech patterns. Inserting ကျွန်ုပ်လေး into the utterance, as in (3) softens the unpleasant fact of the absence of the person who will come, and may be translated: ‘He will come (and I want him to come).’ The use of ကျွန်ုပ်လေး in the Soviet Russian translations about steel production above incorporates some personal attitude with regard to the action, with the effect of adding ‘...let it come to be so’. It becomes clear now why ကျွန်ုပ်လေး is rare with first person subjects: this is an observation made by Okell and Allott (2001:220). Speaking of oneself with additional emotional content might be impolite.

Besides expressing desire, the optative voice in Pali often imparts a degree of imperative, especially when used by seniors or persons of authority. A phrase using the Pali optative like 'May the monastery be built' clearly has different meaning depending on the originator of the utterance. Spoken by an ordinary man, it might mean 'I would like the monastery to be built' while spoken by a king it would carry the force of an order 'Build the monastery!' The breadth of meaning of the Pali optative echoes the many other
usages of ဗိုးလာ in Burmese. For instance, parents shouting at a child climbing too high in a tree might say (5): clearly they do not want the child to fall, but are speaking in their capacity as the child’s seniors whose words should be taken seriously.

(5) ပြော်ရွက်မှု အများအားလုံး
  ?au? သာလာချင်မခ
  down fall.EUPH/IRR.IRR
  ‘You’ll fall down.’

The problem of how to define ဗိုးလာ and its role in the morphology of Burmese remains, but it cannot be denied that the diachronic data shed some light on the semantics of ဗိုးလာ. The analysis above accounts for the function of ဗိုးလာ within the construction VERB-၃ဗိုးလာ VERB-၃ဗိုးလာ.

2 Tense markers in Old Burmese

I proceed now to the main topic of the article: tense in Burmese in a diachronic perspective. Old Burmese is attested in the Pagan inscriptions of the twelfth–thirteenth centuries. During this period several phonological and grammatical changes took place in the language, and the language of the twelfth century can be distinguished from that of the thirteenth. In phonology, for instance, a contrast between the vowels e and o emerged in the thirteenth century, but no such contrast is attested in the inscriptions of the twelfth century. In syntax, the marker ဗိုးလာ စိန်စစ်’ first appeared as a verbal marker in the texts dating from the thirteenth century. This marker is the most common past/present tense marker, pronounced ထ in modern formal Burmese.

The tense markers in (6) are attested in twelfth-century inscriptions, and are still preserved in modern formal Burmese.

(6) OB  transl  WB
  ဗိုး / ၃ဗိုး e* / e’  ?_i
  စိန်စစ် စိန်စစ် သတ်
  အရ အကျင်  ?_an

In modern formal Burmese, ထ_ is a near-synonym of ဗိုး. ထ_ is perhaps associated with a slightly higher register, and is preferred particularly in Nissaya-style texts. The marker စိန်စစ် သတ် is archaic and strongly emphatic, expressing past/present tense. In the modern language, အရ_ is used only to express future tense in Nissaya-style texts.

In inscriptions, ဗိုး e* functions in most cases in the same manner as ထ_ in modern formal Burmese, but it is sometimes found in contexts where in modern Burmese the future tense marker would be used: consider the data in 0.

(7) ကျွန်ုပ် အက်း ကျင်း ကျင်း ထိုး ထိုးထွက်ခြင်း
  နွေး အိချစ် ဆေး နိမ်း တိုး လန်း ကာလ.
  future time ATTR I grandchild among also
In (7), the verb  phyak'chi ‘destroy’ is followed by the past/present tense marker e*. According to the rules of modern Burmese, however, if future time in the sentence is expressed lexically, the predicate must take a future/irrealis tense marker such as mè. Analysis shows that constructions as in (7) were used when future time was semantically overt in the sentences, but where the action was non-desiderative, for instance in utterances such as ‘the world will be destroyed,’ ‘...will infringe my donation,’ ‘...will not care about my donation’ and the like.

The inscriptions also contain examples of the marker e* affixed to nouns and adverbs in sentence final position, as in (8) and (9). In contrast is exclusively a verbal marker in modern Burmese usage.

(8)  
my aunt EMPH. my mother e* 
‘(It was) my mother’s younger sister (who was) my mother’

(9)  
house EMPH pleasant also pleasant able ADV e* 
‘As for the house, (I have made it) as pleasant as possible’ (Ei Maung 1958:177)

(8) and (9) are important for determining the semantics of the marker e*. I shall refer to them again, after first describing two other Old Burmese markers which have been described as tense markers.

The marker  satañ" (also spelled  sate") seems to have been used in the same way as e*. The construction VERB-  satañ" (or VERB-  sate") seems to be equivalent to the construction VERB- e*, and appears in similar contexts. Consider (10) and (11), from the same inscription as (8) and (9):

(10)  
‘(I) want to be the one who does not forget the three Jewels’ (Ei Maung 1958:13)

(11)  
‘(I) want to achieve the state of Omniscience’ (Ei Maung 1958:13)
No doubt the markers ꞌe ꞌe and ꞌco ꞌOꞌ:' \(\text{sate}''\) could be transposed in (10) and (11). There are numerous contexts in the inscriptions where the two markers appear to be completely synonymous: the emphasis indicated by ꞌOꞌ: ꞌtafifi in modern formal Burmese can often not be traced in Old Burmese. In modern Burmese, ꞌOꞌ: ꞌtafifi is analysed as a reduced or weakened form ꞌco ꞌthi combined with the emphatic particle ꞌOꞌ: ꞌti (Okell and Allott 2001:88), but no such analysis is possible in Old Burmese: during the twelfth century, when ꞌOꞌ: ꞌsatafifi' was already common, the marker ꞌco ꞌsa ꞌnĩ didn't yet exist. In fact, ꞌco ꞌsatafifi' is a combination of Pali third person pronoun ꞌsa and an emphatic particle ꞌOꞌ: ꞌtafifi', associated with nouns, just as its variants ꞌco ꞌsatafifi' and ꞌco ꞌsatafifi' are combinations with the Pali third person singular pronouns ꞌco ꞌsa and ꞌco ꞌsa, equivalent to the modern Burmese third person pronoun ꞌSa sū. These combinations in Old Burmese reflect Pali finite participles in sentences with no copula. While there are no participles in Burmese, in Pali they are common, used as main predicates in finite clauses and in independent sentences. The Pali sentence (12) is an illustration of Warder's (1999:57) statement that 'Since nouns include participles, we quite often find a participle in its verbal function (equivalent to a finite verb)' (Warder 1999:57).

(12) \(\text{aham ... tassa yafifiassa yajeta}\)

'I was the performer of that sacrifice.'

In Burmese, the verb–pronoun construction VERB-\(\text{Sa}\) sū, corresponds to the Pali participle with the meaning 'the one who VERB-s' or 'the VERB-ing one'. Unlike Pali participles, which can function both as attributes to noun phrases and as the predicates of finite main clauses, the Burmese construction VERB-\(\text{Sa}\) sū cannot and could not be a noun phrase attribute, such that constructions of the type *VERB-\(\text{Sa}\) sū + NP, corresponding to English phrases such as 'crying child', 'running man' and the like, were and are ungrammatical. Such constructions are common in Pali, however.

Burmese used the construction VERB-\(\text{Sa}\) so, where \(\text{Sa}\) so is a Pali word (the equivalent of Burmese ꞌSa sū) governed by the rules of Pali grammar. It was used in contexts where Pali would have the construction 'participle + NP' (see Yanson 2002 for more details). Using a foreign word in the place of native ꞌSa sū apparently enabled Burmese to overcome the constraints restricting the use of the native VERB-\(\text{Sa}\) sū construction. Originally, this new construction was inconsistent, and the 'participle + NP' construction appeared in three variants (13):

(13) \(\text{VERB-\(\text{Sa}\) so + NP}\)
\(\text{VERB-\(\text{Sa}\) sa + NP}\)
\(\text{VERB-\(\text{Sa}\) sū + NP}\)

It is clear that by analogy with the other two variants, the VERB-\(\text{Sa}\) sū + NP construction started to appear in alternation with the other two.

Initially, the constructions VERB + ꞌco ꞌso / ꞌco ꞌsa / ꞌco ꞌsū were used to represent Pali participles in both attributive and predicative functions but in the course of time these two functions diverged, the construction VERB-\(\text{Sa}\) so representing participles in attributive function and VERB-\(\text{Sa}\) sa representing participles in finite function. The construction
VERB-+)/sU was gradually eliminated from the set of three in (13), apparently having become ungrammatical.

Essentially, the construction VERB-+)/sa is a nominalised verb, and therefore the sentence containing it requires a copula. Burmese started to use the emphatic particle etc./go tafifi'/te instead of VERB-+)/sa: this is how the combination etc./go satafifi" came into existence. As shown in examples (14)-(16), the morpheme etc./go tafifi" did not have a clear emphatic meaning, and this fact supports the assumption that it functioned like copula and not with its original function of nominal emphatic particle.

Analysis shows that sentences in inscriptions consisting solely of NPs are always followed by etc./go tafifi", as demonstrated by the following examples (14)-(16):

(14) i mhya so kā. Kloī' sanghi ka vatthu te.

this much ATTR TOP monastery Sangha from property te

‘All this [is] the property of the sangha’ (Aung Thaw 1972:252)

(15) alhū kā. cañ' so khyac' so mlat' so uccā nhan' nhan' te.

donation TOP clean ATTR beloved ATTR noble ATTR things only te

‘As for the donation, [it is] only clean, beloved and noble things’

(Aung Thaw 1972:266)

(16) Kloī' sac' kla so uccā te.

monastery new cost ATTR things te

‘(These are) things spent for the new monastery.’ (Ei Maung 1958:18)

Modern Burmese grammar allows sentences consisting solely of NPs with no copula. It may therefore seem unconvincing to argue that in Old Burmese the marker etc./go tafifi" was used as a copula. (17) is grammatical in modern Burmese, but in fact such sentences will normally end with an additional particle, such as polite ol pà or emphatic ò phè, as in (18)a and b.

(17) òl teáln.dā

he school.son

‘He is a student.’

(18) (a) òl teáln.dā.bā (b) òl teáln.dā.bè

he school.son.POL he school.son.EMPH

‘He is a student.’

In modern Burmese, emphatic marker ò phè may be thought of as a colloquial equivalent for formal etc.: tī, but ò phè does not necessarily convey emphasis in final position in sentences consisting of NPs. The morpheme ol pà has very broad meaning, both as a
grammaticalised verbal particle indicating politeness and as a main verb, meaning ‘be included’. Both have a range of grammaticalised functions, and occupy more than a page in Okell and Allott’s dictionary (2001:113–115). Any vestige of the lexical content of ol pà in (18a might perhaps be glossed as ‘be present’.

In (19), ol pà can no longer be used after the NP if it is followed by the copula ０ phji?:

(19) *living #taūn. da. bà phji? tê
he school.son.POL be.REAL

A sentence consisting of NP + ０ phé with an additional copula is grammatical, but then ０ phé clearly imparts emphasis or carries the meaning ‘only’, as in (20), which could be translated ‘He is just a student (and not yet a teacher)’ or ‘He is indeed a student (and not employed).’

(20) living #taūn. da. bè phji? tê
he school.son.POL be.REAL
‘He is just a student.’

The ungrammaticality of ol pà in (19) suggests that ol pà and the copula are mutually exclusive, and that they have a similar grammatical function.

This excursion into the modern language sheds light on our understanding of Old Burmese ０: taññ” in the combination ０: sataññ” : we may infer that in Old Burmese sentences consisting of a string of NPs were ungrammatical if not followed by a copula. In contrast, such sentences were common in Pali, and Old Burmese ０: taññ” appears to match the Pali pattern. On the one hand, sentences ending with ０: taññ” contain no copula, which corresponds with Pali practice, but on the other hand, there is something in the end of the sentence which can be associated with a copula, which concurs with the rules of Old Burmese grammar. The sense of emphasis or confirmation conveyed by ０: taññ” is semantically close to that of a true copula. It may be worth noting that is ０: taññ” is shorter and simpler to carve on stone than the full-blowed copula ０: phlac’ e” which it replaces.

Now it becomes clear that ０: e” and ０: taññ”, which seem to belong to one paradigm, in fact have completely different functions: the first as a grammatical marker and the second as a pronoun with a surrogate copula. Accordingly, the verbal syntagma from example (10) ０: phlac’ liuv’e” ‘want to be’ has the structure VERB-０: e”, but the syntagma from example (11) ０: ra liuv’ sataññ” ‘want to get’ is just an NP with the internal structure VERB+NP ‘the one who VERBS’.

ʃ aṁ’

Let us proceed to the marker ʃ aṁ’. It is not easy to trace the semantics of this marker. In some cases ʃ aṁ’ seems to express a straightforward future tense, as in (21) and (22):
(21) အဆက် ရဟန်း ချင် နာ မက်န္း ကြာ လာ နာ စီစားမည်
asak' rhaññ' e' hú muká ná plu lá arñ' sate.
life long e* say if 1 do come arñ' sate
‘If I live long I will do (it).’
lit.: ‘If life is long, I am the one who will do it.’ (Aung Thaw 1972:64)

(22) ဝရှု နာ မက်န္း စီစားမည်
trya' ná arñ' so parisat' taká
law listen arñ' ATTR audience all
‘All the audience that will listen to the prayer’ (Aung Thaw 1972:153)

But often သာ arñ' carries a clearly desiderative semantic load and its meaning is very close
to the Pali optative. Consider (23) and (24):

(23) ပုဖက် ကျွန်ုပ် အက် မက်န္း နားလည်ပြီး
phyak' so su kā Avici iray' là arñ' so te,[...]
destroy ATTR person TOP Avici hell come arñ' ATTR EUPH
‘Let the one who destroys (my donation) go to the hell Avici’
lit.: ‘...be the one who will go to hell...’ (Aung Thaw 1972:44)

(24) ဗိုလ် သာ နားလည်ပြီး
bhanda.sanin' ná planin' san' kiuv' atiuw' miy' arñ'.'
treasurer (name) OBJ we ask arñ'
‘Let us ask the treasurer...’ (Aung Thaw 1972:158)

သာ arñ' in (23) and (24) could be glossed simply as future tense: ‘The one who destroys will
go to Avici’ and ‘We shall ask the treasurer’. What convinces me that it is correct to
interpret သာ arñ' here as conveying modality is not only the context, but also the fact that သာ arñ'
constructions often alternate with causal constructions. Consider examples (25)–(28):

(25) ဗိုလ် သာ နားလည်ပြီး
ly' iray' krít 8 pá á krak' cyî' sate.
this hell big 8 CLF in boil CAUS sate
‘May (he) be boiled in eight big hells’ (Aung Thaw 1972:142)

(26) ကြယ် သာ နားလည်ပြီး
arap' 3 pá sasana taññ' arñ'.
place 3 CLF Sasana stable arñ'
‘May the Sasana be stable in three places.’ (Pg, 134)

(27) ရဟန်း ကြယ် နားလည်ပြီး
iray'.avicy'.ká.arthak'. ayan'.tiuv'.ká.ok'.athay'.yan' phlac'.cyî'.kun'.sate.
hell.Avici.TOP.above those.PL.TOP.below.inside.in be.CAUS.all.sate
‘Let the hell Avici be above and they below.’ (Aung Thaw 1972:44)

2 In transliterations of inscriptions, subscript  Casino insults, and  are transcribed as elsewhere in this volume, e.g. သာ arñ'.
The causative marker �� ciy' and the marker �� arî' never co-occur and, as can be seen from (25)–(28), they occupy the same position in sentences. When reading inscriptions there is a strong feeling that the causative �� ciy' and the marker �� arî' are interchangeable. These observations might suggest that the marker �� arî' is derived from the Pali optative inflectional suffix -arî. Besides its semantics, the spelling using anusvara (..:.) is further evidence of this, since this symbol is typically used for Pali loans in Burmese. Another convincing indication of the optative flavour of �� arî' is its function in the Dhammathat, as in (29):

(29) �� akraî' sî sanî' mhteï' rë' so' laîn' ne pât arî'.

some person SUBJ rely SUBORD either live pât arî'  'Suppose someone lives either relying (on patrons) ...

  �� taïn'khiu rë' so' laîn' ne pât arî'.

lodge SUBORD either live pât arî'  ...or lodges (somewhere)...

  �� thîu sî tu' sanî' se khai arî'.

that person PL SUBJ die REM arî'  ...and then these persons die.' (U Kyaw Dun 1950:37)

In (28) the marker �� arî' clearly has the meaning ‘let it be that...’, which is very close to the meaning of Pali optative. We may recategorise �� arî' as a marker of modality instead of tense. Consequently, the marker �� e* cannot be treated as a tense marker either, since it is not opposed semantically or positionally to any other marker with temporal semantics except �� arî'. The unexpected occurrence of �� e* with sentences consisting only of NPs and its occurrence in adverbial constructions, as demonstrated earlier, would justify categorising �� e* in the same way as �� arî'.

The marker �� e* could, according to its semantics, be treated as a marker of narrative sentences, in a three-way opposition between narratives, interrogatives and imperatives. But this opposition breaks down because �� e* can combine with interrogative marker �� lo. In fact, �� e* always precedes �� lo in interrogative sentences, and so cannot form part of the same paradigm. �� e* cannot therefore be defined as a narrative sentence marker.

We may reasonably admit that in the Old Burmese dedicatory inscriptions, tense did not exist as a purely temporal category. There was instead a modal—temporal system expressed by the opposition between �� e* and �� arî* which developed as part of the
language of dedications and which therefore functioned within a restricted domain of the
language. The ambiguous occurrences of e* with NPs and adverbs should in this case be
treated as anomalous mistakes.

As mentioned above, the inscriptions of the thirteenth century are distinguished by the
introduction of the finite verb marker *safit'. At the same time, a homonymous
subject marker *safit' came into use. Both markers started to be used with the
functions of *el in the modern language (28). Modern formal Burmese *safit' was
described above as a past/present or realis verbal marker. It is the most common such
marker, used with main predicates of independent sentences as in (28)a, to end embedded
sentences as in (30)b and to introduce attributive clauses in compound sentences as in
(30)c.

(30) a. *safit' *el
    he go.REAL `He went.'

b. *safit' *el go.REAL.OBJ I know.REAL
    `I know that he went.'

c. *safit' *el go.REAL.OBJ I know.REAL
    `I know the house that he went to'

In modern formal Burmese, the marker *el, unlike *safit', is used only in predicates of
independent sentences. When used with the predicate of an embedded sentence, *el allows
the sentence to function as a complex NP which may take nominal case-marking
suffixes as in (30)b. *safit' is also the most common subject marker in modern formal
Burmese.

In the modern languages, there is also a morpheme *el meaning: 'a specialist in NOUN',
'a person in charge of NOUN' as in (31).

(31) bândga,ôë thamín,ôë phoun,ôë
    treasure 'specialist' rice 'specialist' glory 'specialist'
    'treasurer' 'cook' 'the respected one'

A similar lexeme *safit' appeared in similar compounds. It also occurred as an
freestanding noun *safit', with various meanings, as illustrated in (32)–(34).

(32) asa nhìn ká rvá sukî
    asa nhìn EMPH village person.big
    'the ?witness [was a] village headman....'
    (University Textbook 1979:7)
(33) ဗ ဗမ်း ရော့လျှင် ဗုဒ် ဗျင်း ကြောင်စွဲ
i asaṁñī surṁ yok' lhyaṁ' naṁ' ra sate
do asaṁñī three.CLF in entrust sate
'(...have) entrusted to these three ?officials.'
(University Textbook 1979:21)

(34) လုံး ဗမ်း ရော့လျှင် ဗုဒ် ဗျင်း ကြောင်စွဲ
nā lānū asaṁñī śī akīnuv' 2 yok' cuṁ kiuv' avat' lānū' vaṭ' pe e*
I.also asaṁñī brothers 2.CLF.both.to clothes.also wear.give.e*
'I also gave clothes to the ?specialist brothers.'
(University Textbook 1979:21)

In some cases, the lexeme (ဗျင်း (a)saṁñī has a meaning something like 'living being,' 'person', as in (35) and (36):

(35) စွဲးများဗျင်း စြုပွဲဗျင်း များများများများ ဗျင်း တိုင်း
sattawā phlac' sole amvey' may' artiy' may' saṁñī phlac' sey'
creature.be.ATTR.EUPH fur.without skin.without creature be.CAUS
'If (it) is a living being let it be without fur and skin.'
(Aung Thaw 1972:140)

(36) ဉာဏ်ဗျင်း စွဲးများဗျင်း စြုပွဲဗျင်း တိုင်း
taryā nā pā nhāṁ' palāṁ niūṁ so saṁñī phlac'.liuv'sate.
law.five.CLF.with full.ATTR.being be.want.sate
'(I) want to be the person imbued with the Five Noble Truths.'
(Aung Thaw 1972:142)

In many cases ဗမ်း saṁñī appears in the same contexts as the third person pronoun ဗျာ sū 'he, she', in the constructions of the type 'the one who VERBS', as in (36). In modern Burmese, we would find only ဗျာ ñī in this context. In Old Burmese, the referent of the pronoun ဗျာ sū is restricted to persons, and not simply to animate nouns like (ဗျင်း (a)saṁñī. If in (35) the inscriber had used ဗျာ sū rather than ဗမ်း saṁñī, the implication would have been that only humans were being referred to. In contrast, ဗမ်း saṁñī embraces all living things including animals, as denoted by the term sattawā.

Given the broad semantic scope of ဗမ်း saṁñī, it is not surprising that it started to be used with verbs to represent Pali participles as an alternative to Burmese ဗျာ sū and Pali ဗျာ sa.

The modern Burmese construction VERB-ဗျာ ñī is the finite form of the verb with a realis marker expressing past/present tense. Originally, this was simply a nominalised NP. (37) may thus be analysed differently in Old Burmese and in the modern language. The Old Burmese reading (37)a has a tenseless topic-comment structure 'I the going one,' while the same sentence may be analysed differently in modern formal Burmese (37)b as having a subject-predicate structure: 'I go/went'.
Old Burmese utterances ending in \( \text{sa} \) can function like NPs, which utterances ending with \( \text{e}^* \) cannot, and this supports our conclusion that the modern formal Burmese \textit{realis} verb marker \( \text{e}^* \) is derived from \((\text{sa})\text{sa} \).  

Two more points remain to be clarified in the context of \( \text{sa} \). Firstly, it seems uncontroversial that in Old Burmese the Pali loan \( \text{sa} \) in the construction \text{VERB-\text{sa}}\text{sa}\) alternated with Burmese \( \text{sa} \). One might go on to predict that the construction \text{VERB-\text{sa}}\text{sa}\) would be followed by the emphatic particle \( \text{ta} \), mirroring the situation with the construction \text{VERB-\text{sa}sa}\), but in fact, \text{VERB-\text{sa}}\text{sa}\) is never followed by \( \text{ta} \).

Secondly, it remains to be explained why \( \text{sa} \) started to be used with agents and gradually became the subject marker. The answer may have to do with formal agreement between agent and action. In Burmese, agent and action do not have to agree, while in Pali agent and action must agree in person and number. In modern formal Burmese, there is a possessive noun marker \( \text{i} \) which is identical in form to the verb marker \( \text{e}^* \). Unlike the two homonymous markers \( \text{e}^* \) which we have shown to be historically related, the two markers \( \text{i} \) seem not to be related in any way. In Old Burmese, the use of the two \( \text{e}^* \) markers suggests some sort of agreement between agent and action, as in (38), where the the first marker \( \text{e}^* \) is used within the NP ‘Maung Ba’s house’ and the second with the verb, which enables us to analyse the use of \( \text{e}^* \) as a formal expression of concordance between agent and action.

(38) \( \text{moi\'bha.e}^* \text{im\' phyak ne e}^*. \)  
Maung Ba.POSS house destroyed.CONT REAL  
‘Maung Ba destroyed his (own) house.’

Taking into consideration the propensity of Old Burmese to mimic the grammatical patterns of Pali, we may speculate that the lexeme \( \text{sa} \) was first used to mark agreement of an agent with its action. It is also possible this was not the only reason why the function of \( \text{sa} \) came to be extended: a further explanation may lie in the features of the Burmese equivalents of Pali participles. We are already familiar with the three forms, \text{VERB-\text{so}}\text{sa}, \text{VERB-\text{sa}}\text{sa} and \text{VERB-\text{sa}sa}, all of which were Old Burmese constructions of the type ‘the one who \text{verbs},’ ‘he who \text{verbs},’ all associating an action with a person. If Pali is to be mimicked, then if an action is marked to associate it with a person, then the agent would be marked in the same way.

It is interesting that the modern Burmese morpheme \( \text{ha} \), unlike \( \text{e}^* \), cannot appear immediately after the verb. Rather, it follows the verb’s tense markers, such as the colloquial marker \( \text{t\'e} \). Instead of \( \text{VERB-\text{ha}} \) we find the construction \text{VERB-\text{t\'e}}, a conflation of \( \text{t\'e} \) and \( \text{ha} \). By ‘undoing’ this conflation, we may say that the construction \text{VERB-\text{t\'e}} is underlyingly equivalent to \( \text{VERB-\text{ha}} \). I suggest that if \( \text{ha} \) were used with an action in the same way as \( \text{e}^* \), the action would...
become depersonified, disassociated from its agent, since the morpheme =args hâ denotes 'thing'. Somehow Burmese did not associate the agent with a personal referent and we find subject marker args hâ immediately after the subject.

In modern formal Burmese Verb-�i construction is functionally parallel to active Pali participles, which show agreement with associated agents. Burmese uses args 8i with agents to indicate the relationship between the agent and the action. Used in this way, the function of args 8i is similar to agreement. However, args hâ is not used to form participle-like constructions in this way, because we know that in an earlier form of the language participles in Burmese were marked as actions involving persons, and so a word for 'thing' could not replace args 8i. In the colloquial language, therefore, args hâ is found where args 8i can be used in the formal language, without any participle-forming function: it is simply reflecting the pattern of the formal language.

Let us now return to the characteristics of the 'new' construction Verb-8i in Old Burmese. Unlike the construction Verb-sa, the new construction could not be followed by emphatic particle sâtafifi". But if our speculation about the grammatical features of the construction Verb-sa, and the role of particle sâtafifi" following it, are correct, we expect the construction Verb-8i also to be followed by sâtafifi". In fact, Verb-sa is never followed by sâtafifi". The explanation may be as follows: Verb-e* cannot be followed by sâtafifi" because sâtafifi" is a nominal particle, and the construction Verb-e* is purely verbal and has no nominal features. We have supposed that the two functions of saâni’ resembled two functions of e*: agreement between agent and action.

The 'new' Old Burmese construction Verb-saâni' behaved in two ways. On the one hand, it was used like the construction Verb-e*, but on the other — being a nominalised verb equivalent to the construction Verb-sa' — it had to permit the particle sâtafifi" after itself. The first behaviour appeared to dominate, and this is why in modern formal Burmese 8i and args 8i have become synonymous in that both are analysed as purely functional and syntactically equivalent.

Now we can make some final conclusions regarding tense in Old Burmese. Of the four markers which are treated as tense markers in the modern language and which also appear in Old Burmese, only two, namely e* and ari', are analysable as true tense markers, expressing temporal semantics. The other two, namely saâni' and saâni' are lexical and as such uninvolved in expressing tense.

Furthermore, since there is plenty of evidence that the marker ari' is a Pali loan, it seems that at the time when Old Burmese was first written (by scribes who were apparently familiar with Pali), the only grammatical marker analysable as a tense marker was e*. But if e* was a tense marker, there must have been at least one additional tense marker to contrast with it, but none besides ari' can be found in the inscriptions. So we surmise that when Burmese was first written, there may have been some other 'original' marker in existence which was in opposition to e*, but which was not used in the inscriptions for stylistic reasons. The semantics of the Pali optative suffix ari' perfectly matched the style of the formal dedicatory inscriptions since it enabled the expression of both future and desiderative semantics and therefore would have been a natural choice over the putative 'original' marker, which may have been retained in ordinary speech and reappeared when the inscriptions became less canonical. Unfortunately, there are no traces of existence of such a marker. The marker mji, the
main future tense marker in modern formal Burmese from which all other future tense markers originate (see below), is definitely a later development. Therefore the most plausible conclusion concerning the grammatical expression of tense in the ‘pre-Pali period’ of Burmese might be as follows: temporal semantics could not be expressed by grammatical means at that time. The marker \( \text{e}^{*} \) was used to express affirmative statements independent of tense. This characteristic of \( \text{e}^{*} \) is confirmed by its appearance in sentences where future time is expressed lexically, as in (7) and also in sentences consisting only of NPs or with adverbial constructions, as in (8) and (9).

This assessment of the situation in Old Burmese becomes more plausible if we take into account the situation in present-day Arakanese, a major dialect of Burmese, in the context of the discussion further below of the Burmese future tense marker. The general conclusion is that in Old Burmese two grammars functioned alongside one another. One was restricted stylistically to dedications, and used a Pali–Burmese modal–temporal system with an opposition between \( \text{e}^{*} \) and \( \text{am}' \). In ordinary speech, however, temporal semantics could be expressed only lexically.

The next stage in the development of the category of tense in Burmese was the introduction into the texts of the marker \( \text{mann}' \), the main future tense marker in modern formal Burmese. It is first met in the texts of the sixteenth century, where its function appears to be no different from that in modern formal Burmese. Examples (39) and (40) are from a sixteenth-century text:

(39) 
\[ \text{mùuv'ha'nì' mìuv'ko'nì' sìuv' khlì.to.mù.[mañì]} \text{'phrac'ì.so kìo'ì'.} \]
Mohnyin.Mogaun.to march.HON.IRR be.because
‘Because [he] will march to Mohnyin and Mogaun…’

(40) 
\[ \text{noù.anà.gàt' là.lat.'mañì' maì'ekaràj'.tiùv'.[sañì]} \]
future come.EUPH.IRR King.Ekaraja.PL.SUBJ
\[ \text{i sàsanà.HON.OBJ support.like support.CAUS.ATTR} \]
‘Let the Kings who come in the future support sàsanà in the way I do.’
(Archaeological Survey of Burma 1955:22)

The marker \( \text{mann}' \) probably appeared somewhere in the fifteenth century, and was influenced by the form of the marker \( \text{sañì} \). \( \text{mañì} \) and \( \text{sañì} \) form a pair with phonetic and functional similarities. They share a common rhyme and tone, nominal syntactical markers may be suffixed to both, and, unlike other markers, both may affixed to the main predicate of independent sentences, to predicates of embedded sentences and to predicates of attributive clauses (in the latter case with induced creaky tone: \( \text{sañì}^{*} \) and \( \text{mañì}^{*} \)).

However, the origin of the marker \( \text{mañì} \) is unclear. Its origins may lie in the Old Burmese noun suffix \( \text{maì} ' \) without NOUN, NOUN-less’. Conceiving of the future as something lacking or non-existent, as opposed to the past and present, which are existing
or actually experienced, is a plausible pathway for the grammaticalisation of မိမိများ as a future tense marker. There is nothing else in Burmese texts to suggest that origin of the marker မိမိများ anything other than မိမိများ.

As promised, I will now turn to Arakanese, in which future tense and intention are indicated with the same marker. Briefly stated, the facts in Arakanese are as follows: the marker ဖိုး ဖိုး regularly corresponds to the Burmese marker မိမိများ မိမိများ(မိမိများ မိမိများ), as in (41).

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Arakanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>လွမ်</td>
<td>ဖိမ်</td>
</tr>
<tr>
<td>come.IRR</td>
<td>give.IRR</td>
</tr>
</tbody>
</table>

(Will come.) 'Will give.' (Will come.) 'Will give.'

The marker ဖိုး ဖိုး is also used both in Burmese and in Arakanese to form constructions denoting purpose, as in (42):

| အနေ | ဝဘိ | နဝ | လွတ် | အမေ aides | money need.REAL |
|------|------|----|-------|-------------|
| rice buy.PURP | money need.REAL |

(In order to buy rice, money is needed.)

In Arakanese there is a marker ဖိုး ဖိုး which corresponds to the markers ဖိုး ဖိုး ဖိုး and ဖိုး ဖိုး modern formal and colloquial Burmese. The situation in Arakanese is rather ambiguous, allowing two different interpretations. On the one hand, we can treat the markers ဖိုး ဖိုး and ဖိုး ဖိုး as realis-irrealis markers analogous to colloquial Burmese ဖိုး ဖိုး and ဖိုး ဖိုး. Such an analysis forces us to posit two homonymous morphemes ဖိုး ဖိုး in Arakanese with separate functions but identical form, one an irrealis/future marker and one a marker of purpose. On the other hand, however, can we be sure that there are utterances in Arakanese where a main predicate with the marker ဖိုး ဖိုး cannot be analysed other than as future time, thereby justifying an analysis with two homonyms? Can we prove that not all Arakanese constructions with ဖိုး ဖိုး are necessarily purpose clauses? The idea of the future as something to strive for seems quite logical, so it may be that Arakanese happens not to distinguish between the semantics of future and of purpose. If so, the marker ဖိုး ဖိုး, the equivalent of the Burmese realis marker, should be treated as indicative of affirmative action and therefore distinct from the interrogative, imperative and negative sentence markers. The situation in Arakanese requires further research, but it certainly contributes to a clearer understanding of the possibilities for grammaticalisation in the development of tense categories. It is also relevant to the present discussion, because it allows us to speculate that the common ancestor of Burmese and Arakanese did not make use of tense categories, and that tense categories developed independently in the two languages, following different, though equally logical, conceptions of 'future'.

If the above hypothesis about the origin of the marker ဖိုး ဖိုး is accepted, it now remains for us to account for the different written and phonological form of its colloquial equivalent ဖိုး ဖိုး. The reasons for the difference lie in the evolution of the common Burmese rhyme written -ချင်း -ချင်း, pronounced in the modern language as [i], [e] or [ɛ].
Words in -ဗား-အိုင် in modern formal Burmese are almost always pronounced with [i], even though the rhyme of the same word in colloquial Burmese may be read [ɛ]. The readings of this rhyme may be ranked, with [i] in formal, high register and [ɛ] in colloquial, low register, probably because the phonological inventory of early Pagan-period Burmese contained only one front vowel [i]; the vowels [ɛ] and [ɛ] appeared later (see Yanson 1990 for details). We may argue that because of this, the vowel [i] retained stylistic ‘seniority’ over the later vowels, and continued to be associated with formal register. Otherwise, the progression of the sound change [i] > [ɛ] in words spelt with -ဗား-အိုင် led to the respelling of many words, which is why many words in the modern language exist in two forms: one spelt -ဗား-အိုင်, pronounced [i] and used in the formal language and another spelt -ဗား-၀, pronounced [ɛ] and used in the colloquial language, as in (43):

(43) Colloquial and formal equivalents of the rhyme -ဗား-အိုင်

<table>
<thead>
<tr>
<th>Formal Burmese</th>
<th>Colloquial Burmese</th>
<th>pron</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြည်လန်သည် (i)</td>
<td>ဒြာ (or ကြည်လန်သည်)</td>
<td>le</td>
<td>‘also’</td>
</tr>
<tr>
<td>ကြည်အမှန်သည် [ဗိုလ်]</td>
<td>နောင်မန်း ‘name’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These processes help us to understand how the lexeme မိုး မောင် metamorphosed into မောင်. In formal Burmese မိုး မောင် could not have retained its original form because it would obligatorily have been read as [mŋ] rather than with the [i] vowel preferred in high register language. Furthermore, the counterpart of the new marker was already spelt ဗား ဆန်း, so it is not surprising that မိုး မောင် was respelt by analogy as ဗား မန်း and pronounced [mji].

The change of the tone of the original lexeme does not seem to pose a problem. The modern markers ဗား သိ and ဗား မီး function in two tones: when used as sentence-final verb markers they have low tone (44)a, but as the verb markers of attributive relative clauses they acquire creaky tone, as in (44)b.

(44) Induced creaky tone in attributive clause verb markers

a. မိုး အမြန်း he go.REAL
   ဗား သိ အမြန်း ဖြင် he go.REAL_ATTHouse
   ‘He went.’
   ‘The house he went to.’

Since tones were not marked in the Pagan inscriptions, and were marked only rarely in the texts of subsequent periods, it is impossible to detect when the marker ဗား ဆန်း first started to function in different tones. We might speculate that tonal alternations were used from the time the original lexeme ဗား ဆန်း was first grammaticalised as a verb marker. But since the orthographical conventions of the time did not require tones to be marked, a change of tone would not have prevented the new marker ဗား မန်း from assuming a role analogous to that of ဗား ဆန်း.

We can say that the grammatical system for expressing temporal semantics in Burmese had evolved by the beginning of the sixteenth century. There is no textual evidence to suggest that the function of the markers ဗား ဆန်း and ဗား မန်း in the sixteenth century was any different from in the modern formal language. Since the colloquial language was not represented in written form until the first short novels of the twentieth century, it is
impossible to say when the colloquial variants of \( \textbf{sa}n'\) and \( \textbf{ma}n'\) first appeared. However, it is possible to trace how they developed.

Colloquial Burmese has four markers with time-related function: two \textit{realis} markers \( \textbf{t}a\) and two \textit{irrealis} markers \( \textbf{m}a\), forming two pairs with shared phonological and distributional properties. The pair \( \textbf{t}a\) and \( \textbf{m}a\) are sentence-final verb markers and (with induced creaky tone) attributive clause verbal markers; the markers \( \textbf{t}a\) and \( \textbf{m}a\) are used both with predicates of nominalised embedded clauses and as sentence-final verb markers. Clearly, \( \textbf{t}a\) and \( \textbf{m}a\) are products of the vowel hierarchy discussed above: they are the respelled counterparts of the \( \textbf{sa}n'\) and \( \textbf{ma}n'\), pronounced at the time of respelling with the vowel \([\varepsilon]\). Additionally, the \textit{irrealis} markers \( \textbf{t}a\) and \( \textbf{m}a\) were respelt with a different initial from the \( \textbf{sa}n'\). The Old Burmese consonant \( s\) has changed in the modern language to an interdental fricative \([\varepsilon]\), often realised as an affricated dental stop \([\text{ts}]\). Although the new consonant is phonologically opposed to \([t]\), their phonetic similarity doubtless accounts for their occasional merging, such that in texts sometimes we sometimes find \( \textbf{t}a\) as in (45) and (46):

(45) \( \text{rhu} \text{p}u\text{y} \text{to} \text{thak' ci.to mû} \text{lat' t}a\text{n}' \) gold ferry.HON on float.HON EUPH tân'

'[The king] went by golden ferry'

(Archaeological Survey of Burma 1955:21)

(46) \( \text{ca' ai}k\text{á} \text{le pâ nha}i'akva } \text{khi to mû} \text{lat' t}a\text{n}'

'war.strength four.CLF.with.together march.HON EUPH tân'

(Archaeological Survey of Burma 1955:21)

A similar relationship obtains in the modern language between the formal Burmese demonstrative \( \textbf{th}i\) ‘this’ and its colloquial counterpart \( \text{di} \). We can conclude that the marker \( \textbf{t}a\text{y}'\) is indeed derived from the marker \( \textbf{sa}n'\) (47).

(47) \( \text{th}i > \textbf{t}a\text{y}' \)

\( \text{m}j\text{i} > \textbf{m}a\)

It was mentioned above that the markers \( \textbf{t}a\) and \( \textbf{m}a\) evolved as in (48), from the combinations of the tense markers and the subject marker in the colloquial language.

(48) \( \textbf{t}a + \text{hâ} > \textbf{t}a\)

\( \textbf{m}a + \text{hâ} > \textbf{m}a\)

This etymology is stated in various sources, but the mechanism of the process needs explanation. When the tense markers in Burmese are followed by some other marker, for example an interrogative particle, they are used in reduced, or weakened, form, written using the initial consonant of the marker with the rhyme removed, as in (49).
Reduction/weakening of tense marker in colloquial Burmese: ဝင်ကြယ် > ဝင်မမ

a. ဝင်ကြယ် ဝင်မမ
def: go.IRR
he go.IRR
He will go.

b. ဝင်ကြယ် ဝင်မမ
def: go.IRR.Q-?
he go.IRR.Q-
Will he go?

Accordingly, when the marker ဝင်ကြယ် is followed by subject marker ဝင်မ, the combination can become ဝင်မကြယ်. Burmese is a monosyllabic language, and its grammatical markers are typically monosyllabic, so the reduction of ဝင်မကြယ် to ဝင်မ is natural.

The marker ဝင်ကြယ် comes about by a similar process: the realis marker ဝင်ကြယ် combined with ဝင်မ and was written ဝင်မကြယ် and was reduced phonologically to ဝင်မကြယ်. In the modern language the appears in the form ဝင်မကြယ်, pronounced with an unaspirated initial consonant [t]. Significantly, however, following a glottal stop the marker is pronounced with an aspirated initial, as [th], as if written ဝင်မကြယ် (Okell and Allott 2001: 74). In all other cases, following a vowel, the initial ဝင်မ is subject to assimilatory voicing and the marker is pronounced ဝင်မ[da]. Assimilatory voicing in Burmese changes both unaspirated and aspirated voiceless stops into voiced consonants — there are no voiced aspirates in Burmese — and therefore [da] may be the result of both ဝင်မင် and ဝင်မကြယ် under the influence of assimilatory voicing. It is not therefore anomalous to posit that the underlying marker is in fact ဝင်မကြယ် rather than ဝင်မ. While it remains unclear why is conventionally written ဝင်မကြယ်, Okell and Allott (2001:74) note that it is sometimes spelt ဝင်မကြယ်.

Now some final remarks concerning tense marking in Burmese. The salient characteristic of the tense markers is that they are bi-functional. On the one hand, they may nominalise the clause to whose verb they are attached, causing that clause to function as an NP, such that nominal markers may follow the tense markers. On the other hand, the markers have obvious temporal semantics: ဝင်မင် and ဝင်မကြယ် are opposed not in their nominalising function — in which they are alike — but in their contrasting temporal semantics.

While the origin of the marker ဝင်မကြယ် is not certain, the provenance of ဝင်မင် is as clearer. ဝင်မင် was originally an ordinary NP with no temporal semantic implications. It subsequently grammaticalised into a tense marker while retaining its nominalising function. In light of this, we might expect the nominalising function of the tense markers to fade and their tense-marking properties to assume prominence. In fact, Burmese seems to demonstrate the opposite tendency: the nominalising function is preserved.

It was mentioned that the formal Burmese markers ဝင်မင် and ဝင်မကြယ် have both nominalising and tense-marking functions, while the colloquial markers which developed from them have distributed functions: markers ဝင်မင် and ဝင်မမ cannot be used with embedded sentences, but can appear in attributive clauses with induced creaky tone, while ဝင်မင် and ဝင်မမ are not used in attributive clauses. This distribution may be accounted for as follows: ဝင်မင် and ဝင်မမ certainly originated earlier than ဝင်မင် and ဝင်မမ, being merely colloquial respellings of the formal Burmese markers ဝင်မင် and ဝင်မကြယ်. The association of the colloquial markers with their formal counterparts has loosened, as their written forms — especially that of ဝင်မင်, where even the initial consonant differs from its literary counterpart—showed their divergence from their origins, and they would probably
have been destined to become pure tense markers with no nominalising function. It was at this stage that the noun ṭa ‘thing’ (or subject marker ṭa ḡā) was added to the markers reinforcing their nominalising function. Judging from the description of the function of ṭa and ṣa in Okell and Allott (2001:74–75, 171–2), the nominalising functions of these two markers are more prominent than their other functions.

Lastly, it remains to be emphasised that the root of the ambiguity of the Burmese tense markers lies in interference from Pali. We remember that nominalised finite verbs were introduced into the language to represent Pali participles, and the authority and desirability of the Pali style remains current even today. The influence of Pali may have hampered the narrowing of the tense markers’ function to purely temporal markers.
13 The structure of Pagan period Burmese

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1 Introduction

The earliest attested forms of the Burmese language are the inscriptions of the Pagan period. The Pagan dynasty is thought to have been founded by King Anawrahta in 1044 CE, though the Burmese chronicles such as the U Kala Chronicle and the Glass Palace Chronicle mention that Anawratha was the forty-second king of the Pagan dynasty. No reliable source is available however to ascertain who the forty-one kings prior to Anawratha were. King Anawratha’s name — in the form Aniruddha — is the earliest name found in contemporary records like votive tablets of Pagan period.

The Burmese inscriptions were collected together by King Bodawpaya in the second half of the eighteenth century for the purpose of the settlement of his revenue. The successive kings of Burma depended mainly upon land revenue as their source of wealth. However, for a thousand years, from the Pagan period until the Konbaung period, land in Burma had been divided into two categories, ecclesiastical and secular. The former category comprised lands which had been donated by successive kings and their families, nobles and wealthy people as testimony to their faith in Buddhism, and belonged to Buddhist temples, forming part of their assets. Such land was exempt from royal taxation, and was scattered here and there throughout the country. It was necessary for the later kings of Burma to try to distinguish the ecclesiastical land from the secular land. King Bodawpaya carried out this difficult task in the later half of the eighteenth century.

Charles Duroiselle, Director of the Archaeological Survey, reported that in total approximately three thousand Burmese inscriptions had been found in Burma. Ninety percent of these are in Burmese, and the rest are in Sanskrit, Pali, Tamil and Mon. Emil Forchhammer, Professor of Pali at Rangoon College, collected inscriptions throughout the country by producing on paper rubbings of as much of the inscriptions as was on stone which was exposed and above ground. Taw Sein Ko, successor to Forchhammer, transliterated them into modern Burmese script and published them as Epigraphia Birmanica in four volumes, three of which are in two parts, including some English translations with notes and comments. Volume one of Epigraphia Birmanica is cited here as Taw Sein Ko and Duroiselle (1919). U Tun Nyein (1899) translated 171 inscriptions.
produced by Forchhammer into English, and published them as Inscriptions of Pagan, Pinya and Ava: translation, with notes. U Pe Maung Tin and Gordon H. Luce (1934–1956) arranged the paper rubbings of the inscriptions in chronological order and published them under the title Inscriptions of Burma, in five portfolio editions containing about six hundred inscriptions. Another series of transliterations of Old Burmese Inscriptions has recently been carried out and published by the Archaeological Department of the Ministry of Culture (Aung Thaw 1972–1983). The five volumes in this series contain 225, 145, 227, 152 and 95 inscriptions, respectively. King Bodawpaya ordered the original inscriptions to be copied onto 719 stones, which are preserved in the precinct of the Mahamuni Pagoda in Mandalay, and still in situ. Paper rubbings of forty-two Inscriptions within the walls of the Mahamuni in Mandalay were published with transliterations into modern Burmese script by the Yangon University History Department (1989).

The present study is concerned with the general structure of Burmese in the Pagan period, rather than with providing an exhaustive account of the language of this period. The focus is on phonology, syntax and morphology, all analysed mainly by deciphering Burmese inscriptions dating from the Pagan period. Except in a very few cases, the material on which the analysis is based is taken from U Pe Maung Tin and Professor Luce’s Inscriptions of Burma (1934–1956).

Abbreviations (abbreviations referring to grammatical forms are listed at the end of the paper):

- **OB** Old Burmese, Pagan period Burmese
- **WB** Written Burmese, modern Burmese spelling
- **trsl** transliteration
- **pron** pronunciation in modern Burmese

NB Examples from Pe Maung Tin and Luce (1934–1956) are cited as Inscr., followed by Portfolio number in Roman numerals I- II-... and inscription plate number Arabic numerals 1,2....

Inscription sources (also included in main bibliography)


Forchhammer, Emil, and Taw Sein Ko, 1897, The Inscriptions copied from the stones collected by King Bodawpaya and placed near the Arakan Pagoda, Mandalay. 2 vols.

2 Phonology

It is impossible to know exactly what Pagan period Burmese sounded like, because no phonetic material is available. It is, however, possible to reconstruct the phonology of the Burmese on the basis of the orthography found in the inscriptions and loan words from Pali and Sanskrit. It is important to point out at this stage that spelling in the inscriptions was highly variable. This will become immediately obvious from looking at the examples in this paper. Accommodating alternative spellings forms an important part of task of deciphering inscriptions.

Pali and Sanskrit loans

Burmese inscriptions of the Pagan period contain large numbers of loan words, almost all from Pali and Sanskrit. Some examples are given in (1).

(1) OB Loans from Pali and Sanskrit

<table>
<thead>
<tr>
<th>OB</th>
<th>translit.</th>
<th>Pali</th>
<th>translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>kāma</td>
<td>kāma</td>
<td>karma</td>
<td></td>
</tr>
<tr>
<td>gotama</td>
<td>gotama</td>
<td>Gotama</td>
<td></td>
</tr>
<tr>
<td>cakkavāla</td>
<td>cakkavāla</td>
<td>universe</td>
<td></td>
</tr>
<tr>
<td>catumahāraj'</td>
<td>catumahārajika</td>
<td>Catumahārajika</td>
<td></td>
</tr>
<tr>
<td>jambudip'</td>
<td>jambudip'</td>
<td>Jambudipa</td>
<td></td>
</tr>
<tr>
<td>ṭhapanā</td>
<td>ṭhapanā</td>
<td>enshrinining</td>
<td>Tavatimsa</td>
</tr>
<tr>
<td>tāvatirisā</td>
<td>tāvatirisā</td>
<td>animal</td>
<td>Tusita</td>
</tr>
<tr>
<td>tussitā</td>
<td>tussitā</td>
<td>Tusita</td>
<td></td>
</tr>
<tr>
<td>devadat'</td>
<td>devadatta</td>
<td>Devadatta</td>
<td></td>
</tr>
<tr>
<td>nama</td>
<td>nama, nama</td>
<td>homage, veneration</td>
<td>mythical serpent demon</td>
</tr>
<tr>
<td>nāga</td>
<td>nāga</td>
<td>nirvana</td>
<td></td>
</tr>
<tr>
<td>nibban'</td>
<td>Pāli nibbāna</td>
<td>nirvana</td>
<td></td>
</tr>
<tr>
<td>niyārapan'</td>
<td>Skt nirvāṇa</td>
<td>nirvana</td>
<td></td>
</tr>
</tbody>
</table>
Consonants

The Pali and Sanskrit loans in Burmese are generally very close in form to the original Pali or Sanskrit words. The next step is to reconstruct from this evidence the values of the consonants in the orthography of the inscriptions (ο = k, ο = m, ο = c, ο = t, ο = h, ο = r, ο = v etc) to produce a table of Pagan period Burmese initial consonants and their values for writing Pali and Sanskrit words as in (2).
The structure of Pagan period Burmese

(2) Initial consonants

\[ \begin{align*}
\infty k & \infty kh & \infty g & \infty gh & \infty c & \infty n \\
\infty c & \infty ch & \infty j & \infty jh & \infty n \\
\infty t & \infty th & \infty d & \infty dh & \infty n \\
\infty p & \infty ph & \infty b & \infty bh & \infty m \\
\infty y & \infty r & \infty l & \infty v & \infty s \\
\infty h & \infty \ell
\end{align*} \]

It is safe to assume that the Burmese of the Pagan period contained contrasting pairs of voiceless aspirated and unaspirated velar, dental and labial stops, and palatal affricates, as in (3).

(3) \( OB \) trsl gloss \( WB \) trsl pron

\[ \begin{align*}
\text{နေ့်} & \text{ kuiv'} & \text{self} & \text{နေ့်} & \text{ kuiv'} & \text{kò} \\
\text{နေ့်} & \text{ khain'} & \text{spread} & \text{နေ့်} & \text{ khain"} & \text{kʰìn} \\
\infty & \text{ cá} & \text{eat} & \infty & \text{ cá"} & \text{sá} \\
\infty & \text{ chu} & \text{reward} & \infty & \text{ chu} & \text{šʰú} \\
\infty & \text{ ton'} & \text{request} & \infty & \text{ ton"} & \text{táun} \\
\infty & \text{ thoin'} & \text{thousand} & \infty & \text{ thoin"} & \text{thʰun} \\
\infty & \text{ pay'} & \text{bean} & \infty & \text{ pai} & \text{pé} \\
\text{ငြိမ်} & \text{ phathuy'} & \text{uncle} & \text{ငြိမ်} & \text{ bhathve"} & \text{bédwé}
\end{align*} \]

Judging from the loan words derived from Pali and Sanskrit, there was also a contrast between voiced and voiceless velar, dental and labial stops and palatal affricates, as in (4).

(4) \( OB \) trsl gloss

\[ \begin{align*}
\text{နေ့်} & \text{ káma} & \text{sensual desire} \\
\text{နေ့်} & \text{ gotama} & \text{Gotama} \\
\text{နေ့်} & \text{ cakravalā} & \text{Cakravala} \\
\text{နေ့်} & \text{ jambudip'} & \text{Jambudīpa} \\
\text{နေ့်} & \text{ tāvatīnsā} & \text{Tāvatīmsa} \\
\text{နေ့်} & \text{ dāyakā} & \text{supporter} \\
\text{နေ့်} & \text{ pāramī} & \text{principal virtues} \\
\text{နေ့်} & \text{ buddhā} & \text{Buddha}
\end{align*} \]

It is uncertain however whether there was any distinction between voiced aspirated and voiced unaspirated stops: (\( \infty \text{o} \infty \text{o} \infty \text{o} \text{g-gh j-jh d-dh b-bh} \)). The five letters \( \text{နေ့်} \text{t th dh n} \) were used to represent the ‘cerebral’ or ‘retroflex’ sounds of Pali and Sanskrit. There seems, however, to have been no distinction between cerebral and dental sounds in the Burmese of the Pagan period, since the same word may be found written using counterpart letters from both series, as in (5).
Consonant clusters

In Pagan period Burmese, a syllable or word could combine with any vowel, any single consonant, or with a certain number of consonant clusters. The permitted consonant clusters can be divided into four groups. The first comprises velars or labials followed by liquids written in their subscript forms: ง (−r-) and ง (−l-). Some examples are given in (4).

The second group comprises velars or labial consonants followed by the semivowel แ, the subscript form of the initial consonant letter แ, as seen in the examples in (246).

Velar/labial + liquid clusters in Pagan Burmese correspond sometimes to velar/labial + semivowel cluster spellings in the modern language as in (246). Note that velar + semivowel cluster spellings are not pronounced as such in the modern language.
The third group comprises any initial consonant, with the exception of the consonant o v, combined with semivowel o -v-, as shown in the examples in (9).

(9) OB trsl gloss WB trsl pron

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>klvaññ'</td>
<td>feed</td>
<td></td>
<td>kyve&quot;</td>
<td>têwê</td>
<td></td>
</tr>
<tr>
<td>thvak'</td>
<td>go out</td>
<td></td>
<td>thvak'</td>
<td>t'hwe?</td>
<td></td>
</tr>
<tr>
<td>nva&quot;</td>
<td>cow</td>
<td></td>
<td>nva&quot;</td>
<td>nwá</td>
<td></td>
</tr>
<tr>
<td>pvañ'</td>
<td>attain Buddhahood</td>
<td></td>
<td>pvañ'</td>
<td>pwîn</td>
<td></td>
</tr>
<tr>
<td>lvat'</td>
<td>be free</td>
<td></td>
<td>lvat'</td>
<td>lu?</td>
<td></td>
</tr>
</tbody>
</table>

In the fourth and last group, clusters consist of nasals or liquids + o h, the subscript o hathô of modern Burmese. Examples are shown in (10).

(10) OB trsl gloss WB trsl pron

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>nhak'</td>
<td>bird</td>
<td></td>
<td>nhak'</td>
<td>ñe?</td>
<td></td>
</tr>
<tr>
<td>nhui&quot;</td>
<td>awaken</td>
<td></td>
<td>nhui&quot;</td>
<td>ñô</td>
<td></td>
</tr>
<tr>
<td>nhac'</td>
<td>year</td>
<td></td>
<td>nhac'</td>
<td>ñî?</td>
<td></td>
</tr>
<tr>
<td>mhat'</td>
<td>mark</td>
<td></td>
<td>mhat'</td>
<td>ma?</td>
<td></td>
</tr>
<tr>
<td>rhây'</td>
<td>front</td>
<td></td>
<td>rhây'</td>
<td>je</td>
<td></td>
</tr>
<tr>
<td>rhve</td>
<td>gold</td>
<td></td>
<td>rhve</td>
<td>ñwê</td>
<td></td>
</tr>
<tr>
<td>lhûë</td>
<td>donate</td>
<td></td>
<td>lhûë</td>
<td>ñu</td>
<td></td>
</tr>
<tr>
<td>lhyok'</td>
<td>address</td>
<td></td>
<td>lhyok'</td>
<td>ñau?</td>
<td></td>
</tr>
</tbody>
</table>

**Vowels**

The vowels of Pagan Burmese were represented by the letters and symbols shown in (11).

(11) a ~ a a ~ a" 
i ~ i i ~ i" 
u ~ u u ~ u"
e ~ e e 
£ ~ ä ay" 
ô ~ o o" 
ô ~ ë ui ~ uiv"
The spelling -iy' seems to have been a diphthong, pronounced differently from -ay' and -uy'. Words spelt with -ay' and -uy' in the Pagan period are all pronounced with the vowel -e in modern Burmese, while Old Burmese words in -uy' have become -we in the modern language as in (13).

The method of writing the contrasting pairs of long and short vowels in Pali and Sanskrit seem to have been used to write a tonal contrast in Burmese. In Burmese, the symbols denoting Pali long vowels (-i, u, i) seem to have denoted low tone, as in the words in (14).

The spelling ຀的同学 was probably pronounced /o/. This is suggested by its appearance in Pali loans containing the vowel o such as คำคำ gotama ‘Gotama’ and anusom tandā ‘rejoicing together’. It may, however, have been pronounced as a diphthong /au/ since words containing the vowel ຀-o/ in modern Burmese were in almost all cases derived from spellings in -aav' in Pagan period Burmese, like the words in (15).

The spelling ຀的同学 o was probably pronounced /o/. This is suggested by its appearance in Pali loans containing the vowel o such as คำคำ gotama ‘Gotama’ and anusom tandā ‘rejoicing together’. It may, however, have been pronounced as a diphthong /au/ since words containing the vowel ຀-o/ in modern Burmese were in almost all cases derived from spellings in -aav' in Pagan period Burmese, like the words in (15).
Similarly the sound spelled with the symbols -ş -şaye may have been pronounced as a diphthong /ai/, as in the words in (16).

(16) OB words in -ş-şaye

<table>
<thead>
<tr>
<th>OB &gt; WB</th>
<th>transl</th>
<th>gloss</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>kes</td>
<td>khay' &gt; khai</td>
<td>hard</td>
<td>kʰê</td>
</tr>
<tr>
<td>nişay' &gt; niay'</td>
<td>small</td>
<td>ɾê</td>
<td></td>
</tr>
<tr>
<td>lây &gt; lay'</td>
<td>paddy field</td>
<td>lê</td>
<td></td>
</tr>
</tbody>
</table>

The reflexes of Pagan period Burmese words written with -şşaye are pronounced in Modern Burmese as low tone /ê/ in the modern language (as ṣṣay' > ṣṣay' in (15) above), while those with short -ş-şaye have high tone reflexes spelt with -ai, pronounced /ê/ in modern Burmese (as ṣṣkhay' > ṣ khai in (16) above).

The combination -şšuy' is thought to have been another diphthong /ui/, as in the words in (17).

(17) OB words in -şšuy'

<table>
<thead>
<tr>
<th>OB &gt; WB</th>
<th>transl</th>
<th>gloss</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>kes</td>
<td>khuy' &gt; khvai</td>
<td>dog</td>
<td>kʰwê</td>
</tr>
<tr>
<td>khruy' ma &gt; khyve'ma</td>
<td>daughter-in-law</td>
<td>tʰwêma</td>
<td></td>
</tr>
<tr>
<td>muy' &gt; mve'</td>
<td>rear, bear</td>
<td>mwê</td>
<td></td>
</tr>
<tr>
<td>mruy' &gt; myve</td>
<td>snake</td>
<td>mwê</td>
<td></td>
</tr>
</tbody>
</table>

Our attention now turns to the combination  şeh ui, pronounced /o/ in modern Burmese. Taken separately,  şeh represents an /i/ sound front vowel and -ui a back vowel /u/, but what other sounds can these two symbols in combination have represented? The evidence is ambiguous. They appeared in variant forms, namely  şeh-te', şeh-ei' and š şeh-üei', as in the words in (18).

(18) OB words in -ş-şaye

<table>
<thead>
<tr>
<th>OB &gt; WB</th>
<th>transl</th>
<th>gloss</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>kes</td>
<td>kei' &gt; akui</td>
<td>to</td>
<td>kò</td>
</tr>
<tr>
<td>set' &gt; sui'</td>
<td>like</td>
<td>t̬o</td>
<td></td>
</tr>
<tr>
<td>ati' ~ atei' &gt; atui'</td>
<td>they</td>
<td>?atô</td>
<td></td>
</tr>
<tr>
<td>apei' &gt; aphui'</td>
<td>for</td>
<td>?apʰô</td>
<td></td>
</tr>
<tr>
<td>ec'keiv' &gt; ec'kui</td>
<td>older brother</td>
<td>?akò</td>
<td></td>
</tr>
</tbody>
</table>

This may suggest that şehui was a vowel in Pagan period Burmese which had no close equivalent in the Indian languages to which the script's fundamental design was more suited. It is worth noting that towards the end of the Pagan period, this vowel was systematically written with a final consonant -ş -ş attached, as in (18). One possibility is that şehui was pronounced as a diphthong /ou/, as in (19).
### Tones

Burmese of the Pagan period is thought to have been tonal, as is modern Burmese. Tones are sometimes represented during the earlier stage of the Pagan period by the addition of particular symbols: -\( -\delta \) -\( \epsilon \) corresponds to modern Burmese creaky tone. -\( -\delta \) -\( \nu \) and -\( -\delta \) -\( h \) correspond frequently, but not consistently, to low and high tones, respectively, as in the examples in (20). The symbol -\( -\delta \) -\( \epsilon \) often appears in subscript form under the letter which precedes it, instead of appearing to the right of the final consonant letter.

#### Table 20: Tones

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>gloss</th>
<th>WB</th>
<th>transl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>-( -\delta ) -( \epsilon )</td>
<td>sa( ^e )</td>
<td>'begin'</td>
<td>0</td>
<td>sa</td>
<td>ם</td>
</tr>
<tr>
<td></td>
<td>hi( ^e )</td>
<td>'be'</td>
<td>1</td>
<td>fi</td>
<td>ﬁ</td>
</tr>
<tr>
<td></td>
<td>nu( ^e )</td>
<td>'soft, tender'</td>
<td>1</td>
<td>nu</td>
<td>ﱌ</td>
</tr>
<tr>
<td></td>
<td>plyu( ^e )</td>
<td>'act'</td>
<td>1</td>
<td>pru</td>
<td>प्ज</td>
</tr>
<tr>
<td></td>
<td>apha( ^e )</td>
<td>'father'</td>
<td>1</td>
<td>apha</td>
<td>ﱍप</td>
</tr>
<tr>
<td></td>
<td>ami( ^e )</td>
<td>'mother'</td>
<td>1</td>
<td>ami</td>
<td>ﱍम</td>
</tr>
<tr>
<td></td>
<td>mai( ^e )</td>
<td>'deficient'</td>
<td>1</td>
<td>mai</td>
<td>ﱍम</td>
</tr>
<tr>
<td></td>
<td>khra( ^i s )( ^e )</td>
<td>'lion'</td>
<td>1</td>
<td>khra( ^e )</td>
<td>ﱍकर</td>
</tr>
<tr>
<td></td>
<td>chi( ^e )tou( ^i )</td>
<td>'pray'</td>
<td>0</td>
<td>chuton( ^i )</td>
<td>ﱍचुतोण</td>
</tr>
<tr>
<td>-( -\delta ) -( \nu )</td>
<td>thuiv( ^e )</td>
<td>'that'</td>
<td>0</td>
<td>thui</td>
<td>ﱍढो</td>
</tr>
<tr>
<td></td>
<td>khav( ^e )</td>
<td>'call'</td>
<td>1</td>
<td>kha</td>
<td>ﱍखो</td>
</tr>
<tr>
<td></td>
<td>luiv( ^e )</td>
<td>'desire'</td>
<td>0</td>
<td>lui</td>
<td>ﱍलो</td>
</tr>
<tr>
<td>-( -\delta ) -( h )</td>
<td>puthuiv( ^e )</td>
<td>'hollow stupa'</td>
<td>0</td>
<td>puthui( ^i )</td>
<td>ﱍपुठी</td>
</tr>
<tr>
<td></td>
<td>samih( ^e )</td>
<td>'daughter'</td>
<td>0</td>
<td>sami( ^i )</td>
<td>ﱍसमी</td>
</tr>
<tr>
<td></td>
<td>sah( ^e )</td>
<td>'son'</td>
<td>0</td>
<td>sā( ^i )</td>
<td>ﱍसां</td>
</tr>
<tr>
<td></td>
<td>miyah( ^e )</td>
<td>'wife'</td>
<td>0</td>
<td>mayā( ^i )</td>
<td>ﱍमाज</td>
</tr>
<tr>
<td></td>
<td>nvah( ^e )</td>
<td>'bull'</td>
<td>0</td>
<td>nvā( ^i )</td>
<td>ﱍनवां</td>
</tr>
<tr>
<td></td>
<td>ih( ^e )</td>
<td>'this'</td>
<td>0</td>
<td>i( ^i )</td>
<td>ﱍि</td>
</tr>
</tbody>
</table>

Modern low tone words often appear in Pagan period Burmese with long vowels in open syllables and short vowels in closed syllables, as in the words in (21), though by no means consistently, as the exceptions in (15) and (19) show.
The structure of Pagan period Burmese

(21) OB low tone words

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>꧁</td>
<td>kū</td>
<td>‘cave shrine’</td>
<td>ႀ</td>
<td>gū</td>
<td>gū</td>
</tr>
<tr>
<td>꧂</td>
<td>nā</td>
<td>‘I’</td>
<td>꧂</td>
<td>nā</td>
<td>ṇā</td>
</tr>
<tr>
<td>꧃</td>
<td>nī</td>
<td>‘younger brother’</td>
<td>꧃</td>
<td>nī</td>
<td>ṇī</td>
</tr>
<tr>
<td>꧄</td>
<td>cuṁ</td>
<td>‘full’</td>
<td>꧄</td>
<td>cuṁ</td>
<td>sōun</td>
</tr>
<tr>
<td>꧅</td>
<td>ton’</td>
<td>‘mountain’</td>
<td>꧅</td>
<td>ton’</td>
<td>tāun</td>
</tr>
<tr>
<td>꧆</td>
<td>nā</td>
<td>‘ill’</td>
<td>꧆</td>
<td>nā</td>
<td>nā</td>
</tr>
<tr>
<td>꧇</td>
<td>siy’</td>
<td>‘die’</td>
<td>꧇</td>
<td>se</td>
<td>ṇè</td>
</tr>
<tr>
<td>꧈</td>
<td>lāy’</td>
<td>‘paddy field’</td>
<td>꧈</td>
<td>lāy’</td>
<td>ṇè</td>
</tr>
</tbody>
</table>

The practice of representing creaky tone with -cdb- written either to the right of or underneath the final consonant disappeared during the latter half of the Pagan period, as is seen from the spellings in (22).

(22) Early Pagan period -cdb-α’ spelt without -cdb-α’ in the late Pagan period.

<table>
<thead>
<tr>
<th>early OB</th>
<th>trsl</th>
<th>gloss</th>
<th>later OB</th>
<th>trsl</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>꧁āṁ</td>
<td>amī’</td>
<td>‘mother’</td>
<td>꧂</td>
<td>ṇāmi</td>
<td>‘my mother’</td>
</tr>
<tr>
<td>꧁āpha</td>
<td>apha’</td>
<td>‘father’</td>
<td>꧂</td>
<td>ṇāpha</td>
<td>‘my father’</td>
</tr>
<tr>
<td>꧁să’</td>
<td>sa’</td>
<td>‘begin’</td>
<td>꧁</td>
<td>ṇa</td>
<td>‘get’</td>
</tr>
<tr>
<td>꧀chut’</td>
<td>ton’</td>
<td>‘pray’</td>
<td>꧀</td>
<td>la</td>
<td>‘moon’</td>
</tr>
</tbody>
</table>

It seems that the final consonant -cdb-h’ had a function similar to the visarga -cdb-” in modern Burmese (eg OB ꧁cdb krīh’ > WB ꧁cdb: krī” ‘big’; OB ꧁cdb nva’h’ > WB ꧁cdb: nva” ‘bull’). However, words in high tone were not systematically discriminated from low tone words, particularly in the latter half of the Pagan period, as illustrated in (23).

(23) Tone ambiguity in late Pagan period words

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>&gt; 1. WB low tone</th>
<th>&gt; 2. WB high tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>꧁</td>
<td>nā</td>
<td>꧁ nā ‘I’</td>
<td>꧁: nā” ‘fish’</td>
</tr>
<tr>
<td>꧄</td>
<td>cā</td>
<td>꧄ cā ‘writing’</td>
<td>꧄: cā” ‘eat’</td>
</tr>
<tr>
<td>꧇</td>
<td>nā</td>
<td>꧇ nā ‘ill’</td>
<td>꧇: nā” ‘ear’</td>
</tr>
<tr>
<td>꧀</td>
<td>(cdb)roṁ</td>
<td>꧀ (cdb) roṁ ‘colour’</td>
<td>꧀ (cdb): (cdb)roṁ” ‘sell’</td>
</tr>
<tr>
<td>꧀</td>
<td>le</td>
<td>꧀ le ‘wind’</td>
<td>꧀: le” ‘four’</td>
</tr>
</tbody>
</table>

Syllable-final consonants

In Pagan period Burmese, a closed syllable rhyme could consist of various combinations of vowels with a final velar, palatal, dental or labial consonant, which was marked with the symbol ꧁cdb asat’. All the combinations observed in Pagan period Burmese are found in modern Burmese, in addition to several more besides, as in (24); cells in the table without asterisks indicate combinations which did not appear in Pagan period Burmese.
Permitted closed syllable rhymes in Pagan period Burmese

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>-a</th>
<th>-i</th>
<th>-u</th>
<th>-e</th>
<th>-o</th>
<th>-ui</th>
<th>-v</th>
</tr>
</thead>
<tbody>
<tr>
<td>ꞌk</td>
<td>k'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌn</td>
<td>n'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌe</td>
<td>e'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌń</td>
<td>ń'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>ń'</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌt</td>
<td>t'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌn</td>
<td>n'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ṇp</td>
<td>p'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌm</td>
<td>m'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ꞌv</td>
<td>v'</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Examples of words with closed syllable rhymes in Pagan period Burmese are given in (25).

(25)

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>gloss</th>
<th>WB</th>
<th>transl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>ꞌk</td>
<td>nhak'</td>
<td>'bird'</td>
<td>ꞌk</td>
<td>nhak'</td>
<td>ṇe?</td>
</tr>
<tr>
<td>ꞌs</td>
<td>sok'</td>
<td>'drink'</td>
<td>ꞌs</td>
<td>sok'</td>
<td>ṇau?</td>
</tr>
<tr>
<td>ꞌy</td>
<td>yok'</td>
<td>CLF for people</td>
<td>ꞌy</td>
<td>yok'</td>
<td>jau?</td>
</tr>
<tr>
<td>ꞌn</td>
<td>nhuk'</td>
<td>'in'</td>
<td>ꞌn</td>
<td>nhuk'</td>
<td>nai?</td>
</tr>
<tr>
<td>ꞌt</td>
<td>thvak'</td>
<td>'go out'</td>
<td>ꞌt</td>
<td>thvak'</td>
<td>t'bwe?</td>
</tr>
<tr>
<td>ꞌl</td>
<td>lān'</td>
<td>'husband'</td>
<td>ꞌl</td>
<td>lān'</td>
<td>līn</td>
</tr>
<tr>
<td>ꞌn</td>
<td>nōn'</td>
<td>'banyan'</td>
<td>ꞌn</td>
<td>nōn'</td>
<td>naun</td>
</tr>
<tr>
<td>ꞌt</td>
<td>tan'twān'</td>
<td>'brick wall'</td>
<td>ꞌt</td>
<td>tan'twān'</td>
<td>t'àndāin</td>
</tr>
<tr>
<td>ꞌt</td>
<td>tvan'</td>
<td>'inside'</td>
<td>ꞌt</td>
<td>tvan'</td>
<td>twīn</td>
</tr>
<tr>
<td>ꞌc</td>
<td>tae'</td>
<td>'one'</td>
<td>ꞌc</td>
<td>tae'</td>
<td>tī?</td>
</tr>
<tr>
<td>ꞌh</td>
<td>nhac'</td>
<td>'two';</td>
<td>ꞌh</td>
<td>nhac'</td>
<td>ni?</td>
</tr>
<tr>
<td>ꞌh</td>
<td>yhac'</td>
<td>'eight'</td>
<td>ꞌh</td>
<td>yhac'</td>
<td>ji?</td>
</tr>
<tr>
<td>ꞌr</td>
<td>rān'</td>
<td>'liquid'</td>
<td>ꞌr</td>
<td>rān'</td>
<td>jè</td>
</tr>
<tr>
<td>ꞌr</td>
<td>hrān'</td>
<td>'long'</td>
<td>ꞌr</td>
<td>hrān'</td>
<td>jē</td>
</tr>
<tr>
<td>ꞌs</td>
<td>sat'</td>
<td>'kill'</td>
<td>ꞌs</td>
<td>sat'</td>
<td>ō?</td>
</tr>
<tr>
<td>ꞌs</td>
<td>sapit'</td>
<td>'almsbowl'</td>
<td>ꞌs</td>
<td>sapit'</td>
<td>ṇabei?</td>
</tr>
<tr>
<td>ꞌs</td>
<td>lasut'</td>
<td>'waning moon'</td>
<td>ꞌs</td>
<td>lasut'</td>
<td>lazou?</td>
</tr>
<tr>
<td>ꞌs</td>
<td>ĭav'</td>
<td>'be free'</td>
<td>ꞌs</td>
<td>ĭav'</td>
<td>lu?</td>
</tr>
<tr>
<td>ꞌn</td>
<td>kan'</td>
<td>'tank'</td>
<td>ꞌn</td>
<td>kan'</td>
<td>kān</td>
</tr>
<tr>
<td>ꞌm</td>
<td>mīn'</td>
<td>'decree';</td>
<td>ꞌm</td>
<td>mīn'</td>
<td>mein</td>
</tr>
<tr>
<td>ꞌp</td>
<td>phun'</td>
<td>'glory'</td>
<td>ꞌp</td>
<td>phun'</td>
<td>pʰon</td>
</tr>
<tr>
<td>ꞌk</td>
<td>khañ'</td>
<td>'all'</td>
<td>ꞌk</td>
<td>khañ'</td>
<td>kʰa?dēin</td>
</tr>
<tr>
<td>ꞌp</td>
<td>mvañ'sip'</td>
<td>'hungry'</td>
<td>ꞌp</td>
<td>mvañ'sip'</td>
<td>mu?dei?</td>
</tr>
<tr>
<td>ꞌl</td>
<td>lup'</td>
<td>'do'</td>
<td>ꞌl</td>
<td>lup'</td>
<td>lou?</td>
</tr>
<tr>
<td>ꞌk</td>
<td>kharin</td>
<td>'receive'</td>
<td>ꞌk</td>
<td>kharin</td>
<td>kʰān</td>
</tr>
<tr>
<td>ꞌm</td>
<td>t'm</td>
<td>'house'</td>
<td>ꞌm</td>
<td>t'm</td>
<td>tʰin</td>
</tr>
<tr>
<td>ꞌs</td>
<td>sum'</td>
<td>'three'</td>
<td>ꞌs</td>
<td>sum'</td>
<td>sʰun</td>
</tr>
<tr>
<td>ꞌm</td>
<td>mvañ</td>
<td>'feed'</td>
<td>ꞌm</td>
<td>mvañ</td>
<td>mwe</td>
</tr>
<tr>
<td>ꞌl</td>
<td>l'īv</td>
<td>'four'</td>
<td>ꞌl</td>
<td>l'īv</td>
<td>lē</td>
</tr>
<tr>
<td>ꞌm</td>
<td>mvañ</td>
<td>'feed'</td>
<td>ꞌm</td>
<td>mvañ</td>
<td>mwe</td>
</tr>
</tbody>
</table>
Attention is drawn to the combinations of vowel ə - e with final consonants, which do not appear in modern Burmese. These spellings appear to have been variants of other combinations, as in (26):

(26) Variant forms with ə - ə - e - ə

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>ənət ~ ənət</td>
<td>nhec' ~ nhac'</td>
<td>'two'</td>
<td>ənə</td>
<td>nhac'</td>
<td>ni?</td>
</tr>
<tr>
<td>əmən ~ əmən</td>
<td>mlek' ~ myak'</td>
<td>'eye'</td>
<td>əmə</td>
<td>myak'</td>
<td>mi?</td>
</tr>
<tr>
<td>ənəh ~ ənəh</td>
<td>lheï' ~ lhyan'</td>
<td>EMPHATIC</td>
<td>ənə</td>
<td>lhyan'</td>
<td>tajín</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>leïn' ~ lann'</td>
<td>'also'</td>
<td>ənə</td>
<td>lann'</td>
<td>lê</td>
</tr>
<tr>
<td>ənən ~ ənən ~ ənən</td>
<td>het' ~ rhec' ~ rhac'</td>
<td>'eight'</td>
<td>ənə</td>
<td>rhac'</td>
<td>ji?</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>ec' ~ ac'</td>
<td>'older brother'</td>
<td>ənə</td>
<td>ac'kui</td>
<td>?akò</td>
</tr>
</tbody>
</table>

The combinations ənən -ot' and ənən -on' were variants of ənən -vat' and ənən -van', respectively, as in (27):

(27) Variation of ənən -ot' ~ ənən -vat' and ənən -on' ~ ənən -van'

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>ənən ~ ənən</td>
<td>kyon' ~ kyvan'</td>
<td>'slave'</td>
<td>ənə</td>
<td>kyvan'</td>
<td>teûn</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>lhot' ~ lvat'</td>
<td>'release'</td>
<td>ənə</td>
<td>lvat'</td>
<td>tu?</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>son' ~ svan'</td>
<td>'pour out'</td>
<td>ənə</td>
<td>svan'</td>
<td>òûn</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>athot' ~ athvat'</td>
<td>'pinnacle'</td>
<td>ənə</td>
<td>athvat'</td>
<td>?athu?</td>
</tr>
</tbody>
</table>

Lastly, in some rhymes, ə ~ u and ənən -ən were interchangeable during the earlier part of the Pagan period, as in (28):

(28) Variation of ə ~ u ~ ənən

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>ənən ~ ənən</td>
<td>plö' ~ plu'</td>
<td>'make'</td>
<td>ənə</td>
<td>pru</td>
<td>plû</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>roh' ~ rvâ</td>
<td>'village'</td>
<td>ənə</td>
<td>rvâ</td>
<td>jwà</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>lon' ~ lvan'</td>
<td>'past'</td>
<td>ənə</td>
<td>lvan'</td>
<td>lîn</td>
</tr>
<tr>
<td>ənən ~ ənən</td>
<td>amhö' ~ amhu</td>
<td>'deed'</td>
<td>ənə</td>
<td>amhu</td>
<td>?amû</td>
</tr>
</tbody>
</table>

3 Sentence types and sentence syntax

This section looks at the formation of sentences in Pagan period Burmese. Single sentences were either simple, consisting of a single clause, or complex, consisting of a subordinate clause and a main clause. Four sentence types can be identified: affirmative, negative, imperative and interrogative, each treated separately below.

**Topic–complement sentences**

Sentences with a topic and a complement may be referred to as equational sentences. In such sentences, both the topic and the complement consisted of a noun phrase, as in (29)–
(31). Needless to say, the topic was not obligatorily present in Pagan period Burmese: it was often omitted.

(29) topic complement topic complement
lai.tachay.kä therà.ca.te, 35.pai.kä aryà.ca.te
field.ten.TOP monk.eat.REAL 35.'peh'.TOP holy.eat.REAL
‘Ten peh of fields is to provide for the senior monk, and 35 for the other monks.’ (Inscr. I-383a)

(30) topic complement
iy.'ly.yok'.so.kyvan'.saññ'.kä apha.kyvan'.
this.four.CLF.ATTR.slave.SUBJ.TOP father.slave
‘These four slaves are father’s slaves.’ (Inscr. II-204a)

(31) topic complement
iy.'purh'.kyvan'.phyak'hi.so.sù.ka, nrày'.avaci'y.nàc'.cì'.sù.te.
this.Buddha.slave.destroy.ATTR.person.TOP hell.Avici.sink.CAUS.REAL.EMPH
‘Whoever destroys the Pagoda slave will be drowned in the infernal realm of Avici.’ (Inscr. I-22)

**Sentences with a verbal predicate**

The sentences (32)–(40) consist of noun phrases in combination with a verbal predicate.

(32) topic predicate (subject + verb)
jeyyapvat'.kä asak'.le.kì'.e'
Zeyyaput.TOP age.also.big.REAL
‘Zeyyaput is old.’ (Inscr. I-90)

(33) subject predicate (object + verb)
sakaraj'.572.khu ucinà.màin' nhuy'.toì.tak'.e'
Sakkaraja.572.CLF Uzana.king gold.mountain.ascend.REAL
‘King Uzana ascended the throne in Sakkaraja year 572.’ (Inscr. I-90)

(34) subject predicate
sakaraj'.609.khu aтуi'.sakhir'.maì'.kañkasù pyaì.tàv'.mù.e'
Sakkaraja.609.CLF our.lord.king.Kingathu die.HON.REAL
‘Lord King Kingathu passed away in Sakkaraja year 609.’ (Inscr. II-143)
(35) subject object verb
def=frn=frn=frn=frn
ná.ká niravan'.kui.lhyan' luiv'.sate
I.SUBJ nirvana.OBJ.EMPH want.REAL
'I desire nirvana.' (Inscr. III-232)

(36) topic indirect object
def=frn=frn=frn=frn
iy.ná.lhú.sa.ká purhá.tryá.saighá.rataná.surh.pá.so.á
this.I.donate.REAL.TOP Buddha.Dhamma.Sangha.jewel.three.CLF.ATTR.to

donate.REAL

'My donation was for the three gems: Buddha, Dhamma and Sangha.' (Inscr. II-143)

In (36) the topic iy.ná.lhú.sa.ká is a nominalised verb phrase 'that which I donated.'

(37) subject indirect object verb
def=frn=frn=frn=frn
caní'sú.man' sakhan'.kankasú.kuiv' piy'.táv' mú.so.lay'
Sithu.king lord.Kinggathu.to give.HON.ATTR.paddy

'(The paddy which...) King Sithu granted to Lord Kingathu.' (Inscr. II-143a)

(38) indirect object subject verb
def=frn=frn=frn=frn
sakarac'.531.khu sakhan'.man'khu'.tuin'.kuiv' man'.kri l.su'
Sakaraja.531.CLF lord.Mingondain.to king.big this.way
decree.HON.REAL

'In the year of Sakaraja 531, the King gave orders to Lord Mingondain thus.' (Inscr. II-143a)

(39) topic (indirect object) subject verb
def=frn=frn=frn=frn
atuiv'.kuiv'.ká atuiv'.kuiv'.pha piy'.tuin.e'
me.to.TOP my.father give.again.REAL

'My father gave it to me in turn.' (Inscr. II-174)
(40) *direct object  indirect object  subject  predicate
lay'.nhah".kyvan' ratanâ.sum.pâ.so.kuiv' ná  thù.kha.so
field.and.slave  gems.three.CLF.ATTR.to  I  donate.PAST.REAL
'I dedicated the paddy fields and slaves to the Three Gems.'  (Inscr. II-164)

**Negative sentences**

Verbs were negated by prefixing the negative particle  ꞌ ma, as in sentences (41)–(53).
The sentence-final negative verb particle ꞌ phû  bú of modern colloquial Burmese is found neither in Pagan period Burmese, nor in modern formal Burmese (WB).

(41) ná  sa.le  ma.hi,  ná  muy'sâ.tan'.so.sû.le  ma.hi
I  son.also  NEG.have  I  raise.ought.ATTR.person.also  NEG.have
'I have no son and no one else to raise.'  (Inscr. I-51)

(42) phun'  ma.krî  asak'  marhânn'.ce
glory  NEG.big  life  NEG.long.CAUS
'May glory be not great, may life be not long.'  (Inscr. I-88)

(43) niy'.roî'.la.roî'  ma.mran'.so.phlæ.ciy'.e
sun.light.moon.light  NEG.see.ATTR.be.CAUS.REAL
'May he be visible neither by sun light nor moonlight.'  (Inscr. I-104)

(44) cá ра.khîâ.n'.lhyân'.lhyân'  ma.ca.tat'.so.trîcan'.lhyân'  phlæ.ciy'.sate
eat.get.want.while.EMPH  NEG.eat.able.ATTR.animal.EMPH  be.CAUS.REAL
'May he be an animal that is unable to eat even if he wants to eat.'  (Inscr. IV-389)

(45) ná.kâ  achuy'amyluv'  ma.hî' svârn.te
I.TOP  relatives  NEG.have.capable.REAL
'I am unable to have any family.'  (Inscr. II-112)

(46) cá.sâî'.taîk'.kâ  ma.prîliy'
writing.learn.building.TOP  NEG.finish.yet
'The building for teaching the Scriptures is not finished yet.'  (Inscr. III-271)

(47) ta.yok'.taîn'.lhyân'  ma.ca.phû
one.CLF.only.EMPH  NEG.eat.EXP
'(I) have not eaten alone.'  (Inscr. II-193)
The structure of Pagan period Burmese

(48) ဗိုလ်တိုင်းလေး ဖွဲ့သုံးသည် ဖွဲ့သုံးသည်
uccā. hiy'. hiy'
property. have. SUBJUNCT
ma.pi'y'. luiv'. so
NEG. give. want. ATTR
van'tuiv'. nhac'. lui. le
uncharitable. enjoy. also

cī ဗိုလ်တိုင်းလေး
īā ဗိုလ်တိုင်းလေး
I NEG. be. want
'I do not want to be a man who does not donate and who is stingy, even though he may own much property.' (Inscr. III-249)

(49) ဗိုလ်တိုင်းလေး
amin' ma. hi. ā
order NEG. have. EMPH
'There is no time to waste issuing an order.' (Inscr. I-79b)

(50) ဗိုလ်တိုင်းလေး
miyā ma. hut' khāy' ma. te
wife NEG. true daughter-in-law REAL
'She is not the wife, but the daughter-in-law.' (Aung Thaw 1972-1983, vol. i, p.24)

(51) ဗိုလ်တိုင်းလေး
ma. puin'. khra'. nuin'. so atuin'. ma. si. so kloī
NEG. divide. can. ATTR measure. NEG. know. ATTR monastery
'The monastery beyond measure which could not be divided' (Inscr. III-243)

(52) ဗိုလ်တိုင်းလေး
ratanā. suin. pd. so. mliyā. kā nhā. mluy'. suiv' char. khrañ'ī. ta. tan'. lhyañ
gems. three. CLF. ATTR. earth. TOP my. earth. to hair. strand. i. CLF. EMPH

ma. van'. ciy'.
NEG. enter. CAUS
'Never let the religious land be confused with my own land, even if it be only by the size of a strand of hair.' (Inscr. III-296)

(53) ဗိုလ်တိုင်းလေး
fy'. mhyasa. kyvan'. kā phurhā. tryā. san'. khā. tuiv'. kuiv'. le ma. luū,
this. much. slave. TOP Buddha. Law. Sangha. PL. to. also NEG. donate,

laiń. sā. achuy' amlyuiv'. tuiv'. kuiv'. le ma.pi'y'. so
husband. son. relatives. PL. to. also NEG. give. REAL
'I donate these slaves to none of Buddha, Law or Sangha; nor do I give them to my husband, son or relatives.' (Inscr. II-201a)
Orders and exhortations

Imperative and exhortative sentences in Pagan period Burmese contained either a verb phrase without any sentence-final particle (such as "OJGO: sate" or "OJGO: e"), or a verb phrase with one of the causative or imperative verb markers shown in (54).

(54) OB imperative markers

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
<th>e.g.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ὠ</td>
<td>le-ly'</td>
<td>IMP</td>
<td>Ὠ</td>
<td>le</td>
<td>Ὠ</td>
<td>(260)</td>
</tr>
<tr>
<td>Ὠ-⤽</td>
<td>lo'-law'</td>
<td>IMP</td>
<td>Ὠ-焐</td>
<td>lo'</td>
<td>Ὠ</td>
<td>(261)</td>
</tr>
<tr>
<td>Ὠ</td>
<td>la'n</td>
<td>IMP</td>
<td>Ὠ</td>
<td>la'n</td>
<td>ᴿ</td>
<td>(266)(267)(268)</td>
</tr>
<tr>
<td>Ὠ</td>
<td>ci'y</td>
<td>CAUS</td>
<td>Ὠ</td>
<td>ce</td>
<td>Ὠ</td>
<td>e.g.</td>
</tr>
</tbody>
</table>

Questions

Yes-no questions in Pagan period Burmese used the sentence-final interrogative particle "OJGO: lo", while "OJGO: nhe" was used in WH-questions, with one of the WH-question words set out in (55) and found in the examples following it.

(55) WH-question words

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
<th>e.g.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ὠ</td>
<td>aphpay'</td>
<td>'what/which?'</td>
<td>Ὠ</td>
<td>abhay'</td>
<td>Ὠ</td>
<td>?ab'e</td>
</tr>
<tr>
<td>Ὠ</td>
<td>asuir'</td>
<td>'how?'</td>
<td>Ὠ</td>
<td>asui'</td>
<td>Ὠ</td>
<td>?o'</td>
</tr>
<tr>
<td>Ὠ</td>
<td>ati</td>
<td>'what/where?'</td>
<td>Ὠ</td>
<td>ati</td>
<td>Ὠ</td>
<td>?ati</td>
</tr>
<tr>
<td>Ὠ</td>
<td>aphpay'krun</td>
<td>'why?'</td>
<td>Ὠ</td>
<td>aphpay'krun</td>
<td>Ὠ</td>
<td>?eb'equn</td>
</tr>
</tbody>
</table>

- Ὠ Ὠ Ὠ (Stc-~) → Q?: yes–no question particle [=WB Ὠ Ὠ la" lā]

(56) Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ | min",luik',so | man':lo | decree,just.ATTR | king.order.Q-?

‘Was it the King who issued the order?’ (Inscr. I-78b)

(57) Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ | nhac',nhac':sun',nhac'kru.i.ká | ma',krá,phú,sa,lo. | two.year.three.year.before.TOP | NEG.hear.EXP.REAL.Q-?

‘Have (you) not heard this already in the past two or three years?’ (Inscr. II-168)

(58) Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ Ὠ | can'ñ§ú,man',rèt,sanñt':ká | muiv',tok':sanñt'ká | mi,lo,hu | me,tav'mú.e* | Sithu.king.big.NOM.TOP | sky.shine.NOM.TOP | fire.Q-?,QUOT | ask,HON.REAL

‘King Sithu asked: Is that luminous matter a fire?’ (Forchhammer 1892:145)
The structure of Pagan period Burmese 259

\( \text{puthuiv'.than'.lo} \quad \text{buddhi.than'.lo} \quad \text{miy'. rakā} \)

stupa.toddy palm.Q-?  Buddha.toddy palm.Q-?  ask.since

'Since he asked whether the toddy palm belonged to the stupa or to Buddha...'


- ษ น (Stc~) \( \rightarrow \) Q-WH: WH-question particle \([= \text{WB} \ ရန်း]'န"န]'\)

(60) အောင် ထို့ ပြခြင်းများ

\( \text{asuiv'} \quad \text{niā} \quad \text{khaṅ. vam'. aṁ.nhe.} \)

how I endure.dare.IRR.Q-WH

'How shall I endure (it),'# (Inscr. I-79a)

(61) အောင် မြို့သော်

\( \text{asuiv'} \quad \text{sat'. khaṅ'. nhe.} \)

how kill.NOM.Q-WH

'By what manner of execution?,' (Inscr. II-68)

(62) နောင်နောင် များ အောင် မြို့သော်

\( \text{ma.nhaṅ'. piy'. so} \quad \text{phlac'. khaṅ. mukā} \quad \text{asuiv'=mu. aṁ.nhe.} \)

NEG.prior.give.ATTR be.REAL.iff how.act.IRR.Q-WH

'If (he) fails to return it, what shall (we) do?,' (Inscr. I-79b)

(63) အောင် သို့မဟုတ်

\( \text{aphay'. min'=on'. sa.nhe.} \)

what.decree succeed.REAL.Q-WH

'With what decree did you succeed (in the case)?,' (Inscr. I-78b)

(64) မြို့သော် အောင် မြို့သော် မြို့သော်

\( \text{kyvān'.20.sa.kā} \quad \text{aphay'. maṅ̃. so} \quad \text{kyvān'. nhe.} \)

slave.20.ATTR.TOP what.name.ATTR slave.Q-WH

'What are the names of these twenty slaves?,' (Inscr. I-38b)

(65) ဆိုင်ရာများ အောင် မြို့သော် မြို့သော်

\( \text{khuiv'. ca.so.sū. tuiv'.kā} \quad \text{aphay'. hū} \quad \text{khaṅ. lim'. nhe.} \)

steal.eat.ATTR.person.PL.TOP what.say endure.OPT.Q-WH

'How will those who steal to eat survive?,' (Inscr. II-168)

(66) သို့မဟုတ် အောင် မြို့သော်

\( \text{thuiv'. kyvān'. kā} \quad \text{ati.nhe.} \)

that.slave.TOP where.Q-WH

'Where are the slaves?,' (Inscr. I-51)

(67) အောင် မြို့သော်

\( \text{ati.mha la. sa.nhe.} \)

where.from come.REAL.Q-WH

'Where did (he) come from?,' (Inscr. I-95a)
(68) သင့်နေသောကမ္ဘာများကို သင့်အနေဖြင့်
arap'.3.pä.hū.sa.kā  atī.tūiv".nhe.
region.3.CLF.say.ATTR.TOP where.PL.Q-WH
‘Where are the so-called Three Regions?’ (Inscr. II-143a)

(69) သင့်နေသောကမ္ဘာများကို သင့်အနေဖြင့်
asui'.mū.ruy'  akhā.ḥaññ'.phlac.tat'.arī.nhe.
how.act.SUBORD time.long.be.can.IRR.Q-WH
‘In what way can it last for a long time?’ (Inscr. IV.392)

Exclamations

Exclamations were expressed in Pagan period Burmese with a sentence-final particle ဦးတို့တွင် takā, as in sentences (70)–(73).

(70) သောကမ္ဘာ ယခင်များ ဝေးသောကြည့် မောင်းတယ်
o.ī.mli'.arap'.kā  mlat'.svā.takā.hu  chuiv'.tav'mū.ruy'.
oh!.this.land.region.TOP noble.very.EXCL.QUOT say.HON.SUBORD
‘[The king] uttered: “How glorious this land is!”’ (Inscr. I-79b)

(71) သောကမ္ဘာ ယခင်များ ဝေးသောကြည့် မောင်းတယ်
o.ī.mai'.kri.kā  mimi.prānā.phlan'.chuiv'.so ma.hūt.takā.
oh!.this.king.big.TOP REF.Lknowledge.with say.ATTR NEG.true.EXCL
‘Alas, the king’s speech was not made from his own knowledge!’ (Inscr. II-68)

(72) ဗမာ စာလေးများ စာလေးများ ဝေးသောကြည့် မောင်းတယ်
 nieda'  ty'.sūiv'  ma.ry'.phātukā.hu  min'"".e"".
1.TOP this.way NEG.write.EXPL.EXCL.QUOT decree.REAL
‘(He) said: “I have never written in such a way!”’ (Inscr. I-78b)

(73) အာနိုး အာနိုးနေသောကြည့် မောင်းတယ်
añvan'  ma.chāt.takā.
sprout NEG.pick.EXCL.
‘Do not pick sprouts!’ (Inscr. III-271)

Conditional assumptions

Conditional assumptions contain a subordinate clause followed by a main clause which is an assumed or desired consequence of the subordinate clause. The assumption is expressed using either of the particles အထူး or ပြိုများ mūkā attached to the verb of the subordinate clause.

(74) အာနိုး အာနိုးနေသောကြည့် မောင်းတယ်
akraṇ'.sū.tav'  sā.rahan',pūrṇā.yok'yā. mīt'ma  khīpāt'.ra.arī
that.person.HON being.monk.Brahmin.man.woman exalt.can.IRR
The structure of Pagan period Burmese 261

(75) 

If any people, whether it a monk, Brahmin, man or woman, tend it, may they all receive merit in equal measure to the merit of my donation.

(Inscr. II-126b)

(76) 

If this man destroys (this) despite my warning, may he not be (reincarnated as) a human being eight times.

(Inscr. II-134b)

(77) 

If on the other hand those men and women who live here, observing acts of destruction, should not take action [or: should not cause action to be taken], may they all, my numerous lords, be cast into hell.

(Inscr. I-28a)
Complex sentences

Subordinate clauses Pagan period Burmese sentences made use of one the subordinating conjunctions suffixed to the verb of the subordinate clause, as in the examples in (80)–(95).

- ရု (V~) → SUBORD: subordinate clause marker; V and / V and therefore [=WB ၏ r* jwe]

(80) တန်ဆောင်နေထောင် မိန့် ချည်မှုများ
နောမိဖော်ရာ မိုး ရု က ၏
I.aunt raise.SUBORD grow up.REAL
‘I grew up raised by my aunt.’ (Inscr. II-181)

(81) အမြဲ အဖိုး အင်္ဂါသီးသီး
စီးခီး အမြှုဆောင်းပြီး
blood.clot vomit.SUBORD die.CAUS/IRR.REAL
‘May he vomit clots of blood and die.’ (Inscr. II-144)

(82) အတွက် အမြှုဆောင်းပြီး
နောမိကျွန်ုပ်မှုများ
I.OBJ call.SUBORD king.big this.affair entrust.REAL
‘The King summoned me and entrusted me with this affair.’ (Inscr. III-271)
(83) kaiv‘.miyā sā.nhac‘.yok‘ apoň‘.4.yok‘ puhrā.ihu.ruy‘
REFL.wife son.two.CLF total.4.CLF Buddha.donate.SUBORD
made this inscription after four of us, including my wife and two sons,
made an offering to the Buddha.’ (Inscr. I-6)

(84) asyan‘.man‘.kri‘.le re.caň‘.tav‘ svan‘.ruy‘ anumotanā. khav‘.tav‘ mū.e∗.
noble.king.big.also water.clean.HON pour.SUBORD rejoicing.call.HON.REAL
‘His majesty the King poured the holy water and celebrated his religious deed.’
(Inscr. I-24)

• ṛiś.khā. nihā (V~) → PURP: in order that it will V [=WB ṛiś. nihā ]

(85) ra.khai.svā.so ratanā.sum.pā thā.amsonhā
get.difficult.very.ATTR jewels.three.CLF place.PURPOSE
constructed a splendid brick wall for the purpose of preserving the Three Gems,
which had been obtained with difficulty.’ (Inscr. I-69)

• ṛuiv‘.so.nhā (V~) → PURP: in order that it might V [=WB ṛuiv‘.so.nhā ]

(86) saṅ‘.sara.chauv‘.nray‘.mha thvak‘.mlok‘.luiv‘.sohā kā.purhā plu.e∗.
Samsara.suffering.from leave.release.V PURP cave.Buddha make.REAL
‘(I) constructed a cave-temple so that I will be freed from the cycle of rebirth and
suffering.’ (Inscr. II-138)

• cim‘.so.nhā (V~) → PURP: in order that it may cause to V [=WB cim‘.so.nhā ]

(87) ratanā.sum.pā.so.kaiv‘ paccaññ‘.4.pā aluv‘.ra.cim‘.sohā lhu.so
jewels.three.CLF.ATTR.to property.4.CLF necessity.get.PURP donate.ATTR
Four slaves and 166 paddy fields which (I) dedicated to the Three Gems for the purpose of usage of the Four Necessities.' (Inscr. III-316)

'I dedicated fields so that they would become the property of the Three Gems in the monastery.' (Inscr. I-24)

'The land which Ohn Mun Thin's daughter donated to the stupa, so that it would not run out of food and lamps, is 50 pai in Salin.' (Inscr. I-12)

'(I) constructed the brick walls around a pond named Amana because (I) want to attain the state of Nirvana.' (Inscr. I-12)
The structure of Pagan period Burmese

When [I enshrined a relic of the Buddha in the cave-shrine on Friday, the 2nd waxing day of Tazaungmon in Sakkaraja year 556, since I wanted to become an omniscient Buddha.' (Inscr. I-10a)

- ၗောင်း raka (V-) → since/because V [=WB ၗောင်း: raka" jaga]

(92) mvat'sip' chuiv'tiray'.so. kuiv' ma.tuiv' khaiv', rakā purhā. mahā. sakhaiv'. nhā'e'

hungry.unhappy.ATTR.OBJ NEG.want.since Buddha.great.lord.and

this.monastery live.ATTR.monkhood.to donate.ATTR.TOP Salay.pay.2000

'(I) dedicated 2000 pay of Salay land to the Lord Buddha and to the monks who live in this monastery, in order to avoid the agony of hunger.' (Inscr. I-10a)

(93) mahādhi. dhama. raja. guru. kuiv' man'. kri. nādōn'. mya' nai.so


mahāthi. kron'. purhā.ā

writing.learn.since king.become.SUBORD Mahadhi.monastery.Buddha.to

king.big.Nadaungmya donate.ATTR.Myit-tha.field.100

'Since King Nadaunmya had learned as a pupil with Mahadhi Dhammaraja Guru when he was young, he, after his ascending to the throne, dedicated 100 paddy fields at Myittha to the Buddha in Mahadhi monastery.' (Inscr. I-63a)

(94) kā pri. rakā phurhā. loīn'. kuiv' nā. krā.e'.

cave finish.since Buddha.future.to I.report.REAL

'When (the construction of) the cave-temple was finished, I reported it to the Buddha-to-be (the king).' (Inscr. II-181)

(95) ahuiv' nā. luiv'. ca hū. rakā ahuiv' nā piy'. e'.

value I.want.EXCL say.because value I give.REAL

'Since [he] said "I want money!" I paid it.' (Inscr. I-79a)
• ကြက် lyak' (V-) → while V-ing [=WB ကြက် lyak' ချစ်?]

(96) လူသည် lyak'. ma.cà, နိုင်: khyàn'. lyak'. ma.sok', နိုင်: ကြက်
eat.want.while NEG.eat, starve, drink.want.while NEG.drink, thirst.
‘Though they want to eat, they starve; though they want to drink, they thirst.’
(Inscr. II-202)

(97) ကြက် lyak'. ma.cà, နိုင်: khyàn'. lyak'. ma.sok'. ma.sok
nob.le.ATTR.benefit.with full.while suffering.significance.NEG.know.want
‘Being full of holy benefit, they are not aware of suffering.’
(Inscr. III-235)

Nominalised clauses

Embedded clauses within complex sentences are frequently nominalised, as in (98)–(100). In these sentences, the nominalised clause functions either as the topic (98)–(99) or as the grammatical object (100) of the sentence.

(98) ကြက် lyak'. ma.cà, နိုင်: khyàn'. lyak'. ma.sok'
monastery.donate.ATTR.TOP total slave.NOM 5.CLF
‘His donation to the monastery amounted to five slaves.’
(topic: ‘that which he donated’)

(99) prayer.recite.ATTR.TOP lord.MahaThera (...)
paritta true.EXCL
‘It is true that those who recited the paritta were eight persons including Maha
Thera.’
(topic: ‘those who recited the paritta’)

(100) ကြက် lyak'. ma.cà, နိုင်: khyàn'. lyak'. ma.sok'. ma.sok
starve.suffer.ATTR.OBJ NEG.desire.since
‘Since I do not desire starving and suffering...’
[object: ‘(my) starving and suffering...’]

Relative clauses

Relative clauses preceded the noun, ending with the attributive clause marker ကြက် so, still found in modern formal Burmese. The relative clauses are underlined in sentences (101)–(108). In sentences (105)–(108), the intensifier သာ sová is added to the verb in the attributive relative clause.
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(101) ဗုဒ္ဓာ ဗုဒ္ဓာများ ထိုဝင်သည်
sa:mliy.teiv.kä.cä.so thaman'han'
son.grandson.PL.TOP.eat.ATTR rice.curry
'Rights and curry which sons and grandsons [will] eat.' (Inscr. I-5)

(102) နာမ့သုံးခြင်း နာမ့သုံးခြင်း ပါစေ
nä:plu.so kū nä:plu.so purahā
I.make.ATTR cave I.make.ATTR Buddha
'The cave-temple and Buddha that I constructed.' (Inscr. I-21)

(103) အိမ်ထိပ်ချည်း နာမ့သုံးခြင်း
ukhoń:chań:so.tan'chā, laññ:chań:so.tan'chā,
head.adorn.ATTR.ornaments neck.adorn.ATTR.ornaments
ညီ ညီးထိပ်ချည်း
kuiv':chań:so.tan'chā, khā: chań:so.tan'chā,
body.adorn.ATTR.ornaments waist.adorn.ATTR.ornaments

(104) ပလေးချည်း ၏ွိမ်းဗားလေး ထိုဝင်သည်
phlac:sa.chuiv'irray uiv:mań:sa.chuiv'irray siy:sa.chuiv'irray
exist.ATTR.suffering aged.ATTR.suffering die.ATTR.suffering
'Suffering in birth, suffering in growing old, suffering in death.' (Inscr. II-216)

(105) ရွတ်ချည်း ရွတ်ချည်း ဗုဒသည်
ra.khai.cvā.so ratanā:sun.pā
obtain.difficult.very.ATTR jewel.three.CLF
'The Three Gems which are very difficult to obtain.' (Inscr. I-69)

(106) ကျွန့်ချည်း
taritay:cvā.so.kā
splendid.very.ATTR.cave
'A cave temple which is most splendid.' (Inscr. II-194)

(107) ညားချည်း
sayā.cvā.so.klon'
pleasant.very.ATTR.monastery
'A very pleasant monastery.' (Inscr. II-194)

(108) ကျွန့်ချည်း
taritay:cvā.so.ut'
splendid.very.ATTR.brick
'Very splendid brick' (Inscr. III-247)
Such clauses could also appear as the final main predicate of a sentence, as in (109) and (110), containing stative verbs in which the attributive clause marker သား so was equivalent to the sentence-final verb marker မှ e°.

(109) အန်းဟိုးသူသူ ထန်းသစေရွှင်သူသူ သားတွေ
and.mya.so, သုံးသစ်ရွှင်vetana.kri.so, သတင်း.kva.so
disease.many.ATTR poor.pain.big.ATTR back.hunched.ATTR

နောင်း၀င်သူ
leprous.many.ATTR
‘[He will be] riddled with disease, poor and greatly suffering, hunchbacked and mangy with leprosy.’ (Inscr. I-12)

(110) အဝါဝါဝါင်
asak'.rhaññ'.e°
life.long.REAL
‘Life is long.’ (Inscr. I-38a)

4 Word classes and phrase syntax
This section looks at the characteristics of nouns, verbs, adjectives and the function of various noun and verb particles.

Nouns
The great majority of nouns and verbs in Pagan period Burmese were monosyllabic, as in (111):

(111) Monosyllabic nouns and verbs

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြည်</td>
<td>khyac'</td>
<td>love</td>
<td>ကြည်</td>
<td>khyac'</td>
<td>သား</td>
</tr>
<tr>
<td>သီး</td>
<td>chan'</td>
<td>elephant</td>
<td>သီး</td>
<td>chan'</td>
<td>ဆီ</td>
</tr>
<tr>
<td>သီး</td>
<td>thi'</td>
<td>finial on stupa</td>
<td>သီး</td>
<td>thi'</td>
<td>သီး</td>
</tr>
<tr>
<td>မီး</td>
<td>tu'</td>
<td>dig</td>
<td>မီး</td>
<td>tu'</td>
<td>မီး</td>
</tr>
<tr>
<td>သီး</td>
<td>tak'</td>
<td>ascend</td>
<td>သီး</td>
<td>tak'</td>
<td>သီး</td>
</tr>
<tr>
<td>သီး</td>
<td>than'</td>
<td>toddy palm</td>
<td>သီး</td>
<td>than'</td>
<td>သီး</td>
</tr>
<tr>
<td>သီး</td>
<td>nhac'</td>
<td>year</td>
<td>သီး</td>
<td>nhac'</td>
<td>နီ</td>
</tr>
<tr>
<td>သီး</td>
<td>niy'</td>
<td>live</td>
<td>သီး</td>
<td>niy'</td>
<td>နီ</td>
</tr>
<tr>
<td>သီး</td>
<td>min'</td>
<td>command</td>
<td>သီး</td>
<td>min'</td>
<td>များ</td>
</tr>
<tr>
<td>သီး</td>
<td>lā'</td>
<td>proceed</td>
<td>သီး</td>
<td>lā'</td>
<td>လာ</td>
</tr>
<tr>
<td>သီး</td>
<td>sat'</td>
<td>kill</td>
<td>သီး</td>
<td>sat'</td>
<td>သမ်</td>
</tr>
<tr>
<td>သီး</td>
<td>im'</td>
<td>house</td>
<td>သီး</td>
<td>im'</td>
<td>လေး</td>
</tr>
</tbody>
</table>
Most bisyllabic or polysyllabic words in the inscriptions can be analysed as polymorphemic compounds, with the first and second components both carrying independent meanings, as in (112):

(112) Bimorphemic compounds in Pagan period Burmese

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>gloss</th>
<th>WB</th>
<th>transl</th>
<th>pron</th>
</tr>
</thead>
<tbody>
<tr>
<td>မိုး</td>
<td>khyainsă</td>
<td>rich (&lt; cool + pleasant)</td>
<td>မိုး</td>
<td>khyam’să</td>
<td>သီးနှံအ</td>
</tr>
<tr>
<td>စျိုး</td>
<td>sükhuiv'</td>
<td>thief (&lt; person + steal)</td>
<td>စျိုး</td>
<td>sükhuiv'</td>
<td>သီးခြေအ</td>
</tr>
<tr>
<td>ပုံး</td>
<td>phathuy'</td>
<td>uncle (&lt; father + little)</td>
<td>ပုံး</td>
<td>bhathye'</td>
<td>ပုံးအ</td>
</tr>
<tr>
<td>မီး</td>
<td>myak’nhā</td>
<td>face (&lt; eye + nose)</td>
<td>မီး</td>
<td>myak’nhā</td>
<td>မီးအ</td>
</tr>
<tr>
<td>ဝေး</td>
<td>vaṁśā</td>
<td>happy (&lt; belly + pleasant)</td>
<td>ဝေး</td>
<td>vam’să</td>
<td>ဝေးအ</td>
</tr>
</tbody>
</table>

Complex noun phrases could be formed from nouns with postpositioned adjectives, as in (113) a. and b.

(113) a. လမ်းပန်းကြီး b. ချမ်းချမ်းကြည်မှု့နှု့

- tray.big pagoda bell.small
- ‘big tray’ ‘small pagoda bell’

Noun–noun compounds, as in (114), the first noun modifies the second noun. Examples of object–verb compounds are shown in (115), and of subject–verb compounds in (116).

(114) noun–noun compounds

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>gloss</th>
<th>translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြားမြောက်</td>
<td>kyok’să</td>
<td>stone.writing</td>
<td>inscription</td>
</tr>
<tr>
<td>စီးမြောက်</td>
<td>nuy’thī</td>
<td>silver.umbrella</td>
<td>silver hti</td>
</tr>
<tr>
<td>ချမ်းချမ်း</td>
<td>chaṁ’cvay’</td>
<td>elephant.tusk</td>
<td>ivory</td>
</tr>
<tr>
<td>ရော်းမြောက်</td>
<td>rhvuy’thī</td>
<td>gold.umbrella</td>
<td>golden hti</td>
</tr>
<tr>
<td>ရိုးစီးကြီး</td>
<td>rvā.sū.krī</td>
<td>village.person.big</td>
<td>village chief</td>
</tr>
</tbody>
</table>

(115)

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>gloss</th>
<th>translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ချမ်းချမ်း</td>
<td>chaṁ’thin’</td>
<td>elephant.keep</td>
<td>elephant keeper</td>
</tr>
<tr>
<td>ဒီးမြောက်</td>
<td>nuiv’.cuic’</td>
<td>milk.suckle</td>
<td>suckling</td>
</tr>
</tbody>
</table>

(116)

<table>
<thead>
<tr>
<th>OB</th>
<th>transl</th>
<th>gloss</th>
<th>translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>kok’.lyan’</td>
<td>paddy.fast</td>
<td>fast-maturing paddy</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>krvay’.phlā</td>
<td>copper.white</td>
<td>white copper</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>klon’.krī</td>
<td>monastery.big</td>
<td>large monastery</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>။ နှစ်ကြည်</td>
<td>hell.little</td>
<td>little hell</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>myā’.nay’</td>
<td>wife.small</td>
<td>concubine</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>sū.krī</td>
<td>person.big</td>
<td>chief</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>sū.krvay’</td>
<td>person.rich</td>
<td>rich person</td>
</tr>
<tr>
<td>ကြားမြောက်ကြည်</td>
<td>sū.chaṁ’ra’i</td>
<td>person.poor</td>
<td>poor person</td>
</tr>
</tbody>
</table>
Noun formation

Derivational morphology in Pagan period Burmese included the formation of nouns from verbs using the prefix a, as in (117). Examples of nouns derived from bisyllabic verbs are given in (118).

(117) noun → verb derivation by a prefixation

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>のきん &gt; あきん</td>
<td>kin &gt; akin'</td>
<td>curse (v.) &gt; curse (n.)</td>
</tr>
<tr>
<td>きゃん &gt; あきゃん</td>
<td>kyan' &gt; akyan'</td>
<td>practise &gt; behaviour</td>
</tr>
<tr>
<td>い vat &gt; あい vat</td>
<td>lvat' &gt; alvat'</td>
<td>set free &gt; liberation</td>
</tr>
<tr>
<td>あ &gt; あ</td>
<td>sa &gt; asa</td>
<td>begin &gt; beginning</td>
</tr>
<tr>
<td>あちん &gt; ああちん</td>
<td>cha'nyai &gt; acha'nyai</td>
<td>be poor &gt; poverty</td>
</tr>
<tr>
<td>あぐ &gt; あぐ</td>
<td>nā &gt; anā</td>
<td>be ill &gt; disease</td>
</tr>
<tr>
<td>あぬ &gt; あぬ</td>
<td>phlac' &gt; aphlac'</td>
<td>be, become &gt; being, state</td>
</tr>
<tr>
<td>あむ &gt; あむ</td>
<td>min' &gt; amin'</td>
<td>order (v.) &gt; instruction</td>
</tr>
<tr>
<td>あぬ &gt; あぬ</td>
<td>lhū &gt; alhū</td>
<td>donate &gt; donation</td>
</tr>
<tr>
<td>あmu &gt; あむ</td>
<td>hī' &gt; ahi'</td>
<td>live &gt; life</td>
</tr>
<tr>
<td>あぬ &gt; あぬ</td>
<td>siy' &gt; asiy'</td>
<td>die &gt; death</td>
</tr>
</tbody>
</table>

The prefix a is added to both parts of the following disyllabic verbs, as in (118):

(118)

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ある + ある &gt; ああるあある</td>
<td>lā + lā &gt; alālā</td>
<td>go + come &gt; movement</td>
</tr>
<tr>
<td>あんな &gt; ああんな</td>
<td>あんにな &gt; aāni naa</td>
<td>conform &gt; in conformity with</td>
</tr>
<tr>
<td>あつよう &gt; ああつよう</td>
<td>あつゆ &gt; aātyu</td>
<td>prosper &gt; progress</td>
</tr>
<tr>
<td>あがる &gt; ああがる</td>
<td>あがる &gt; aāgar</td>
<td>hurt, injure &gt; oppression</td>
</tr>
<tr>
<td>おな &gt; おな</td>
<td>おな &gt; aōna</td>
<td>be fitting &gt; appropriateness</td>
</tr>
<tr>
<td>あがる &gt; ああがる</td>
<td>あがる &gt; aāgar</td>
<td>splendid &gt; splendour</td>
</tr>
<tr>
<td>あがる &gt; ああがる</td>
<td>あがる &gt; aāgar</td>
<td>persecute &gt; persecution</td>
</tr>
<tr>
<td>あがる &gt; ああがる</td>
<td>あがる &gt; aāgar</td>
<td>hand over, transfer &gt; giving</td>
</tr>
<tr>
<td>あがる &gt; ああがる</td>
<td>あがる &gt; aāgar</td>
<td>destroy &gt; destruction</td>
</tr>
<tr>
<td>あがる &gt; ああがる</td>
<td>あがる &gt; aāgar</td>
<td>know by seeing &gt; eye-witness</td>
</tr>
</tbody>
</table>

In (117)–(118) the prefix a has the function of forming a verbal noun from a verb. It seems that in kinship terms the prefix a may have had the function of third-person pronominal prefix. Words illustrating this, and the first-person prefix was c な, are given in (119).
### Pronominal prefixation

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Pronunciation</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>မဖha</td>
<td>mîpha</td>
<td>parents</td>
</tr>
<tr>
<td>မဖaဖha</td>
<td>amî'apha</td>
<td>his/her parents</td>
</tr>
<tr>
<td>မnilaipha</td>
<td>namiñapha</td>
<td>my parents</td>
</tr>
<tr>
<td>မamphetamine</td>
<td>amî</td>
<td>his/her mother</td>
</tr>
<tr>
<td>မamphetamine</td>
<td>nami</td>
<td>my mother</td>
</tr>
<tr>
<td>သကာကဗို</td>
<td>takâkrîma</td>
<td>mother of a layman</td>
</tr>
<tr>
<td>အဖha</td>
<td>aphâhî</td>
<td>his/her father</td>
</tr>
<tr>
<td>မဖha</td>
<td>napha</td>
<td>my father</td>
</tr>
<tr>
<td>မဖihat</td>
<td>sakhiîît</td>
<td>lord</td>
</tr>
<tr>
<td>မဖihat</td>
<td>asakhiîît</td>
<td>his/her lord</td>
</tr>
<tr>
<td>မဖihat</td>
<td>nasakhiîît</td>
<td>my lord</td>
</tr>
<tr>
<td>မဖiphu</td>
<td>mipurhâ</td>
<td>consort</td>
</tr>
<tr>
<td>မဖiphu</td>
<td>amipurhâ</td>
<td>his consort</td>
</tr>
<tr>
<td>မဖo</td>
<td>sâ</td>
<td>son</td>
</tr>
<tr>
<td>မဖo</td>
<td>asâ</td>
<td>his/her son</td>
</tr>
<tr>
<td>မဖo</td>
<td>nasâ</td>
<td>my son</td>
</tr>
<tr>
<td>မဖyâa</td>
<td>miyâhî</td>
<td>wife</td>
</tr>
<tr>
<td>မဖyâa</td>
<td>amiyâ</td>
<td>his/her wife</td>
</tr>
<tr>
<td>မဖyâa</td>
<td>namiyêhî</td>
<td>his/her wife</td>
</tr>
<tr>
<td>မဖe</td>
<td>nîma</td>
<td>younger sister</td>
</tr>
<tr>
<td>မဖe</td>
<td>anîma</td>
<td>his younger sister</td>
</tr>
<tr>
<td>မဖe ~ မဖe</td>
<td>samîht ~ samî</td>
<td>daughter</td>
</tr>
<tr>
<td>မဖe</td>
<td>asamîhî</td>
<td>his/her daughter</td>
</tr>
<tr>
<td>မဖe ~ မဖe</td>
<td>chuy'mluîv</td>
<td>family</td>
</tr>
<tr>
<td>မဖe ~ မဖe</td>
<td>achuy'amluîv</td>
<td>his/her family</td>
</tr>
<tr>
<td>မဖe ~ မဖe</td>
<td>nachuy'namluîv</td>
<td>my family</td>
</tr>
</tbody>
</table>

### Pronouns

Certain pronouns developed from nouns with pronominal prefixes. These pronouns were also found in conjunction with kinship nouns, as in (120)

(120) Pronouns

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Pronunciation</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>အသို</td>
<td>atuîv'</td>
<td>they (later 'we', and see (126))</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'sakhiîtı</td>
<td>their lord</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'kyyan'</td>
<td>their slave ( later 'I')</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'kyyan'pha</td>
<td>my father</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'kyyan'phakré</td>
<td>my uncle</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'kyyan'laîı</td>
<td>my husband</td>
</tr>
<tr>
<td>နatuiy'kyyan'</td>
<td>natiy'kyyan'</td>
<td>our slave (later 'I')</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'muiy'mliy'</td>
<td>our sky and land</td>
</tr>
<tr>
<td>အသိုးးြွေး</td>
<td>atuîv'mañ'mliy'</td>
<td>land of our king</td>
</tr>
</tbody>
</table>
Further examples of pronominal prefixation are found in (121)–(122).

(121) riły’mly’ khap’sim’so asakhín’ phlac’so mañ’kří
water.land all.ATTR [its]lord be.ATTR king.great
‘Great king who reigns as lord over the water and the earth.’ Inscr. II-194

(122) rataná apoti’apav’ asakhín’ phlac’thaso mañ’
jewel companion [its]lord be.EUPH.ATTR king.great
‘King, Lord of treasure and of retinue.’ Inscr. III-247

The prefix a seems to have been optional in ok’ ~ aok’ ‘bottom’, the opposite of athak’ ‘top’. Analogously, mlak’ ~ myok’ ‘north’ was freely interchangeable with mlac’ok’ ~ myac’ok’ ‘downstream/downriver’. However, toñi ‘south’ was also the word for ‘mountain’. It is tempting to speculate that these words for ‘north’ and ‘south’ reflected the geographical environment from which the early Burmans migrated towards the Irrawaddy river basin. The ‘river’ which forms the first component of ‘north’ clearly cannot refer to the Irrawaddy, since that river flows not from toñi ‘mountain/south’ to mlac’ok’ ‘downstream/north’, but from north to south, so the river in question must be some other river. The forms mlac’ok’ ~ myac’ok’ are found denoting ‘north’ in Pe Maung Tin and G. H. Luce’s Inscriptions of Burma Porfolios I–IV, plates 123, 174, 177b, 224, 244, 250, 380 and 474.

Two suffixes yielded nouns from verbs: khrañ’ (> WB khrañ” wñhñ) and mhu, as in (123) and (124):

(123)

<table>
<thead>
<tr>
<th>OB noun</th>
<th>trsl</th>
<th>gloss</th>
<th>OB verb</th>
<th>trsl</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>kyañ’khrañ’</td>
<td>khyañ’</td>
<td>practise</td>
<td></td>
<td>kyañ’</td>
<td>practised</td>
</tr>
<tr>
<td>tañ’tay’khrañ’</td>
<td>tañ’tay’</td>
<td>be fitting</td>
<td></td>
<td>tañ’tay’</td>
<td>be fitting</td>
</tr>
<tr>
<td>nñhan’chaikhráñ’</td>
<td>nñhan’chai</td>
<td>oppression</td>
<td></td>
<td>nñhan’chá</td>
<td>oppress</td>
</tr>
<tr>
<td>sat’khrañ’</td>
<td>sat’</td>
<td>execution</td>
<td></td>
<td>sat’</td>
<td>kill</td>
</tr>
</tbody>
</table>

(124) koñ’mhu | act of merit | koñ’ | good |
| khuiv’mhu | theft | khuiv’ | steal |

Pagan period Burmese made use of the pronouns in (125), which could be made plural by adding the suffix tuiv” or tuiv’, as in (126), as in modern Burmese.

(125) ńá 1
akyon’~akyvan’ 1 (polite, lit. ‘your slave’) 
avatí’kyvan’ 1
ńatí’kyvan’ 1
sañ’ you
ña you
The structure of Pagan period Burmese

The same plural suffix သာ သာ was applied to nouns referring to human beings, as in (127).

(127) နာ ကျော်နှင့် ကျော် ကျော်က ကျော်က

my monastery.in live.ATTR lord.PL

'The senior monks living in my monastery.' (Inscr. III-275)

(128) အဝါကျော်ကျော်က ကျော်က ကျော်က

Avici.of.above he.PL beneath fall.CAUS.REAL

'May they fall so that they are beneath and Avici is above' (Inscr. I-11)

(129) စန်း ကျော်ကျော်ကျော်က ကျော်က ကျော်က

you.PL three.CLF.also rest.take.POL.CAUS still QUOT order.REAL

'He ordered the three of them to rest.' (Inscr. II-139)

The same plural suffix သာ သာ is also found with the inanimate nouns in (130):

(130) ကျော်ကျော်ကျော်က ကျော်က ကျော်က

land

mountains

silver appendages

Demonstrative Pronouns

Pagan period Burmese used the demonstrative pronouns in (131). Examples of these in combination with nouns are given in (132) and (133).

(131) OB တရာ ဆို သဒု တရာ

that သဒု သဒု

this သဒု သဒု
(132) OB trsl gloss WB trsl

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Trsl</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>i'</td>
<td>this</td>
<td>i'</td>
</tr>
<tr>
<td>i'y'kloj'</td>
<td>this monastery</td>
<td>i'y'kloj'</td>
</tr>
<tr>
<td>i'y'nuik'</td>
<td>here</td>
<td>i'n*</td>
</tr>
<tr>
<td>i'y'suiv'</td>
<td>in this way</td>
<td>i'y'suiv'</td>
</tr>
<tr>
<td>thuiv'</td>
<td>that</td>
<td>thuiv'</td>
</tr>
<tr>
<td>thuiv'kui</td>
<td>that cave</td>
<td>thuiv'kui</td>
</tr>
<tr>
<td>thuiv'tvañ'</td>
<td>there</td>
<td>thuiv'tvañ'</td>
</tr>
<tr>
<td>thuiv'suiv'</td>
<td>in that way</td>
<td>thuiv'suiv'</td>
</tr>
</tbody>
</table>

(133) i'y.su | suñ yok' | this.person three.CLF

'These three people.'

Verbs

(a) Transitive and intransitive verbs

Pagan period Burmese had transitive-intransitive verb pairs distinguished by aspirated and unaspirated initial consonants, as in modern Burmese. Examples are shown in (134).

(134) Transitive–intransitive verb pairs

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>trsl</th>
<th>gloss</th>
<th>Transitive</th>
<th>trsl</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>kla</td>
<td>fall</td>
<td>khya</td>
<td>drop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kyak'</td>
<td>be cooked</td>
<td>khyak'</td>
<td>cook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kvai</td>
<td>be broken</td>
<td>khvai</td>
<td>break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>klvat'</td>
<td>be liberated</td>
<td>khlvat'</td>
<td>emancipate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lvat</td>
<td>be free</td>
<td>lhvat</td>
<td>set free</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) Verb reduplication

Verb reduplication was used to express excessiveness or continuation of an action, as in (135)-(138). This was sometimes written using the numeral j2 'two'.

(135) big.REDUP.very.ATTR nobleman

'A nobleman of exceedingly high rank' (Inscr. I-69)

(136) special.REDUP.ATTR kill.NOM.to arrive.all.REAL

'They were all killed by diverse methods of execution.' (Inscr. II-168)
Adverbs

Adverbs in the inscriptions were formed in one of three ways. The first is with the adverbial suffix ဗား cvā seen above in attributive relative clauses forms adverbs which modify verbs, as in the underlined phrases in (139) and (140). Adverbial phrases formed from verbs are the second type of adverb, such as those underlined in sentences (141)–(147). A third type of adverbs are derived from nouns, such as the underlined phrase in sentence (148).

(139) အိုင်း ရှိ များ ကြိုးကြယ်စုစုပေါင်းအားလုံး
asak' ရှိခြင်း.cvā niy'.ra. ciy'.e'
life long. ADV live. can. CAUS REAL
'May [he] enjoy a long life.' (Inscr. I-82b)

(140) မိုးနှင်း များနှင်း ကြိုးကြယ်စုစုပေါင်း အားလုံး
mray'mrarn.cvā nā.plu.so koṁ'mhu.kuí`v' thipā.so
steadfast.ADV 1.make.ATTR act of merit.OBJ violate.ATTR

ဗုဒ္ဓိစားနေသောကြားစဂစုစုစုပေါင်း
phyak'chi.so.št. kā
destroy. ATTR. person. TOP
'The person who encroaches and destroys my meritorious deeds, carried out steadfastly.' (Inscr. II-153a)

(141) များနှင်းများနှင်း ကြိုးကြယ်စုစုပေါင်း အားလုံး
mit'taṁn.phurhā.sakhīn' phlac'sarhav'.khā.nhuik' makhvyat'
Maitreya. Buddha. Lord be.when.time.in without fail

ဗုဒ္ဓိစားနေသောကြားစဂစုစုစုပေါင်း
phit.khalyaι.so.kroìn'
worship.want. because
'Because I wish to pay obeisance to Maitreya without fail when he appears in this world.' (Inscr. III-293)
May those who destroy [this] be drowned endlessly in the hell of Avici.' (Inscr. III-290)

These four persons whom I dedicated are to serve Buddha and the monastery always.' (Inscr. II-197).

'I pray that all human beings, nats and living creatures, without exception, may reach the happy state of nirvana.' (Inscr. I-69)

'I also painted 550 jataka stories properly.' (Inscr. II-194)
The structure of Pagan period Burmese

(147) village.headman.PL forcibly tax.request.REAL
‘The village headmen forcibly demanded tax.’ (Inscr. II-196)

(148) land.big.mountain.PL.all flour.2.crush.2 destroy.as destroy.CAUS.REAL
‘May they be destroyed just as earth and mountains are crushed to fine particles.’
(Inscr. I-63a)

Numerals

All the numerals of modern Burmese are found in the inscriptions, as in (149).

(149) Numerals in OB

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss</th>
<th>WB</th>
<th>trsl</th>
</tr>
</thead>
<tbody>
<tr>
<td>တာ</td>
<td>tae'</td>
<td>one</td>
<td>တတ်</td>
<td>tae'</td>
</tr>
<tr>
<td>စူး</td>
<td>nhac'</td>
<td>two</td>
<td>စူး</td>
<td>nhac'</td>
</tr>
<tr>
<td>ကော်</td>
<td>suin'</td>
<td>three</td>
<td>ကော်</td>
<td>suin'</td>
</tr>
<tr>
<td>လူမု</td>
<td>liy'</td>
<td>four</td>
<td>လူမု</td>
<td>liy''</td>
</tr>
<tr>
<td>ကြား</td>
<td>nā'</td>
<td>five</td>
<td>ကြား</td>
<td>nā''</td>
</tr>
<tr>
<td>စိန်း</td>
<td>khrok'</td>
<td>six</td>
<td>စိန်း</td>
<td>khrok'</td>
</tr>
<tr>
<td>မှန်ဟာ</td>
<td>khunhac'</td>
<td>seven</td>
<td>မှန်ဟာ</td>
<td>khunhac'</td>
</tr>
<tr>
<td>ရှိ/ရး/ရုး</td>
<td>yhac'—rhec'—het'</td>
<td>eight</td>
<td>ရှိ</td>
<td>yhac'</td>
</tr>
<tr>
<td>ကြား</td>
<td>kān'</td>
<td>nine</td>
<td>ကြား</td>
<td>kān'</td>
</tr>
<tr>
<td>ကြား</td>
<td>chay'</td>
<td>ten</td>
<td>ကြား</td>
<td>chay'</td>
</tr>
<tr>
<td>စိန်း</td>
<td>rya'</td>
<td>hundred</td>
<td>စိန်း</td>
<td>rya'</td>
</tr>
<tr>
<td>စိုင်း/စိုင်း/စိုင်း</td>
<td>thou'</td>
<td>thousand</td>
<td>စိုင်း</td>
<td>thou'</td>
</tr>
<tr>
<td>စိုင်း/စိုင်း/စိုင်း</td>
<td>soini'</td>
<td>10,000</td>
<td>စိုင်း</td>
<td>soini'</td>
</tr>
<tr>
<td>စိုင်း/စိုင်း/စိုင်း</td>
<td>sin'</td>
<td>100,000</td>
<td>စိုင်း</td>
<td>sin''</td>
</tr>
</tbody>
</table>

Classifiers

Numerals were used in conjunction with classifiers, the most common of which are listed in the examples in (150):

(150) Classifiers

<table>
<thead>
<tr>
<th>OB</th>
<th>trsl</th>
<th>gloss (with translation if unclear)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ကြား</td>
<td>kān'.1.kan'</td>
<td>lake.1.lake</td>
</tr>
<tr>
<td>ရှိ/ရး/ရုး</td>
<td>rhvuy'.65.klyap'</td>
<td>gold.65.ticals</td>
</tr>
<tr>
<td>ကြား</td>
<td>ၿိုး'.5.klyap'</td>
<td>silver.5.ticals</td>
</tr>
<tr>
<td>ကြား</td>
<td>pyatā.92.klyap'</td>
<td>mercury.92.tical</td>
</tr>
</tbody>
</table>
purhā.1.khu
chānmitui".5.khu
cāsān'kloī'.nā.khu
klvay'.5.khu
nvā.7.khu
tvāpūk'.4.khu
laṁ'pan'.2.khlap'
nōn'nañ'.9.khlap'
khvāk'.3.khlap'
rē.śurīn.khāñ'
chañ'.tač'.ci
mənā'.1.ci
lu'ñ.7.ci
purhā.4.chu
sānakā'.3.chu
khvāk'khañ'.śurīn.chu
khvā'.3.chu
sān'loñ.1.chu
cārap'.8.chon'
cāpā'.34.tañ'
avat'phyāt'.2.thaññ'
puchūv'.45.thaññ'
atuak'sak'kharī.3.thaññ'
æo'k'sak'kharī.1.thaññ'
arap'.śurīn.pā
ratanā.śurīn.pā
Buddha.1.thing
oil.lamp.pole.5.things
school.five.things
buffalo.five.things
cow.7.things
bullock.4.things
tray.2.flat.things
bell.2.flat.things
cup.3.flat.things
farmland.three.areas
elephant.one.ride
horse.1.ride
cart.7.ride
statue.4.holy.objects
robe.3.holy.objects
cymbal.three.holy.objects
bell.3.holy.objects
palanquin.1.holy.object
shelter.8.houses
rice.34.bushels
tunic.2.garments
waistcloth.45.garments
upper.garment.3.garments
lower.garment.1.garment
region.three.abstract.objects
jewel.three.abstract.objects
‘the Three Gems’
nikāya.five.sacred.objects
‘five sections of the Sutta Pitaka’
day.three.drumstrokes
‘three drumstrokes of daytime’
paddy.5.pay
plant.plot.3.pay
‘three pay of planting land’
mango.9.plants
banyan.two.plants
liquor.value.meat.value.5.viss
‘five viss of liquor and meat’
rice.three.pyi
‘three pyi of husked rice’

nikāy'.nā.pā
niy'.śurīn.pahūtī
lay'.5.pay
pluiv'khañ'.3.pay'
sirak'.9.pañ'
ññoñ'.nhaç.pañ'
ṣiy'phuiv'sāphuiv'.5.pisā
chan'.śurīn.praññī
nikāya.five.sacred.objects
‘five sections of the Sutta Pitaka’
day.three.drumstrokes
‘three drumstrokes of daytime’
paddy.5.pay
plant.plot.3.pay
‘three pay of planting land’
mango.9.plants
banyan.two.plants
liquor.value.meat.value.5.viss
‘five viss of liquor and meat’
rice.three.pyi
‘three pyi of husked rice’
Interestingly, one classifier which is not found anywhere in the inscriptions is the classifier ကြက်ကမ်းကောင်း ကြက် we find ကြက် for counting animals, as in ကြက်ကမ်းကောင်း ကြက် ‘buffalo.thing’ ကြက်ကမ်းကောင်း ကြက် ‘cow.thing’. Animals used for transport, however, were counted with ကြက်ကမ်းကောင်း ကြက် ‘elephant.ride’ and ကြက်ကမ်းကောင်း ကြက် ‘horse.ride’.

Another point worthy of note is that in the inscriptions monks and holy beings are counted with ကြက်ကမ်းကောင်း ကြက် which counts lay humans in modern Burmese, and not with the classifier ကြက်ကမ်းကောင်း ကြက် which is used for holy beings in modern Burmese, thus ကြက်ကမ်းကောင်း ကြက် ‘priests.two.people’.

Similarly, in the inscriptions holy objects are counted, as in (151), with ကြက်ကမ်းကောင်း ကြက် which counts ordinary secular objects in modern Burmese, rather than with ကြက်ကမ်းကောင်း ကြက် ‘buddha.image’. (151) ကြက်ကမ်းကောင်း ကြက်ကမ်းကောင်း ကြက်ကမ်းကောင်း ကြက်ကမ်းကောင်း ကြက် ကြက်ကမ်းကောင်း ကြက်ကမ်းကောင်း ကြက်ကမ်းကောင်း ကြက် ‘one golden Buddha image and one silver Buddha image’.

Noun markers: postpositions and case-marking particles

A range of post-positional particles and noun markers, many with a case-marking function, which express the relation of nouns to other words in the sentence.

- ကြက်ကမ်းကောင်း kā (PHRASE—) → TOP/SUBJ: topic/subject marker [=WB ကြက် ‘kā’]
- ကြက်ကမ်းကောင်း kuiv’ (N—) → OBL: object/accusative marker [=WB ကြက်ကမ်းကောင်း kuiv’ ‘kā’]
- ကြက်ကမ်းကောင်း kuiv’ (N—) → to N: indirect object/dative marker [=WB ကြက်ကမ်းကောင်း kuiv’ ‘kā’]
- ကြက်ကမ်းကောင်း ၊ (N—) → to N: indirect object/dative marker [=WB ကြက်ကမ်းကောင်း ၊ ‘kā’]
- ကြက်ကမ်းကောင်း phlan“ (N—) → with N: instrumental marker [=WB ကြက်ကမ်းကောင်း phlan“ ‘kā’]
- ကြက်ကမ်းကောင်း nhaį“ (N—) → with N: instrumental marker [=WB ကြက်ကမ်းကောင်း nhaį“ ‘kā’]
- ကြက်ကမ်းကောင်း mha (N—) → from N: source/ablative marker [=WB ကြက်ကမ်းကောင်း mha ‘mā’]
- ကြက်ကမ်းကောင်း e“ (N—) → GEN: from N: genitive/possessive marker [=WB ကြက်ကမ်းကောင်း e“ ‘kā’]
• ផ្លែឈើ suiv' (N–) → to N: direction to or towards [=WB ប្រឹក suiv' ដឺ]
• ខ្មៅ nhuaik' (N–) → in N: location [=WB ត្រ n* nai?] 
• ស្តោភៃ tvan' (N–) → in N: location [=WB ស្តោភៃ tvan' twin]
• ឈើ ឆ្លង (N–) → in N: location [no WB equivalent]
• ស្តោភៃ lyhain' (N–) → in N: location [no WB equivalent]
• ឈើ thak' (N–) → more than N: comparative marker [=WB ឈើ thak' th£7]
• ស្តោភៃ le-laññ also (N–) → also, and, both…and [=WB ស្តោភៃ lai-laññ" lê]

• ឈើ kâ (PHRASE–) → TOP/SUBJ: topic/subject marker [=WB ឈើ kâ" kâ]

(152) អ្នកអ្នក អ្នកអ្នក អ្នកអ្នក

lañ'.kâ sîy'.e" myâ.kâ hi.e".
husband.SUBJ die.REAL wife.SUBJ live.REAL. 
‘The husband has passed away [but] the wife is living.’ (Inscr. I-79a)

(153) អ្នកអ្នក អ្នកអ្នក អ្នកអ្នក

ly'.nâ.kâ achuy'amluiv' ma.hi'.cvain.te.
this.I.SUBJ relations NEG.exist.can.REAL.
‘I have no family with me.’ (Inscr. II-112)

• ឈើ kuiv' (N–) → OBJ: object/accusative marker [=WB ឈើ kuiv kô]

(154) អ្នកអ្នក អ្នកអ្នក អ្នកអ្នក

sami.miyâ.kuiv'.le.lhû.e" samltKr.kuiv'.le.lhû.e",
daughter.wife.OBJ.also.donate.REAL daughter.big.OBJ.also.donate.REAL

sami.nây'.moñ'ma.kuiv'.le lhû.e'
daughter.young.attendant.female.OBJ.also donate.REAL
‘I donated my daughter, my wife, my older daughter, and my younger daughter.’ 
(Inscr. I-6)

(155) អ្នកអ្នក អ្នកអ្នក អ្នកអ្នក

nâ.lhû.so.miyâ.kuiv' acuira.sate
I.donate.ATTR.land.OBJ possess.REAL. 
‘[He] possesses the land that I dedicated.’ (Inscr. I-31)

(156) អ្នកអ្នក អ្នកអ្នក អ្នកអ្នក អ្នកអ្នក

si.cap'mrân'.cap'so sabbanhannant.purhâ.chu.kuiv'.lvyan' luiv'.sa.te.
know.all.see.all.ATTR omniscience.Buddha.reward.OBJ.EMPH desire.REAL.EUPH
‘I desire the Buddha’s reward of omniscience by which I will understand all matters.’ (Inscr. II-140)
• ဗုဒ္ဓကိုး (N~) → to: indirect object / dative marker [=WB နား kui kó]

(157) နဂေါဆိုတော် ရူးကျော်ကျားလည်း နိုးကျော်ကျားလည်း
ဗုဒ္ဓကိုးကျော်ကျားလည်း
နဂေါမီးသားစေး၊ ကိုးကျော်ကိုးမီးသားစေး၊ မလုံးရှိမီးသားစေး
ဗုဒ္ဓကိုးမီးသားစေး]
NgaPyiThin.PL Lord.Maha.Kassapa.to land.sell.since
‘Nga Pyi Thin and other sold their land to Lord Maha Kassapa.’

• အောင် (N~) → to: indirect object / dative marker [=WB အောင် သား ဇော်]

(158) လှုပ်လှိုင်ကျော်ကျားလည်း မီးသားစေးကျော်ကျားလည်း
ဗုဒ္ဓကိုးကျော်ကျားလည်း
ဖုန်ပြောစေးတယမီးကိုးမီးသားစေး
ဗုဒ္ဓကိုးကျော်ကျားလည်း
this.I.make.ATTR.forest.monastery Buddha.law.monkhood.jewel.three.CLF.ATTR.to

အကြိုက်ဖွဲ့စည်း
akun:နတ်.လှိုင်.e’.
all.I.donate.REAL.
‘This forest monastery I have erected to the Three Gems: the Buddha, the Law and the monkhood.’ (Inscr. I-90)

(159) အီးဗုဒ္ဓကိုးကျားလည်း ကျော်ကျားလည်း
ဗုဒ္ဓကိုးကျားလည်း
အထုတ်ထုတ်စေးအီးကျော်ကျားလည်း
ဗုဒ္ဓကိုးကျားလည်း
special.ATTR.execution.to arrive.all.REAL
‘They were all killed by diverse means of execution.’ (Inscr. II-168)

• ပါလန် (N~) → with N: instrumental marker [=WB ပါလန် ပါးပျဉ်း]

(160) ရှေးဗုဒ္ဓကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း
ဗုဒ္ဓကျော်ကျားလည်း
ရှေးဗုဒ္ဓကျော်ကျားလည်း
ဗုဒ္ဓကျော်ကျားလည်း
gold.ornament.silver.lamps.PL.with worship.SUBORD
‘Making devotional offering with golden and silver lamps.’ (Inscr. I-73)

(161) ဗုဒ္ဓကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း
ဗုဒ္ဓကျော်ကျားလည်း
ဗုဒ္ဓကျော်ကျားလည်း
ဗုဒ္ဓကျော်ကျားလည်း
khyat’sa.myak’ciy:phlan’ rhu.kra:ciy: e’
love.ATTR.eye.with look.PL.CAUS.REAL
‘May they look on with loving eyes.’ (Inscr. II-216)

• နိုင် (N~) → with N: instrumental marker [=WB ဗုဒ္ဓကျားလည်း ဗုဒ္ဓကျားလည်း]

(162) မီးသားစေးကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း ကျော်ကျားလည်း
ဗုဒ္ဓကျော်ကျားလည်း
ဗုဒ္ဓကျားလည်း
ဗုဒ္ဓကျားလည်း
ဗုဒ္ဓကျားလည်း
ဗုဒ္ဓကျားလည်း
mimi.asak’:nha’ni.t’so,  ဗုဒ္ဓကျားလည်း
mim.i.khyat’.ev:so:la’n;  ဗုဒ္ဓကျားလည်း
self.love.very.ATTR.husband
‘My husband whom I love, who to me is [as precious] as my life, as precious as my eyes.’ (Inscr. II-145)
(163)  rethink.cav.iso think.cav.iso
than.rha.cav.so phrac.nh.a.nhain’tic
pratii’c cuniso rahan’.aphiac’
visible.very.ATTR wisdom.with full.ATTR arahan. being
‘With the status of an arahan endowed with conspicuous wisdom.’ (Inscr. II-145)

- ᵃ mha (N-) → from N: source / ablative marker [=WB ᵃ mha ᵃ]

(164) ḍhayaṇa pha.mha lā.so.kyvan’
my.father.from come.ATTR slave
‘Slaves inherited from my father’ (Inscr. II-150)

(165) ḍhayaṇa mya.k’hā.nhā.mha lālā.so.purhā.sakhin’
four.directions.from come.ATTR Buddha.Lord
‘Buddhist priests who came from the four points of the compass.’ (Inscr. III-249)

- e’ (N-) → GEN: from N: genitive / possessive marker [=WB e’ ᵃ]

(166) ḍhayaṇa cav’ cānī’jim’ nat.e’.cānī’jim’ khama.pri.so
human.GEN luxury nat.GEN luxury enjoy.finish.REAL
‘After enjoying the luxurious life of humans and nats.’ (Inscr. I-69)

(167) sakhi’n’c.āmin’ahu.kuiv’ khān.pi’y.tat’.so.sū
Lord.GEN command.OBJ receive.give.usually.ATTR person
‘One who is accustomed to receiving Royal Orders.’ (Inscr. II-143a)

- ści suiv’ (N-) → to N: direction to or towards [=WB ści suiv’ ᵃ]

(168) niy’rabba.n.praṭin’suiv’ rok’.ciy.khlyan.sokron’
Nirvana.land.to arrive.CAUS want.because
‘because I want them to reach Nirvana.’ (Inscr. II-194)

earth.big.swallow.ATTR.state.to arrive.CAUS.REAL
‘May they be swallowed up into the earth.’ (Inscr. II-194)

- ᵃ nhui’k (N-) → in N: location [=WB ᵃ n’hai’k]

(170) mlat’.cav.iso.purhā.sakhai’n’c’ anuphav’.nhui’k’ asak’.rha.nhain’e’.
exalt.ADV.ATTR Buddha.Lord.GEN power.in life.long.REAL
‘He enjoyed long life under the influence of the power of the exalted Buddha.’ (Inscr. I-18)
The structure of Pagan period Burmese 283

(171) kauchin.taw.planin.te.buddhaha.niy.e.nhuik.te. bhat.e'.
Kason.moon.full.Wednesday.day.on release.REAL
'[I] liberated [the slaves] on the full-moon Wednesday of the month of Kason.'
(Inscr. II-138)

• ဗြို ဗြိဒို (N~) → in N: location [=WB ဗြို ဗြိဒို twān' twin]

(172) lū.twān' phun.ma.kri.ciy'.
human.in glory.REAL
'May he not be glorious in the human world' (Inscr. II-144)

(173) this.person.4.CLF.ATTR.TOP Taya Kun Thaya.in ask.BEN.REAL
'[The Judge] inquired about these four people in the Taya Kun Thaya court.'
(Inscr. II-143)

• အိုး (N~) → in N: location [no WB equivalent]

(174) iy.nā.mù.so.alhu.katv'. anuṭāthak'.phyak'chī.so.sū.kā [-]
this.I.do.ATTR.donation.OBJ by force.destroy.ATTR.person.TOP [-]

iy.nāy'.kr.8.pā.so.ā kyak'.cīy'.kun'.sate
this.hell.big.8.CLF.ATTR.in cook.REAL.REAL
'May those who destroy my donation with force all be boiled in the
Eight Tiers of Hell.' (Inscr. II-143)

• ဆးး lyhan' (N~) → in N: location [no WB equivalent]

(175) avacy'.athāy'.nāy'.lyhan' kyak'.cīy'.sate
Avici.inside.hell.in cook.REAL.REAL
'May [he] be boiled the hell of Avici.' (Inscr. I-68)

(176) sakā.nāy'.lyhan' tan'tuiti.tan'.e'
Friday.day.on wall.erect.REAL
'This wall was built on Friday.' (Inscr. I-105a)
• ODOH thak' (N-) → more than N: comparative marker [=WB OODH thak' thv]

(177) lû. phlac'.ka lû. takâ.thak' mlat'.so khoar.sâ
human.be.if person.all more than excellent.ATTR.happiness
‘If I be human, [may I have] happiness more excellent than other humans.’
(Inscr. II-181)

(178) atuiv'kyvan tuiv'.niy'.so.thak'.kâ saânkhâ.niy'.so.mlat'.e'.
we.live.NOM more than.SUBJ monkhood.live.NOM honourable.REAL
‘The place the sangha live in is more exalted than the place we live in.’ (Inscr. I-6)

• 597 le-lañi also (N-) → also, and, both...and [=WB 597 lâi-lâñi" lê]

(179) rhuy'.thi.le.choi'.e', rhuy'.pan'lañi.le.plu.e'.
gold.umbrella.also hold.REAL, gold.throne.also make.REAL
‘[I] brought a both golden umbrella and made a golden throne.’ (Inscr. I-6)

(180) nvâ.le.lhù.e', chit'.le.lhù.e'.
ox.also donate.REAL, goat.also donate.REAL
‘[I] donated both an ox and a goat.’ (Inscr. III-235)

(181) kan'.le.ta'.khu'.tù.e'.
pond.also one.CLF.dig.REAL.
‘[I] also dug a pond.’ (Inscr. III-303)

5 Sentence-final verb particles

Sentence-final verbs in affirmative sentences in the Pagan inscriptions could be marked with a range of particles showing tense and aspect, shown in the examples sentences that follow. While assigning glosses to e and an is relatively straightforward, glossing so, sote and sate when they occur as sentence-final verbal markers is more problematic. As mentioned above, attributive clause marker so could be used to complete finite sentence-final verb clauses, which were identical in form to relative clauses. It could be reduced in form to so, and was frequently combined with the euphonic particle te. The grammaticalisation and diachronic development of these markers is discussed further by Yanson (this volume).

• sate (V-) → REAL.EUPH: realis and euphonic marker V-s, V-ed [=WB satañi' thv].
(182) နိုင်ငံကျင်း ဝါကျင်းသည့် ကျင်းစောင်မြင့်
နှိုင်း ဆိုးအကြွ လှုံစေသည်
this.also monkhood.to donate.REAL.EUPH
'I donated that also to the monkhood.' (Inscr. II-162)

(183) ပြိုင်ပွဲကျင်း ဝါကျင်းသည့် ကျင်းစောင်မြင့်
ဗုဒ္ဓရုပ်ဦး စာကြောင်း ဆိုးအကြွ 
destroy.remain.ATTR people.TOP punishment.4.CLF.in cook.CAUS.REAL.EUPH
'May they who destroy be cooked in the Four States of Hell.' (Inscr. I-99)

• စတင် so (V~) → REALIS: V-s, V-ed [=WB စတင် satann သစည်] – see (40), (109), (110)

• စတင် sote (V~) → REAL.EUPH: realis and euphonic marker V-s, V-ed [=WB စတင် satann သစည်]

(184) မုဒ်မ့်းသည့် ကျင်းစောင်မြင့်
မုကျည်များ ကျင်းစောင်မြင့်
grass.tender.water.clear exist.place go.CAUS.REAL.EUPH
'May they go to where there is tender grass and clear water.' (Inscr. III-261a)

• လက်သီ lat'arn (V~) → EUPH/IRR: euphonic + future/irrealis [=WB လက်သီ lattam la'itən]

(185) လက်သီကျင်းစောင်မြင့်
lā.lat'arn.so.purhā
come.EUPH/IRR.ATTR.Buddha
'The Buddha who will appear.' (Inscr. I-68)

(186) နိုင်ငံကျင်းစောင်မြင့် ကျင်းစောင်မြင့်
နိုင်ငံကျင်းစောင်မြင့်
future.come.IRR.ATTR king.all
'All the kings who will come in the future.' (Inscr. I-21)

• အရ in (V~) → IRR: irrealis marker; will/would V [=WB အရ in သမ]
(189) [I] shall establish the teaching of the Buddha at three locations.' (Inscr. II-147)

(190) ‘If you assign Shin Disapramok, he will carry out the task successfully.’ (Inscr. III-271)

(191) ‘Before his entering the state of nirvana, the holy Buddha summoned Thagyamin and commanded him, saying that the monk Mahinda, the son of King Sri Dhamma, would remain and propagate the doctrine in Sri Lanka. Entrusting him with the task, he said “You must take care of it”…’ (Inscr. III-250)

- $e^-$ (V-) → REALIS: V-s, V-ed [=WB $e^-$]
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I built five schools [for Buddhist study].' (Inscr. III-254b)

'I wrote an inscription.' (Inscr. I-6)

King Uzana ascended the throne.' (Inscr. I-36)

6 Other verb particles

Below, more examples from the inscriptions illustrate grammatical forms associated with verbs presented in this paper. Further example sentences and a list of all the grammatical forms discussed in this paper are given at the end.

• omission of sentence-final verb particle → indicates an order; imperative [= WB]

Go in after the harvest is finished.' (Inscr. III-271)

'Make inquiries for me in detail about these three people.' (Inscr. I-74)

• kun' (V~) → all V, each V [=WB kun' kōun]

Princes, ministers and wealthy people all celebrated the glory [of my donation].'

(200) lū. prittā. lyvaṅ’ phlac. ciy’. kun. sate.
human. ghoul. EMPH be. CAUS. eventually. REAL

- kra (V~) → PL: plural; V has plural subject [=WB kra teגד]

(201) aporn’ kyvan’. 30 muy’. kra. pri. so. te
total. slave. 30 keep. PL. PERF. ATTR. EUPH
‘They look after a total of thirty slaves.’ (Inscr. 1-77)

- ә ~ ә ~ ә kha ~ ә kha ~ khay’ (V~) → REM: remote past, remote place [=WB ә kha’ kхә]

(202) klok’. cā. riy’. khā. so
stone. writing. write. REM. ATTR
‘[I] wrote an inscription.’ (Inscr. 1-21)

(203) atuiv’ kyan’. pyak’ ci. chan’ iray’. kha. e’
I ruined. poor. REM. REAL
‘I was bankrupted and became poor.’ (Inscr. 1-79a)

(204) i. kyan’. 2. yok’. sā. kā nā. sakhan’ nā. lā. kha. e’
this. slave. 2. CLF. only. TOP my. lord I. donate. REM. REAL
‘I donated these two slaves to my Lord.’ (Inscr. IV-378a)

(205) amuyu’ tu’ cā. tuiv’. kuiv’ evan’. kha. r’ y’ svā. kha. svā. e’
parents. possessions. PL. OBJ abandon. REM. SUBORD go. REM. go. REAL
‘My parents abandoned their legacy and passed away.’ (Inscr. III-272)

(206) sā. mīy’. khac. kuiv’ piy’. khay’
son. grandson. love. OBJ give. REM
‘Give your beloved son and grandson.’ (Inscr. IV-381)

(207) ra. khai. cvā. so. ratañ. suṁ. pā
obtain. difficult. very. ATTR. jewel. three. CLF
‘The Three Gems which are very hard to obtain.’ (Inscr. 1-69)
khlān’ (V~) → desire, want to V [=WB ꦪ khyaṅʻ teʰɪn]

eat.want.wear.want.while.ATTR human.ghoul.EMPH be.CAUS/IRR.REAL
‘May they be human ghouls who perpetually want to eat and drink.’ (Inscr. IV-416a)

samsara.hell.from.release.place be.ATTR.nirvana reward.OBJ.want.want.REAL
‘[I] desire the reward of nirvana, which is the state of release from the cycle of 
rebirth.’ (Inscr. IV-413)

ciy’ (V~) → CAUS: cause to V; may V happen; causative/exhortative marker often 
used in orders and commands [=WB ꦪ ce sè]

(210) this.hell.big.8.CLF.in cook.CAUS.all.REAL
‘May they all be boiled in the Eight Tiers of Hell.’ (Inscr. I-51)

(211) lyvaṅ’.ta.laṅ.thvāk’.lyak’ khar.ce.sate. 
tongue.one/lan.protrude.while suffer.CAUS.REAL
‘May [they] suffer [the punishment of] their tongues protruding one lan (six feet).’ 
(Inscr. I-69)

(212) kyvan’.73.yok’.sakā [-] l.purḥā.4.chū.so.kuiv’ lūp’.kīvaṅ’.ciy’ 
slave.73.CLF.ATTR.TOP [-] this.Buddha.4.CLF.ATTR.OBJ make.feed.CAUS
‘May 73 slaves take care of these four Buddhas.’ (Inscr. II-130)

(213) this.pagoda.4.CLF.ATTR.OBJ look after.CAUS.QUOT donate.REAL
‘(I) donated (servants) to look after these four pagodas.’ (Inscr. II-130)

(214) Pitaka gold.cave-temple.in place.EUPH.CAUS.QUOT decree.because
‘(The King) issued a decree to preserve the Buddhist scriptures in the golden 
cave-temple.’ (Inscr. I-98)
(215) Shathuland, Thikyi.land.OBJ.TOP tax NEG.request.CAUS
‘Do not levy tax on the lands owned by Shathu and Thikyi.’ (Inscr. II-96)

(216) Nirvana.named.ATTR NEG.die.country enter.CAUS.REAL
‘May they be able to enter the immortal world called Nirvana.’ (Inscr. II-202)

(217) I.do.ATTR good deed.OBJ violate.ATTR destroy.ATTR person.TOP
‘May they suffer underground in the hell of Avici if they trespass upon and destroy my meritorious deeds.’ (Inscr. II-153a)

(218) ‘May he be separated from his beloved wife and beloved son.’ (Inscr. II-153a)

(219) ‘Whoever would destroy my donation, may he be without fur if an animal and without scales if a fish.’ (Aung Thaw 1972–1983: vol. ii, p.46)

- *carī (V~) → enjoy V-ing

(220) ‘May [they] enjoy benefits comparable to those I enjoyed from my meritorious act of donation.’ (Inscr. I-144)
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- ꞗ cvam (V-) → can V [= WB ꞗ cvam"swán]

(221) ဗားကွဲ ဗားကွဲ ဗားကွဲ ဗားကွဲ
ná.kák.achuy'amluiv. ma.hiy.cvam.te.
I.TOP relatives NEG.exist.can.REAL
'I have no possibility of having any family.' (Inscr. II-111)

(222) ။ဗားကွဲ ဗားကွဲ ဗားကွဲ ဗားကွဲ
thān.phuiv'.lyvā.phuiv'. ma.kron'kra.ciy'.cvam.te.
fuel.price.tongue.price NEG.worry.CAU. can.REAL
'They have no need to worry about the price of fuel or food.' (Inscr. III-275)

(223) ဗားကွဲ ဗားကွဲ ဗားကွဲ ဗားကွဲ
ly'.purhā.kyvan'.kuiv'. ma.cuiv'.pā.cvam.te.
this.Buddha.slave.OBJ NEG.own.POL. can.REAL
'[They] will be unable to own this pagoda slave.' (Inscr. II-182a)

(224) ဗားကွဲ ဗားကွဲ ဗားကွဲ ဗားကွဲ
my.son, my.grandson, my.relative.PL.TOP NEG.enter.POL.CAUS.can.REAL
'May none of my sons, grandsons or relatives be permitted to enter.' (Inscr. II-132a)

(225) ။ဗားကွဲ ဗားကွဲ ဗားကွဲ ဗားကွဲ
phurhā.aphlac'phlac: le ma.phū.cvam.te
Buddha.state.be.also NEG.worship.CAU. can.REAL
'Buddha after Buddha, may he be unable to worship them.' (Inscr. I-101)

- ဉာဏာ tat' (V-) → can V; usually V-s [= WB ဉာဏာ tat' ta?]

(226) ဉာဏာ ဉာဏာ ဉာဏာ ဉာဏာ
ly'.ratanā.3.pā.so.kuiv'. lup'.kivaňn'. tat'.so.sū
this.jewel.3.CLF.ATTR.OBJ do.feed.can.ATTR.person
'He who can take care of the Three Gems.' (Inscr. II-143a)

(227) ဉာဏာ ဉာဏာ ဉာဏာ ဉာဏာ
sū.tathū.kuiv'.ňhan'.chay'.tat'.so. ma.lvat'.tat'.sa.prittā.
person.other.OBJ.torture.can.ATTR. NEG.release.can.ATTR.ghoul
'A ghoul who (habitually) tortures others and cannot be released.' (Inscr. II-216)

- ဉာဏာ ꞗ to' mù (V-) → HON: honorific construction; lit: ['honoured-V] do-' [= WB ဉာဏာ ꞗ to' mù to mú]

(228) ဉာဏာ ဉာဏာ ဉာဏာ ဉာဏာ
main'.kri.le.lā.tāv' mu.pā.ruy'. tyrā.le.nā.tāv' mù.pā.e'
king.big.also.com.e.HON.POL.SUBORD doctrine.also.listen.HON.POL.REAL
'The King came and listened to the doctrine.' (Inscr. IV-390)
The King resides in Hlegya, west of Pyay.' (Inscr. III-271)

'Our Lord, King Kingathu, has passed away.' (Inscr. II-143a)

'The King again issued an order.' (Inscr. I-3)

'[The King] again donated three hundred pay of fields and a garden.' (Inscr. III-235)
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especially wonderful relics [of the Buddha].’ (Inscr. IV-390)

(237) The King who is revered by all the people.’ (Inscr. III-247)

(238) ‘The King of the doctrine who is more noble that all other men.’ (Inscr. IV-398)

• नुयन (V~) → can V [=WB नुयन नाई]

(239) ‘May [they] all be human ghouls who cannot be set free.’ (Inscr. I-64)

• ओपा (V~) → POL: polite [=WB ओ पा पा]

(240) ‘All these people knew and looked on [as witnesses].’ (Inscr. II-130)

• फु फु (V~) → EXP: experiential; has (ever) V-ed [=WB फु फु पु]

(241) ‘I have also built a resthouse.’ (Inscr. IV-372)

(242) ‘I have also placed a stupa finial.’ (Inscr. IV-372)

(243) ‘I have also made three Buddha images.’ (Archaeological 1972 I-19)
OHNO Toru

(244) "[He] stated that he had never written thus." (Inscr. I-78b)

- ပြောနေ (V~) → EUPH: euphonic [= WB ပြောနေ ပျော]

(245) '[He] built a stone pillar.' (Forchhammer 1892:282)

(246) '[He] bought it for a price of one thousand in silver.' (Forchhammer 1892:281)

(247) '[I] also repaid the debt which I owed.' (Inscr. I-79a)

- ပါး (V~) → PERF: perfective aspect; completed verb action [= WB ပါး]

(249) '[The King] has passed away.' (Inscr. II-143a)

(250) ‘When I had completed the temple I made a Buddha image’ (Inscr. I-17)

- ပထမး (V~) → EMPH: emphatic [= WB ပထမး]
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(251) puthuiv. tav. kuiv'. thū. bhi. liy'. e'.
stupa.HON.OBJ donate.EMPH.EUPH.REAL
'I also donated a pagoda.' (Inscr. II-163)

- q'ra (V~) → compulsion, opportunity; must V, can V [=WB q'ra ja]

(252) nīrālamuni. ron'. ruy'
vay'. ra. so. mliy',
younger brother.all.sell.SUBORD buy.can.ATTR.land
'The land which I was able to buy, having sold everything to my brother.'
(Inscr. III-229)

(253) min'. tav'. mū. piy'. rakā'
pukain. niy'. ra. e'.
order.HON.give.since Pagan.live.can.REAL
'Since [the King] had sanctioned it, he was permitted to reside in Pagan.'
(Inscr. III-234)

- q' rac' (V~) → remain and V [=WB q' rac' ji?]

(254) li'. nā. hub. so. lai. kā
sāsanā. 5000. lyhān'
tanh'. rac'. cim'. sate
this.l.donate.ATTR.field.TOP sāsanā. 5000. EMPH establish.remain. CAUS/IRR.REAL
'May the field which I donated cause the teachings of the Buddha to be preserved for five thousand years.'
(Inscr. I-90)

(255) li'. myha. so. stū. tuiv'
riy'. rac'. so.
this.extent.ATTR.person.PL write.remain.ATTR
'This number of them left their writings.' (Inscr. I-4)

- q' ryā (V~) → ought to V; must V [=WB q' ra ja; see Okell and Allott (2001:182 'q' 6')]

(256) samā
samā ku. ruy'
physician cure.SUBORD NEG.can.can.ATTR disease.danger
'A disease which physicians cannot cure.' (Inscr. II-144)

(257) tuin'kā. tan'man'. kui
country.envoy.OBJ NEG.determinate.should
'The envoy sent from another country should not be detained.' (Inscr. III-271)
• ကြည် liy' (V~) → EUPH: euphonic [=WB ကြည် le လे]

(258) နာဂိုရိယာတို့သို့မဟုတ်ကျောင်းကြည် နာဂိုရိယာတို့သို့မဟုတ်ကျောင်းကြည် နာဂိုရိယာတို့သို့မဟုတ်ကျောင်း

ruby', ku. tvan'. thā. liy'. e'

gold.cave.in.place.EUPH.REAL

'(He) placed it in a golden cave-shrine.' (Inscr. I-98)

(259) နိုင်ငံမြို့များကိုသို့မဟုတ်ကျောင်းကြည် နိုင်ငံမြို့များကိုသို့မဟုတ်ကျောင်းကြည် နိုင်ငံမြို့များကိုသို့မဟုတ်ကျောင်း

mrān'mū. lm'. là. r*

Myinmu.house.comme.SUBORD me.order.EUPH.REAL

'[He] came to my house in Myinmu and gave me orders.' (Inscr. I-78b)

• ကြည် ~ ကြည် le ~ liy' (V~) with no sentence-final verb marker → IMP: imperative marker [=WB ကြည် le လे]

(260) ကြည်ပြော le cuik'. liy'

paddy.beans.also grow.IMP

'Plant rice and other things.' (Inscr. III-271)

• ကြည် ~ ကြည် lo'~lav'(V~) → IMP: imperative marker [=WB ကြည် lo' လွ]

(261) ကြည်တားခိုကောက်းကိုးကျက်ကြည်ကြည်ကြည်

klacv. main' cat'. lav' hu. r*

Kyaswa.king divide.IMP say.SUBORD

'King Kyaswa said: 'Divide (it), and...'' (Inscr. III-231)

• ကြည် luiv' (V~) → want to V [=WB ကြည် luiv' လွ]

(262) ကြည်နေရာကျောင်းတွေကြည်

niy'raban'. chu. ra. luiv'. sate.

nirvana.reward.obtain.want.REAL

'[I] want to obtain the reward of nirvana.' (Inscr. II-130)

(263) ကြည်နေရာကျောင်းတွေကြည်

chuiv'iray'. so.a phlac'. laññ' ma. phlac'. luiv'.

poverty.ATTR.state.also NEG.be.want

'[I] do not desire to be in a state of poverty.' (Inscr. II-130)

(264) ကြည်နေရာကျောင်းတွေကြည်

niā. mú. so.a klauiv'. ka niā. luiv'. sa.chu plaññ'. lui. sate.

I.do.ATTR.benefit.TOP I.want.ATTR.reward fulfil.want.REAL

'Concerning the benefit of my donation, I want the reward I long for to be fulfilled.' (Inscr. I-182a)

• ကြည် luik' (V~) → 'just V', 'V thoroughly, decisively' [=WB ကြည် luik' lai?]
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(265) နားထောင်ခြင်းကို မိသားစုများသည် နားထောင်ခြင်းကို မိသားစုများသည်
rhuy'.tan'chon'.ruy'.tan'chon'.tuiv".phla'"  pujav'.ruy" than'".luik'.'e" gold.ornament.silver.ornament.PL.with devote.SUBORD insert.just.REAL
'I worshipped with gold and silver ornaments, and enshrined them.' (Inscr. II-80)

- ကျော်ကူး lai'(V~) → IMP: imperative marker [=WB ကျော် lai' lín]

(266) အပြိုင်နှစ်ထောင်ခြင်း
apuin'akhrá.tuin' chok'.piy'.lai'.
boundary.pillar build.BEN.IMP
'Erect a boundary pillar.' (Inscr. III-296)

(267) ကျော်ကူး lai' အပြိုင်နှစ်ထောင်ခြင်း sakhi'n.tuiv' aluív'.ra.lai'.hu lhù.to' mú.tuin.raká
Lord.PL desire.obtain.IMP.QUOT donate.HON.again.because
'Because the King again made offerings, saying “Masters, take what you need...”' (Inscr. II-203)

(268) ကျော်ကူး lai'
saikhá.thá.lai'.hu min'.tâv' mú.'e'.
monkhood.place.order.QUOT order.HON.REAL
'[The King] gave orders, saying “Place the monks here.”' (Inscr. IV-401)

- ကျော်ကူး lvay'(V~) → easy to V [=WB ကျော် lvay' lwè]

(269) ကျော်ကူး lai'
roh'.ray'.lvay'.so.
contented.easy.ATTR
'[It is] easy to be contented.' (Inscr. II-216)

- ကျော်ကူး lyhain'(PHRASE~) → EMPH: emphatic [=WB ကျော် lyhain' tajin]

(270) ကျော်ကူး lai'
nibban'.khyarinsá.a rok'.ce.lyhain'.te.
nirvana.happiness.to arrive.CAUS.EMPH.REAL
'May [they] reach the happy state of nirvana.' (Inscr. II-162)

(271) ကျော်ကူး lai'
tuin'.chok'.paliy'.hu.so thuy'tav'.ra.lyhain'.sate.
pillar.erect.command.QUOT.ATTR royal order.obtain.EMPH.REAL
'[I] received a royal order to erect a pillar.' (Inscr. III-268)

- ကျော်ကူး vam"(V~) → dare to V [=WB ကျော် vam" wûn]
• မောင်စောတွင် (V~) → be feasible to V [=WB ဝါစို သူ]

(273) philu.sat'.ruy' ma.lvat'.tāt'.sā
ogre.kill.SUBORD NEG.release.can.feasible
‘[He] was killed by an ogre and cannot possibly be liberated.’
(Pe Maung Tin 1928:7)

• ယူ စော (V~) → yet/still V [=WB ဝါစို သူ]

(274) miy'.kr.athay'.irray' [-] kyak'.ciy'.siy'.sa.te
earth.big.inside.hell [-] cook.CAUS.still.REALEUPH
‘May he still be boiled in the hell inside the earth.’ (Inscr. II-202)

• မိုးပါးမှာ (V~) → should V, ought to V [=WB ဝါစို သူ]

(275) my.husband Pagan.only live.can.CAUS.EXCL.still
‘My husband was allowed to live only in Pagan.’ (Inscr. III-234)

• အင်အားကျ (V~) → should V, ought to V [=WB ဝါစို သူ]

(276) nā.ma.ca ra.siy' hu min'.kha rakā
I.NEG.eat.can.still.QUOT order.REM.because
‘Since [the King] stated “I have not yet eaten”…’ (Inscr. III-268)

• ပုံစံအတွင်း (V~) → be free to V [=WB ဝါစို သူ]

(277) this.slave.PL.OBJ Dhanapati NEG.take.should.QUOT.SUBORD
‘Saying that Dhanapati should not take these slaves…’ (Inscr. I-77)

• အနီအောင် (V~) → be free to V [=WB ဝါစို သူ]

(278) amin'.ma.hi.ā.hu min'e'
order.NEG.issue.EXCL.QUOT state.REAL
‘[The King] said that he did not issue an order.’ (Inscr. I-79b)
• ဗာ (V-) → V further, more; go on and V [=WB ဗာ ဗာ] ဗာ

(279) ကြက်ကျင် ကျင်ကျင် ကျင်ကျင်ကျင်

nā.kā  kok'pai  cuik.liy'.uai.ān.

I.TOP crops  plant.EUPH.yet.IRR

'I will plant crops and paddy henceforth.' (Inscr. II-168)

(280) ကြက်ကျင် ကျင်ကျင်ကျင်

4.pai  lhū.uai.ān.

four.pai  donate.yet.IRR

'[I] will donate four pay [of land] henceforth.' (Inscr. V-591b)

• အီတွဲ  apt (V-) → ought to V [=WB အီတွဲ အီတွဲ]

(281) မိသားစု မိသားစု

nātho'ni'.ruy'  nā.ap'.e°

listen.SUBORD obey.should.REAL

'[You] ought to listen and obey.' (Inscr. II-168)

(282) မိသားစု မိသားစု

miy'.ap'.e°.hū  ciy'.e°

ask.should.REAL.QUOT  send.REAL

'[He] enquired, saying that he ought to send [a messenger].' (Inscr. II-168)

7 Additional examples

(283) မိသားစု မိသားစု မိသားစု

atūiv'kyan'.phakrī.kā  atūiv'kyan'.pha.kuiv'  piy'.e°

my.uncle.SUBJ  my.father.to  give.REAL

'My uncle gave [it] to my father.' (Inscr. II-174)

(284) မိသားစု မိသားစု မိသားစု

luearac'.so.sū.kā  avicīy'.athay'.lhyaṅ'  kla.ci.y'.sate.

plunder.ATTR.person.SUBJ  Avici.inside.in  fall.CAUS.REAL

'May the person who plunders fall into the hell of Avici.' (Inscr. II-174)

(285) မိသားစု မိသားစု မိသားစု

koin'bhū.kuiv'  mú.luiv'.so.sa.kā  koin'bhū.kuiv'  mú.ra.ci.y'.e°

act.of merit.OBJ  do.want.ATTR.NOM.TOP  act.of merit.OBJ  do.can.CAUS.REAL

'May those who wish to perform acts of merit be able to do so.' (Inscr. II-216)

(286) မိသားစု မိသားစု မိသားစု

Lpur'ha.4.chi.so.kuiv'  lup'klyan'.ciy'.hu  lhū.sate.

this.Buddha.4.CLF.ATTR.OBJ  care for.CAUS.PURP  donate.REAL

'I made this donation so that they may look after these four Buddha statues.' (Inscr. II-130)
(287) \[\text{atainn}.\text{may}^\text{e}.\text{so}.\text{taryä}.\text{kuiv}^\text{e}.\text{thir}^\text{e}.\text{lat}^\text{e}.\text{ruy}^\text{e}.\text{.stability}.\text{.lack}.\text{.ATTR}.\text{.law}.\text{.OBJ} \text{.terrify}.\text{.EUPH}.\text{.SUBORD}

'He is terrified with the doctrine to the effect that nothing is stable.' (Inscr. I-143)

(288) \[\text{mimi}.\text{lan}^\text{e}.\text{nat}^\text{e}.\text{valà}.\text{.so}.\text{.man}^\text{e}.\text{.kuiv}^\text{e}.\text{.le} \text{.mlat}^\text{e}.\text{nuiv}^\text{e}.\text{.cvà} \text{.phlac}^\text{e}.\text{.r}^\text{.\text{.self}}.\text{.husband}.\text{.heaven}.\text{.go}.\text{.ATTR}.\text{.king}.\text{.OBJ}.\text{.also} \text{.revere}.\text{.ADV} \text{.be}.\text{.SUBORD}

'In reverence for my husband the king who passed away...' (Inscr. I-143)

(289) \[\text{atuiv}^\text{e}.\text{.sakhin}^\text{e}.\text{.man}^\text{e}.\text{.kinkä}.\text{.sù}.\text{.kuiv}^\text{e}.\text{.purhà}.\text{.lon}^\text{e}.\text{.klacvà}.\text{.man}^\text{e}.\text{.pty}^\text{e}.\text{.tav}^\text{e}.\text{.mù}.\text{.so} \text{.stability}.\text{.lack}.\text{.ATTR}.\text{.law}.\text{.OBJ} \text{.Buddha}.\text{.future}.\text{.KyaSwa}.\text{.king} \text{.give}.\text{.HON}.\text{.REAL}

'The future Buddha, King Kyaswa, gave [it] to my Lord, Kingathu.' (Inscr. I-143)

(290) \[\text{am}.\text{.mha} \text{.lå}.\text{.so}.\text{.kyvan}.\text{.26} \text{.mother}.\text{.from} \text{.come}.\text{.ATTR}.\text{.slave}.\text{.26}

'Twenty-six slaves inherited from my mother' (Inscr. II-212)

(291) \[\text{amipurhà}.\text{.càv}^\text{e}.\text{.sànî}^\text{e}.\text{.sàn}^\text{e}.\text{.sàrav}.\text{.irày}.\text{.mha} \text{.mlók}.\text{.kuiv}^\text{e}.\text{.so} \text{.sònì}^\text{e}.\text{.Queen.Saw}.\text{.NOM} \text{.samsara}.\text{.suffering}.\text{.from} \text{.free}.\text{.want}.\text{.since}

'Since Queen Saw wants to be free from the cycle of rebirth.' (Inscr. II-138)

(292) \[\text{tica}^\text{e}.\text{.phan}^\text{e}.\text{.mlì}^\text{e}.\text{.ron}.\text{.lhd}.\text{.tun}.\text{.rakà}, \text{.again} \text{.land} \text{.sell}.\text{.come}.\text{.again}.\text{.because}

'Since he again came and sold land...' (Inscr. II-162)

(293) \[\text{miteñî}.\text{.mañî}.\text{.so}.\text{.phurà} \text{.phlac}^\text{e}.\text{.lac}.\text{.so}.\text{.khà} \text{.phlac}^\text{e}.\text{.pà}.\text{.khìà}.\text{.sate}.\text{.Maitreya}.\text{.name}.\text{.ATTR}.\text{.Buddha} \text{.be}.\text{.?EUPH}.\text{.ATTR}.\text{.time} \text{.be}.\text{.include}.\text{.want}.\text{.REAL}

'[I] want to be alive when the Buddha Maitreya reaches enlightenment.' (Inscr. IV-401)

(294) \[\text{my}.\text{.house}.\text{.in}.\text{.come}.\text{.EUPH}.\text{.SUBORD} \text{.order}.\text{.come}.\text{.REAL}

'He] came to my house and gave orders.' (Inscr. I-74)

(295) \[\text{atainn}.\text{.may}^\text{e}.\text{.so}.\text{.taryà}.\text{.kuiv}^\text{e}.\text{.thir}^\text{e}.\text{.lat}^\text{e}.\text{.ruy}^\text{e}.\text{.stability}.\text{.without}.\text{.ATTR}.\text{.nature}.\text{.OBJ} \text{.fear}.\text{.EUPH}.\text{.SUBORD}

'Being terrified by the instability of nature...' (Inscr. II-143a)
8 Conclusion

It seems reasonable to assert that the general structure of Burmese in the Pagan period was not fundamentally different from that of contemporary Burmese. Apart from the difficulty of deciphering the script, it is not difficult to access the content of Burmese inscriptions. They provide us a great deal of material concerning the phonology and grammar of Burmese at that time.

Phonologically, it is argued that Pagan period Burmese contrasted voiceless unaspirated and voiceless aspirated series of obstruents: labial, dental, and velar stops and palatal affricates. Judging from the orthography, it is apparent that Pagan period Burmese had a series of consonant clusters comprising velar and labial stops combined with liquids: kr, khr, pr, phr, mr and kl, khl, pl, phl, ml. The vowels were a i u e o; the diphthongs seem to have been ai and ui. It is uncertain what the sound the spelling iy represented. It is generally agreed that three tones were distinguished.

Affirmative sentences were composed of four types: subject–complement, subject–predicate, subject–object–predicate and object–subject–predicate. Negative sentences were formed by prefixing a negative particle ma to the Verb. Imperative sentences contained a verb with no particle attached. Several particles could however be suffixed to verbs: dhe in interrogative sentences with question words, and lo in interrogative sentences expecting the answer yes or no. Besides these, verbs were modified by a number of other verb particles. Pagan period Burmese made use of postpositions, some with case-marking functions.

9 Index of grammatical forms


∽ ∼ kā (V~) → PL: plural; V has plural subject [=WB ∼ kā teə]. (161)(201)


∽ ∼ khai (V~) → difficult to V [=WB ∼ khai k̤]. (85)(105)(207)

∽ ∼ klań' (V~) → desire, want to V [=WB ∼ klań t̤h]. (44)(90)(92)(100)(141) (145)(168)(208)(209)(293)
\( \text{cain} \) (V- \( \rightarrow \) enjoy Ving \( \Rightarrow \) \text{enjoy} \text{Ving} \).

\( \text{cin} \rightarrow \text{CAUS/IRR: conflation of causative} \text{ce sè + irrealis} \text{arin} \) \text{\`will cause to V} \( \Rightarrow \text{will cause to V} \).

\( \text{cin} \rightarrow \text{PURP: in order that it may cause to V} \( \Rightarrow \text{in order that it may cause to V} \).

\( \text{civ} \rightarrow \text{CAUS: cause to V; may V happen; causative/exhortative marker often used in orders and commands} \).\( \Rightarrow \text{cause to V; may V happen; causative/exhortative marker often used in orders and commands} \).

\( \text{civ} \rightarrow \text{ADV: adverb-forming suffix; V-Iy} \( \Rightarrow \text{adverb-forming suffix; V-Iy} \).

\( \text{civ} \rightarrow \text{intensifier: very V} \).\( \Rightarrow \text{very V} \).

\( \text{civ} \rightarrow \text{EXCL: exclamation} \).\( \Rightarrow \text{exclamation} \).

\( \text{civ} \rightarrow \text{HON: honorific; 'honoured N'} \).\( \Rightarrow \text{honoured N} \).

\( \text{civ} \rightarrow \text{HON: honorific construction; lit: 'perform an honoured V'} \).\( \Rightarrow \text{perform an honoured V} \).

\( \text{civ} \rightarrow \text{EUPH: euphonic} \).\( \Rightarrow \text{euphonic} \).

\( \text{civ} \rightarrow \text{PL: noun plural marker} \).\( \Rightarrow \text{noun plural marker} \).

\( \text{civ} \rightarrow \text{V again} \).\( \Rightarrow \text{V again} \).

\( \text{civ} \rightarrow \text{locative: 'in'} \).\( \Rightarrow \text{in} \).

\( \text{civ} \rightarrow \text{more-than: used in comparative constructions} \).\( \Rightarrow \text{more-than: used in comparative constructions} \).

\( \text{civ} \rightarrow \text{that N} \).\( \Rightarrow \text{that N} \).

\( \text{cin} \rightarrow \text{PHRASE -} \rightarrow \text{EXCL: exclamation} \).\( \Rightarrow \text{exclamation} \).

\( \text{cin} \rightarrow \text{HON: honorific; 'honoured N'} \).\( \Rightarrow \text{honoured N} \).

\( \text{cin} \rightarrow \text{HON: honorific construction; lit: 'perform an honoured V'} \).\( \Rightarrow \text{perform an honoured V} \).

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\( \text{cin} \rightarrow \text{that N} \).\( \Rightarrow \text{that N} \).
The structure of Pagan period Burmese

\[ \text{\textbf{\textit{nuin'}} (V-)} \rightarrow \text{can V} \]  
\[ \text{\textbf{\textit{nhe}} (Stce-)} \rightarrow \text{Q-WH: WH-question particle} \]
\[ \text{\textbf{\textit{nhuik'}} (N-)} \rightarrow \text{locative: 'in'} \]
\[ \text{\textbf{\textit{nhai'}} (N-)} \rightarrow \text{instrumental: 'with'; 'and'} \]

\[ \text{\textbf{\textit{pā}} (V-)} \rightarrow \text{POL: polite} \]
\[ \text{\textbf{\textit{piy'}} (V-)} \rightarrow \text{EUPH: euphonic} \]
\[ \text{\textbf{\textit{pri'}} (V-)} \rightarrow \text{SUBORD: subordinate clause marker; V and...; V and therefore...} \]

\[ \text{\textbf{\textit{bhi}} (V-)} \rightarrow \text{EMPH: emphatic} \]

\[ \text{\textbf{\textit{ra}} (V-)} \rightarrow \text{compulsion, opportunity; must V, can V, get to V} \]

\[ \text{\textbf{\textit{rakā}} (V-)} \rightarrow \text{since/because V} \]

\[ \text{\textbf{\textit{rac'}} (V-)} \rightarrow \text{remain and V} \]

\[ \text{\textbf{\textit{mukā}} (PHRASE-)} \rightarrow \text{'if'} \]
ryā (V~) → ought to V; must V [=WB ər̥ rā jà; see Okell and Allott (2001:182 ‘ər̥ 6’)].
  e.g. (256)(257)
lo / le / lanñ (N~) → also [=WB əgə lanñ le]. e.g. (179)–(180)
le ~ le ~ liy' (V~) with no verb-final sentence marker → IMP: imperative marker
  [=WB əgə le le]. e.g. (260)
lo (Stce~) → Q-?: yes–no question particle [=WB əgə lo ló]. e.g. (56)–(59)
lo ~ lo~lav' (V~) → IMP: imperative marker [=WB əgə lo lo]. e.g. (261)
luik' (V~) → ‘just V’, ‘V thoroughly, decisively’ [=WB əgə luik' lai?]. e.g. (265)
lan' (V~) → IMP: imperative marker [=WB əgə lan' lîN] (266)(267)(268)
lat' (V~) → EUPH: euphonic [=WB əgə lat' lai?]. (294)(295)(287)
lat' (V~) → EUPH: euphonic + future/irrealis [=WB əgə latarñ la?tañ].
  e.g. (185)(186)
liy' (V~) → EUPH: euphonic [=WB əgə le le]. e.g. (251)(258)(259)(279)
luiw' (V~) → want to V [=WB əgə luyw' ló]. e.g. (262)(263)(264)
luiw', so.ñhā (V~) → PURP: purpose; in order that it might V [=WB
  əgə luyw', so.ñhā lô.ñô.ñà]. e.g. (86)
lyak' (V~) → while V-ing [=WB əgə lyak' ḫajé?]. e.g.
luyw' (V~) → easy to V [=WB əgə luyw' lwè]. e.g. (269)
luyw', so.ñhā (V~) → locative: ‘in’ [no WB equivalent]. e.g. (175)–(176)
luyw, so.ñhā (V~) → EMPH: emphatic [=WB əgə luyw, so.ñhā lîñ]. e.g. (270),(271)
laiñ' (V~) → order, imperative [=WB əgə laiñ' lîñ]. e.g. (266)(267)(268)
vam" (V~) → dare to V [=WB ə vam" wîN]. e.g. (272)

sate (V~) → REAL.EUPH: realis and euphonic marker V-s, V-ed [=WB əgə sate
  sataññ" ðadî].
sā (V~) → be feasible to V [=WB əgə sâ ðà]

saññ" (V~) → should V, ought to V [=WB əgə saññ" ðiN]
siy' (V~) → yet/still V [=WB əgə siy' ðè]
sō (V~) → REALIS: V-s, V-ed [=WB əgə saññ" ði] – see (40), (109), (110)
sate (V~) → REAL.EUPH: realis and euphonic marker V-s, V-ed [=WB əgə sate
  sataññ" ðadî].

suiw" (N~) → like, as ifN [=WB əgə suiw" ðò]
suiv" (N~) → to, towards N [=WB əgə suiw" ðò]
hu (PHRASE~) → QUOT: quotation marker [=WB ə hu hu]

ā (V~) → be free to V [=WB əgə ā" ?à]

arñ (V~) → IRR: irrealis marker; will/would V [=WB əgə arñ? ðàN]
The structure of Pagan period Burmese 305

- (V-) → be feasible to V [=WB ��sā θā]. e.g. (273)
- (V-) → ATTR: attributive clause marker [=WB �� so θō]. e.g.
- (V-) → because V [=WB �� so.kroī' θōdzāun]. e.g. (90), (91)
- (V-) → should V, ought to V [=WB ��sā θīn]. e.g. (277)
- (V-) → yet/still V [=WB �� siy θē]. e.g. (274)(275)(276)
- (N-) → direction: ‘to’ [=WB �� suiv θō]. e.g. (168)–(169)
- (N-) → locative: ‘in’ [no WB alternative]. e.g. (174)
- (N-) → dative: ‘to’ [=WB �� dā' ?ā]. e.g. (158)–(159)
- (V-) → be free to V [=WB �� dā' ?ā]. e.g. (278)
- (V-) → V further, more; go on and V [=WB ��?ū θōun]. e.g. (279)(280)
- (V-) → PURP: in order that it will V [=WB �� so.nhā ?āN.dō.θā]. e.g. (85)
- (V-) → ought to V [=WB �� ap'?āN]. e.g. (281)(282)
- (N-) → possessive/genitive [=WB �� e'?i]. e.g. (166)(167)
- (V-) → REAL: realis marker V-s, V-ed [=WB �� e'?i]. e.g. (192)(193)(194)(195)
- (N-) → this [=WB �� i ?i].
14 The experience of writing the first German–Myanmar Dictionary

Annemarie Esche
Humboldt University (retired)

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>DAAD</td>
<td>Deutscher Akademischer Austauschdienst 'translate'?</td>
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<tr>
<td>EMD</td>
<td>English–Myanmar Dictionary</td>
</tr>
<tr>
<td>f</td>
<td>Femininum 'feminine'</td>
</tr>
<tr>
<td>geh</td>
<td>geheben 'elevated style'</td>
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<tr>
<td>GMD</td>
<td>German–Myanmar Dictionary</td>
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<tr>
<td>hb</td>
<td>haben 'have'</td>
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<td>l</td>
<td>Italian word</td>
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<tr>
<td>lit</td>
<td>vorwiegend geschrieben 'written language'</td>
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<td>m</td>
<td>Maskulinum 'masculine'</td>
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<td>MED</td>
<td>Myanmar–English Dictionary</td>
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<td>od</td>
<td>oder 'or'</td>
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<td>P</td>
<td>Pāli</td>
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<td>Pl</td>
<td>Plural</td>
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<td>Sg</td>
<td>Singular</td>
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<td>sn</td>
<td>sein 'be'</td>
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<td>RHD</td>
<td>Random House College Dictionary</td>
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<tr>
<td>Skr</td>
<td>Sanskrit</td>
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<tr>
<td>umg</td>
<td>umgangssprachlich 'colloquial'</td>
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1 Introduction

Writing the first German–Myanmar Dictionary (GMD) has been an arduous enterprise. My thanks still go to the late Professor Schubert of Leipzig, who originally advised me to write a Dictionary in which the target language was my mother tongue. I followed his recommendation, and that Dictionary was published in 1976. Some years later I started with the GMD. The Myanmar language has changed greatly since the beginning of the 20th century, particularly since 1948: over the years, different ideologies come into being. This change in themes has resulted in a change of words: the vocabulary has developed

Footnote: In this article, I use the term ‘Myanmar’ for the name of the country, its people and their language.

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rapidly and modern Myanmar literature is rather different from older literature. However I
decided to limit the Dictionary to only words from modern Myanmar and did not include
words that I have collected while translating 19th century literature. Despite this, some
words still used in the 20th century have had to be marked as veraltet ‘obsolete’ or
veraltend ‘obsolescent’.

Despite my continuous efforts, to this day I am tormented with one principal question:
Is a German–Myanmar Dictionary really necessary, and has it been worth investing so
many years’ of time and such an amount of money?

Academic interest in the Myanmar language in Europe is restricted to a few scholars
with small groups of students around them, working in universities in Berlin, London,
Paris and St. Petersburg. The European economy has a limited interest in Myanmar and
the tourism industry is content with practical glossaries or phrase books. At universities in
the Union of Myanmar — with the exception of the Myanmar language departments
§,oocro� ¥,�:

mj̀nnmàžàhànàmjá themselves — many subjects, if not all, are taught in
English. Years ago I was asked by a German speaker whether it would not be better for
the Myanmar authorities to introduce English as an second official language for the Union
of Myanmar. I offered him two main counter-arguments. Firstly, the introduction of
English as an official language would not only separate the people from their literary
heritage but also from their cultural heritage as a whole. Secondly, if writers, the
intelligentsia, economists, and officials were to converse and correspond in English, the
remaining majority of the people would be excluded, simply by virtue of speaking in their
mother tongue. It would be a divide and rule policy within their own population. I don’t
know whether I was successful in convincing him but I maintain my opinion.

Many sources have acted to spur on my determination, particularly the repeated
questions from German students and friends as to whether, after more than fifteen years of
work, the Dictionary was finished yet. Thanks are also due to the grants of German
organizations like the DAAD (Deutscher Akademischer Austausch Dienst — the German
Academic Exchange Service) for Myanmar students and lecturers to study or carry out
research at a German host university within their program. Finally, I was also persuaded to
continue simply by the urge not to give up after so many years of work and the pleasure I
had in the work itself: finding lexicographical equivalents and compiling the Dictionary.

2 Help from other dictionaries

Where could I turn for help? Good, reliable, German bilingual dictionaries were beyond
the scale of the task in hand. Whilst sources like Duden — the best monolingual German
Dictionary — were important reference books for the GMD, their comprehensiveness
gained from long traditions of Dictionary-making meant that there could be no question of
the GMD being comparable with them. A Dictionary of that scale would have required
extensive linguistic preparatory work. So it was necessary instead to consult reference
books which included the Myanmar language in some capacity or other, and to plague
Myanmar scholars and friends with endless questions.

The modern-day Burmese lexicographer is perfectly aware of the tremendous
achievement of Adoniram Judson in producing his Burmese–English Dictionary (Judson
1853), especially given the conditions of his day. However, as all those familiar with it
will know, it is now outdated and useful only for special research. The Student’s English–
Burmese Dictionary by U Tun Nyein (1959), The University English–Burmese Dictionary
by U Ba Han (1951) and The Universal English–Burmese Dictionary by U Tun Aung Lin
The experience of writing the first German–Myanmar Dictionary

The experience of writing the first German–Myanmar Dictionary (1960) were all compiled with a high degree of expertise and can be regarded as a major advances in Myanmar lexicography. They were, however, mainly written for native speakers of Myanmar language. Moreover, U Ba Han especially, offers long English phrases without translation into Myanmar, thus making the practical use of his dictionary time-consuming and therefore difficult. This criticism can not be made of the English–Burmese Dictionary by Saya Tet Toe (1975), who included translated examples and avoided superfluous explanations.

The establishment of the Burmese Language Commission, now the Myanmar Language Commission — hereafter MLC — by the U Ne Win government on 15 September 1971 was an important step forward in lexicography. The MLC’s Myanmar Dictionary (MLC 1991) and their Myanmar–English Dictionary (MLC 1993) — hereafter MED — were the main sources for compiling the GMD, both because they used orthography which could be regarded as standardised, and because both books had been compiled by a group of scholars, rather than individuals with preferences for particular orthographic conventions. The advantages of the MED are several. Firstly, the examples given in Myanmar are short and precise, though not translated, placing foreign users at a disadvantage. Secondly, the pronunciation is given for each entry. Thirdly, space is saved by omitting particles which do not need to be included next to verbs and adjectives in a Dictionary: the MED has headwords consisting of single verbal morphemes like စစ်သော ‘go’, rather than verb+suffix စစ်သော သတ် ‘go.REALIS’, or အီး ကြှိ ‘good’ rather than အီး ကြှိ သတ် ‘good.ATTR’.

The binary nomenclature provided for most of the botanical and zoological names in the MED is to be appreciated, although in practice it sometimes no longer corresponds with current research usage. In any case the information about genus and species is certainly more useful than the explanations found in other dictionaries, where ကြက်ကလေး, ကြက်နာရင် is described as ကြက်ကလေး: [kʰwetəmjó ‘dog.one.kind’] ‘a kind of dog’ (Tet Toe 1975: 338) and မြို့ as မြို့: [θɛʔ.θəmjó ‘bird.black.one.kind’] ‘a kind of black bird’ (Tet Toe 1975: 1188). One can, of course, argue that an explanation such as that given in the MED for ပေါင် (pən) ‘kind of edible plant with bulbous root’ (MLC 1993:305) is better than nothing, but in my opinion one should clearly distinguish description and circumlocution from lexical equivalents, even though the boundary between the two is not always easy to draw.

Help for the GMD was also available from The modern simplified English–Myanmar Dictionary for students and schools by Soe Thwe (1994), the French–Burmese Dictionary written by Denise Bernot (1978–92), the Russian–Burmese Dictionary (Novikov and Kolobkov 1966) and the Burmese–Russian Dictionary (Minina and Kyaw Zaw 1976). As I cannot read Chinese or Japanese I did not consult the dictionaries compiled for those languages. For specialised dictionaries, I had at my disposal the two-volume English–Myanmar Word Bank with technical terms organised by subject (Sarpay Beikman 1963) and the eight fascicles of a specialised technical Dictionary Vocabularies by Subject (Ministry of Education 1971–1974), organised alphabetically by topic. However, times change quickly. In the thirty-odd years since the latter was published, some terms have fallen out of use, and many new terms have come into use. Therefore these books cannot be relied on without supplementary evidence. More recent publications were a great help, for example The English-Burmese Dictionary of Western Medicine by Kaung Nyunt (1992), with its equivalents, explanations, and pictures, and San Lwin’s (2003) Dictionary of Military Terms, which offers translated examples aimed in particular users writing in
Myanmar language. Further compilation of specialised dictionaries like these is the task of
the universities in Myanmar, and this is, to the best of my knowledge, already underway
for some subjects.

The most recently published general Dictionary is the *English–Myanmar Dictionary*
(EMD) (San Lwin 2001). It offers approximately 22,000 headwords, 1,500 compounds,
and 11,000 idioms, on 1,622 pages bound in one unwieldy and heavy volume. This
Dictionary also contains many English examples without translation, ostensibly to help
users who are learners of English, though obviously this reduces its value for other users.
It does offer a number of useful modern words which do not appear in earlier dictionaries,
and supports the user with helpful illustrations. Even so, there is a question of whether
Myanmar learners of English really need so many untranslated examples. I do not think
that this practice has been successful elsewhere. It is worth noting that in the EMD, unlike
the MED, unnecessary particles are attached to the Myanmar equivalents of verbs and
adjectives.

3 Equivalents

Even in bilingual dictionaries of European languages we do not always find true
equivalents of source language words in target language translations. In cultures where the
environmental fundamentals of plants, animals, climate, etc. are so different from those in
Europe, the problem of equivalency is even more complex. In this respect I was
confronted with two main problems. The first was the fine gradation from circumlocution
to equivalency in the case of unfamiliar Myanmar words; the second was finding
equivalents for those foreign words which might refer to concepts unknown to the
Dictionary user. As one is able to trace the meaning of nearly every morpheme in
Myanmar language, the string of morphemes selected to translate a particular new word,
for instance a compound noun, may vary considerably between individual speakers and
writers, and the sequence of syllables may vary. Only after a certain time and often
through appearance in newspapers, radio, and television may the new word become
established as an accepted sequence of morphemes.

I offer here one of many possible examples, the word *Machtpolitik* ‘power politics’. Tet
Toe (1975: 1505) whose Dictionary contains a considerable number of political words,
provides the periphrastic translation in (1), while the *Universal English–Burmese

(1)  ကြက်ကလေးချင်း  အစိမ်းအကျော်ဆာ  အခြားစက်စွမ်း
     နိုင်ငံခြေချင်း ဗိုလ်မှူးချောင်း  ဗိုလ်မှူးချောင်း
country.RECIP  strength.compete.SUBORD  affair.say.ATTR

(2) ကြက်ကလေးချင်း  အစိမ်းအကျော်ဆာ  အခြားစက်စွမ်း
     ကျော်လွန်နိုင်ငံများ  ဗိုလ်မှူးချောင်း ဗိုလ်မှူးချောင်း
world.top-level.country.PL  one.CLF.with.one.CLF  strength.compete.ATTR

*‘national affairs where nations compete with one another for strength’*
Neither Tun Nyein (1959) nor Soe Thwe’s *Modern Simplified English–Myanmar Dictionary* include the phrase ‘power politics’. In the EMD, the editors insert the Myanmar phrase နိုင်နိုင်ရာမှု nainjaNje. ??anà ‘politics.power’ under the headword *power* (San Lwin 2001:1057). We might deduce from this that power in the sense of *Machtpolitik* should not be အဖွဲ့ ရှောင် ‘strength/power’, but အဖွဲ့ ??anà ‘power’ in the English sense of ‘to take, seize, or lose power’ or ‘to come to power’. Similarly the *Myanmar–Russian dictionarry* gives for နိုင်နိုင်ရာမှု the phrase ပြိုလဲခြင်း အက်းမှု ‘political power’ (Minina and Kyaw Zaw 1976: 673). Basing my decision on the above information, I decided that အဖွဲ့ ??anà nainjaNje ‘politics.power’ was a suitable equivalent for *Machtpolitik* in the GMD.

A number of problems arose from headwords with a narrow, specific meaning. For instance, for the Myanmar equivalent of the German word *Autobahn* I chose not to adopt the UK English term ‘motorway’ or the US English ‘freeway’ — neither of which would be likely to be understood in Germany — opting instead to write the German word *Autobahn* in Myanmar script as in (3), adding the explanation in (4):

(3) ဆီခုိုးခုိုးမျှော်လင်းမှု
    ?au?tobâN.lán.ma.dj
    ‘Autobahn.road.main.big’

adding the explanation

(4) ဆီခုိုးခုိုးမျှော်လင်းမှု
    pja?lán.mg mòtòjin ??mjan.mùnl.lán
    crossroad.without motor.vehicle fast.drive.road
    ‘high speed motorway without crossroads’

Rendering *Autobahn* in Myanmar in this way is similar to the inclusion in the monolingual English *Random House College Dictionary* of *coffee klatsch*, *coffee klatsh* and *kaffee klatsch*, listed as variants of the German word *Kaffeeklatsch* (Stein 1984:216).

For word specific to particular cultures, anticipating that the Dictionary user who has not spent much time in the culture of the source language may have some difficulty, I provide a transcription of the word in the source language followed by an explanation in brackets in the relevant languages. Thus the Myanmar word ကျောင်း မောင် gùnbàwn appears in the GMD under the German headword *Gaungbaung*, followed by the German explanation ‘Kopfbedeckung für Männer der Bamar und der Mon bei besonderen Gelegenheiten’ [headcovering worn at special occasions by Bamar and Mon men], and the headword *Polka* is rendered in Myanmar as ချောက်ပါ စလေး with the addition explanation, this time in Myanmar: ကျောက်ချောက်မောင်ပါ ‘a kind of folk dance from Bohemia.’ Of course, if the reader has never seen people dancing a polka, they cannot understand the concept in depth. For such explanations, sometimes I had to resort to ချောက်ပါ: သမိုင် ‘a kind of ...’.
In some cases I decided only to give a circumlocution in Myanmar, marked out with a star, for instance *Weibsnäherin* ‘underwear seamstress’ or *Sektflämmchen* ‘container for immersing champagne bottles in ice’. Terms for delicacies like *Kaffeefahrt* or *Nugat* were, however, simply dropped. A Dictionary is, after all, neither a specialist lexicon nor a cookery book, and the circumlocution would be too long-winded and still barely comprehensible for the respective users.

Some years ago I was criticised by some German scholars for the insertion of Myanmar words as headwords. I was told that words like *Gaungbaung* [*gawngbaung*], *Khauswe* [*kawhshwe*] ‘Shan noodles’, or *Zayat* [*tsaiya*] ‘shelter’ should not be headwords in a German–Myanmar Dictionary. I replied by inquiring why in the *Duden* (Deutsches Universal Wörterbuch A–Z ‘A–Z German Universal Dictionary’), which contains, according to the foreword – ‘den Wortschatz der deutschen Gegenwartssprache’ (‘vocabulary of the present-day German language’), we can find many non-German headwords, for example *Iglu* (Inuit), *Kolchose* (Russian) or *Haiku* (Japanese).

Cultural differences often prevent bilingual dictionaries for Myanmar and European languages from providing exact lexical equivalents. Should I have translated *gaungbaung*, the headwear worn by Bamar and Mon men on special occasions, as *turban*? Or should I have left out the word *taikkhan* (‘a taikkhan house, with a brickwork or masonry structure downstairs and a wooden structure upstairs’)? Architects from three European countries were unable to give accurate equivalents in their own language for a building of this kind. My own experience of Myanmar words combined with data from Myanmar newspapers and periodicals published in the English language enabled me to select a number of headwords to treat in this way.

Allow me to present an important example illustrating the difficulty of equivalency: *kān,kaun* ‘be lucky’ is a common phrase in Myanmar. In the Myanmar–English Dictionary *kān* is translated as ‘one’s deed, word or thought which predetermines one’s future’ (MLC 1993:12), but the meaning of *kān* in *kān,kaun* ‘be lucky’ is simply ‘luck’ – *Glick* in German. Translating from English, Saya U Tet Toe and Saya U Soe Thwe translate the word ‘fate’ with *kān,cauma* (Tet Toe 1975:675; Soe Thwe 1994:455), in keeping with the MLC translation of *kān*. However, *kān,cauma* is a Pāli–Sanskrit hybrid which can never mean ‘fate’. This word *kān,cauma* is dominated by Buddhist philosophy, whereas the term ‘fate’, derived from the Latin word *fatum*, means something that is predetermined and must be accepted. It is not necessary to elaborate here on the difference between fatalism and Buddhism. We find a second sense of *kān* defined in the MED (MLC 1993:12) given as ‘luck, fortune, lot’. ‘Luck’ in German is *Glick*, a word which also has two meanings. The first is *Glücksfall* ‘a case of luck’ and secondly is *Glücksgefühl* ‘a feeling of luck’. I translated the first meaning as *kān,kaun,din* ‘luck.good.NOM’ — an instance of good luck — even though this is rarely used in speech, and the second one as *pjawin,jè* ‘happy.affair’. I am still unable to offer a better solution but I don’t like to sacrifice the term *kān,cauma* to the word ‘fate’ and its misleading implications.

4 Transcription and pronunciation

As in the Burmese–German Dictionary (Esche 1976), I followed the phonemic transcription developed by Eberhardt Richter (as set out in Richter and Than Zaw 1969:11–15). With the help of some speakers from Myanmar and a sonograph, my
colleague Richter transcribed the aspirated sounds $\text{Ø} \infty \infty \text{Ø}$ as $\text{kh sh th ph}$, respectively. Zargara (1978) transcribes in the same way, except for $\text{S}$ which he transcribes as $\text{hs}$. In the MED, however, the same consonants are transcribed thus: $\text{K}$ as $\text{kh}$ but $\text{S T P}$ as $\text{hs ht hp}$. The motivation for this reversal is easily understood/grasped: since people using a Dictionary like this have at least some knowledge of English, they might pronounce $\text{sh th ph}$ as $[f \theta f]$, as in the English words ‘she’, ‘thorn’ and ‘phase’. In my opinion, however, such a consideration is unnecessary and such transcription should be avoided. The determining factor should surely be the scholarly analysis, namely that the transcription should follow the actual phonemic or phonetic pronunciation consistently.

In the GMD the vowel of the stressed syllable of the German headwords is underlined ($\text{H}\text{öbel, klammern}$). Only in difficult cases, especially for foreign words used in German, is the pronunciation added, for instance $\text{Lobby} \quad \text{['lbI]}$. In giving Myanmar equivalents, users are alerted to the pronunciation of words only when it is not predictable from the Myanmar spelling, as in $\text{door}$, which is spelt $\text{tænk'hà}$ but in fact pronounced $\text{daqá}$, with voicing throughout and the first syllable reduced.

I find it hard to understand two conventions in the transcription system of the MED. Firstly the underlined $\text{A}$ used to represent the reduced vowel $\text{a}$, known in German as the $\text{Tonschatten}$ or ‘tone shadow’. The second is the pronunciation of proper names from languages other than English, of which there are a considerable number in Myanmar. The examples in (5) from the MED with their respective transcriptions illustrate my point:

(5) a. $\text{mōnainmakan/ ... for mōnainmakhàn ‘abundantly’ (p.332)}$;
b. $\text{mathama/ ... for mōthamà ‘evil’ (p.333)}$;
c. $\text{apwe/ ... ‘organisation’ (p.557)}$.

Underlining to add emphasis to a particular item in writing is an internationally adopted convention, and in many dictionaries, it is used to indicate which syllable or vowel is to be stressed. However, the MED uses underlining to indicate the unstressed vowel – a convention I find counter-intuitive. In the GMD this problem was settled by using a symbol ‘$\text{A}$’ for the reduced vowel $\text{a}$ in the transcription, so that the examples in (5) above are transcribed in the GMD as $\text{mōnainmaksar/} \text{/mathma/}, \text{/apwwe/’}$. The diacritics ‘ and ‘ are used for the for the ‘creaky’ and ‘high’ tones, for instance, as in (6):

(6) $\text{Zaum ... /ka^gyoud곤za/ [kādōdazà ‘bridle’]}$.

Another issue is the transcription and pronunciation of non-English foreign words, in particular geographical names. It is understandable that foreign geographical names are adapted to the phonology of the speaker’s mother tongue. The English pronounce $\text{Berlin /bə:lm/}$ in an English way, just as Germans might say $\text{London in a German way /lOndən/}$. In Myanmar language $\text{Berlin}$ becomes $\text{baIn}$ because with a Myanmar accent it is hard to pronounce the German sequence /ber/ or to pronoun a syllable-final /n/.

However, it is incomprehensible to me why English rules of pronunciation are still applied to the $\text{spelling}$ of geographical and proper names of countries whose national language is not English. Of course, this tendency may be partially explained by the historical influence of English on Myanmar through British colonisation. But this historical experience should become increasingly weaker, a process one can already see. I read for instance that the spelling of the French capital $\text{Paris}$ has changed from $\text{ pari}$ to $\text{pari}$. Nonetheless I still baulk when I see Ukraine rendered in Myanmar as the...
English-sounding jùkərˈɛɪn. I prefer jùkərˈjinya which more closely reflects the Ukrainian spelling Ікраїна /ukraˈjina/. In some cases I attempted to promote this change: I have spelt German proper names ending in ...burg with ...buʁ /buʁ/ (or /bug/) and those ending in ...berg as ...bɛʁ /bɛʁ/ (or /bag/). Thus Brandenburg becomes bɔɐ̯ndɪnˈbuʁ and Württemberg ʁʊɐ̯tɪnˈba?. In my opinion the rendition of geographical and proper names should be as close as possible to the pronunciation those names have in their original language, as exemplified by the case of Paris. Adaptation to phonological constraints of the language into which the name is being rendered means we have to ‘Myanmarise’ names if necessary.

5 Grammatical information and sense indicators

For an inflected language like German, it is essential to provide grammatical information about nouns and verbs. For nouns I thought the most space-saving way would be to add gender notation following the noun: m, f and n for masculine, feminine and neuter, respectively. Following this is a number which refers to a table where the user can find how to decline this noun, following the patterns described in the dictionaries of Verlag Enzyklopädie, Leipzig. Lastly, if the noun is used only in singular (Sg) or plural (Pl), this is also indicated. The examples for ‘sea’, ‘flour’ and ‘crow’s feet’ in (7) illustrate this:

(7)  a. Meer n 20 Geogr ɔɛ̃coʊɔ (↑ Gelbe ~, ↑ Rote ~, ↑ Schwarze ~, ↑ Tote ~, ↑ Weiße ~)
    b. Mehl n 20 Sg ɐɛ̃ (↑ Erbs-M~, ↑ Reis-M~, ↑ Roggen-M~, ↑ Weizen-M~)
    c. Krähenfüße Pl (umg für Runzeln in den Augenwinkeln) ɐɛ̃coʊoʊɛ̃koʊi (umg für schlechte, krakelige Schrift)

For verbs, it is important to know whether the compound past tense is formed with haben ‘to have’ or sein ‘to be’. Since all transitive verbs <vt>, reflexive verbs and most intransitive verbs <vi> take haben, I marked with the abbreviation <sn> only those intransitive verbs which take sein. Some examples illustrate this notation: (8)a and b and (9)a take haben; (9)b takes sein; (8)c takes either haben or sein.

(8)  Weak verbs
    a. schmücken vt ʊɭ: (ich habe geschmückt) [mjuːn ‘decorate’]
    b. zittern vi ʊɭ: (ich habe gezittert) [toun ‘tremble, shake’]
    c. pendeln vi <hb, sn> (hin- und herschwingen) ʊɭ: (es hat, es ist gependelt) [jɛikha ‘swing’]

(9)  Strong or irregular verbs
    a. werben vt <16a> (Mitglieder u. ä.) ʊɭ: (ich habe geworben) [sǐːʊn ‘enlist’]
    b. laufen vi <9/sn> ʊɭ: (ich bin gelaufen) [bwa ‘go’]

To prefixed verbs I added ‘a’ to verbs in which the prefix may be separated from the stem and ‘b’ and ‘c’ when it is not, as in (10):
(10) **PREFIXED VERBS**

a. **durchtrennen** *vt* \(<a>:\) \(khw\) \^{split\}'

b. **durchtrennen** *vt* \(<c>:\) \(khw\) \^{split\}'

c. **erhalten** *vt* \(<3b>:\) \(theiN\) \(\text{conserve}'\)

A number added in brackets \(<3/b>\), refers again to another table that shows how the verb is conjugated. The user will find under number 3 only a - ie - a , enabling them to conjugate the word *erhalten* in the forms: *ich erhalte, ich erhielt, ich habe erhalten*. It is noted that examples like *erhalten* are exceptional in containing the bracketed German translations.

Productive users of the Dictionary are disadvantaged if Dictionary makers fail to provide exact sense indicators and context-sensitive information. There must be some brief information about the semantic field (*Fachgebietsangabe*) to which a word belongs, for instance *Mus* for music, *Geogr* for geography, *Ling* for linguistics and so on. Very often supporting words (*Stützwörter*) were added to show the different meaning of a word, as with the *Krähensülße* above.

**6 Orthography**

As the Myanmar Language Commission has largely standardised Myanmar orthography, I kept strictly to the orthography given in the MED. So, for instance, I write \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) rather than \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) for *tamjó ‘one kind’*; \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) rather than \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) for *phá ‘frog’* and \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) rather than \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\). Of course, the non-standard spellings may still be encountered, but the standardised orthography is largely accepted both in the press and in other publications.

However, the writing of Myanmar geographical names in Roman letters remains problematic. Geographical names were not included in the MED, and so had to be collected from other sources. Given the lack of official romanised forms, it is unsurprising that one can find various spellings in publications. For example, \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) appears as *Ayeyarwady* or *Ayeyawady*; \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) as *Inlay, Inlay or Inle*; \(\text{S}h\) \(\text{Saw}\) \(\text{B}a\) \(\text{A}\) as *Pyay or Pyi*. I included a number of such names in the Dictionary, but sometimes doubted which spelling I should follow.

**7 Stylistic Register**

Generally dictionaries translating between European languages and Myanmar provide little information relating to stylistic register. In my first dictionary I provided only limited information: *lit* for written style, *umg* for colloquial style, and *vulg* for vulgar words. In the GMD I have again included some indication of register, though rather reluctantly. After all some Myanmar authors, especially in Upper Myanmar, write their stories in colloquial style; newspapers and journals sometimes contain a mixture of styles; and spoken language may contain phrases normally found only in written language. One might doubt whether it is possible to give useful information regarding style.

In spite of these misgivings I did include information indicating register, based on my experience, though not without initially qualifying this in the Explanatory Notes as being no more than suggestions. In most cases I added the same indications of written style (*lit*),
colloquial style (umg) and vulgarity (vulg). Within lexical entries, I placed words used in both speaking and writing first, followed by colloquial words and then written/literary words at the end of the group, as in (11):

(11) a. **Ausflüchte gebrauchen** अस्फूर्तिज्ञानमति umg [kètıkàtj.lou? ‘quibble’]
    b. **fragen** आक्षेपण स्वैँ गेि geh [mé, memján ‘ask’]
    c. **lachen** लहन lit [ji, jimó ‘laugh’]
    d. **studienhalber** औपनिवेशिकरित्यumg, औपनिवेशिकरित्य lit.

8 Etymology

Before the Myanmar language was established in written form, the Mon language was widely used in Bagan, and the Indo-European languages Sanskrit and Pāli also enjoyed high esteem. Monk-scholars and members of the high society at court acquired Sanskrit and Pāli along with Buddhist teaching and used these languages as a model for own work by connecting Pāli and Sanskrit terms with words in their mother tongue. As a predominantly Buddhist country, Pāli words are often found in Myanmar today, not only in Buddhist contexts like बुद्धिसःरः <P: cetanà> [sédanà ‘goodwill’] but also in every-day usage like गालाउँ <P: dhåtû> [da?shì ‘petrol’]. As German users may not be familiar with Pāli and Sanskrit, particular attention was paid to the decoding of Pāli and Sanskrit words.

In Myanmar texts these items can often stand alone, written in their original form only with Myanmar letters, for example बुद्धिसःरः <P: karuṇā>. However there have also been changes, sometimes following established rules, or sometimes not. Very often, words have changed not only in form but in meaning, are may be difficult to recognise. The word छालु now means ‘potato’. This word has its roots in Pāli and Sanskrit as ḍalu, where it does not mean ‘potato’ but rather *Amorphophallus paeoniifolius*, a tuber. These Pāli or Sanskrit words are sometimes combined with Myanmar words, or with other Pāli and Sanskrit words, or with English words or terms coming from Hindi, Mon and other languages. The problem for my Dictionary was considering how to provide proper etymological information without being excessive, a challenge evident in the compounds in (12):

(12)

<table>
<thead>
<tr>
<th>source lang.</th>
<th>Pāli</th>
<th>Sanskrit</th>
<th>Pāli + Sanskrit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pāli</td>
<td>पुङ्गलिका + पाचया</td>
<td>मिना + प: रासिः</td>
<td>गुँ + स्त्री</td>
</tr>
<tr>
<td>Pāli + Pāli</td>
<td>पुङ्गलिका + पाचया</td>
<td>मिना + प: रासिः</td>
<td>गुँ + स्त्री</td>
</tr>
</tbody>
</table>

Where English words were recognisable from their rendition in Myanmar, I omitted the English words, so the entry for बोपिन ‘ball(point) pen’ is simply *Kugelschreiber m 4 बोपिन <E>*.

These hybrids are the product of centuries of use by Myanmar scholars. The problem was not so much a lack of etymological research but rather the amount of space that would be occupied if all relevant etymological information were to be included. Therefore, I decided to transcribe words derived from Pāli, Sanskrit, Mon and Chinese, but to include only abbreviated source information for words from other languages such as Hindi, Malay
and Thai. Myanmar words behind or before a Pāli, Sanskrit, Mon or Chinese word are not marked, as in (13).

(13)

Kabeljaum 1 od 6 Ichth <E-> (Gadus morrhua) [kə.ŋá ‘cod.fish’]
Laterit m <_[e]s, _e> Geol <Mon:>
[Kali Eig Hind <Skr: kāli>, [kāli.naṭ.əmí ‘Kali.spirit.daughter’ Kali]

9 Final remarks

There are, of course, many problems involved in Dictionary compilation, and many things to consider in order to benefit the students learning these languages. In this paper only some of these issues have been discussed. Although the GMD contains more than 60,000 headwords, approximately 2,000 collocations and some whole sentences where necessary, it is still possible to find new words and word-combinations every day in newspapers and books. Myanmar is a language with a long, interesting history and a rich literature. Moreover, like many languages in the world, Myanmar has changed rapidly in recent decades and continues to change apace. There will surely be gaps in the coverage of the GMD and perhaps some users will not find the word or phrase they are looking for. Allow me to quote a word of consolation from the great poet Johann Wolfgang von Goethe who made the following confession:

‘Such a work ... is really never finished.
We have to accept it as such,
when we have done our best to it,
as far as time and circumstances would allow us.’

(Klatt et al. 1910:vii)


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