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NOTES ON THE PRONUNCIATION OF AN EASTERN VARIETY OF BURMESE

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0. INTRODUCTORY REMARKS

As part of a linguistic research project at the Thailand-Myanmar border I have for some time been looking into the phonetics of Burmese and Shan as spoken in the Shan State of northeastern Myanmar. The remarks below are based on some Burmese data that I collected in 1999.

Burmese is generally assumed to be a remarkably uniform language in spite of the size of the country. There are some dialects which are recognized as differing markedly from standard Burmese, such as Arakanese and Intha, but these are not at issue if we stick to the notion of "Burmese proper" as something which is felt by the Burmese themselves as being one norm used all over the country. In spite of these claims about the uniformity of Burmese in this narrower sense, it is legitimate to ask whether there is perhaps after all significant regional variation. This question is interesting in itself, and it is mandatory to formulate it and to seek an answer if one is interested in the use of Burmese as a second language by other ethnic groups, such as the Shans.

As for the question of how Burmese is spoken in peripheral parts of the country, there seems to be some tendency among scholars to make the following sweeping generalization: if one comes across a variety of the language which deviates significantly from standard usage, that must be a matter of non-Burmese ethnic groups speaking Burmese with an accent (broken Burmese). Minority people, however, typically pick up Burmese as a spoken language used in everyday life, rather than learning the language at school or through the media. Thus the relevant frame of reference is *not* the norm prescribed in textbooks or the language used at school but rather the local, colloquial way of speaking Burmese. The notion of "Burmese spoken with an accent" or (pejoratively) "broken Burmese" presupposes adequate information as to how the language is spoken locally by ethnic Burmese who live there, since they constitute the only group against whose linguistic usage **the second-language use of Burmese by ethnic Shans or by other minorities in that part of the country can be adequately calibrated.**

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The present *Notes* represent a first attempt to provide such a frame of reference for Burmese as spoken in the Shan State.

Being a phonetician and unfortunately not a specialist on the Burmese language, I found it most rewarding to focus on pronunciation. The most tricky issues are tones and vowel qualities, and the interrelationships between these two categories. These are issues which invite instrumental study, although the point of the present paper is not to contribute to the acoustic specification of tones in Burmese. I here outline a language variety which is so different that the acoustical specifications of prosodic phenomena will predictably diverge markedly from those currently discussed with reference to Standard Burmese. I hope to supplement (and in some sense corroborate) my findings later with instrumental data on some of the crucial points. It must be strongly emphasized that my present tone labels are meant to be entirely impressionistic (whether a tone is "high" or "rising" or "falling" is a very different issue depending on whether one is listening or measuring, as anyone who has ever done extensive pitch studies knows). Both levels of specification are important. I wish to add that in my view the challenge we face when working on a deviating system, as in the case of this language variety, is not overcome by rushing to fundamental frequency or vowel formant measurements. The nature of the sound pattern must be cleared up first, and that is very much an auditory issue.

According to my observations, one encounters striking deviations from the standard type of Colloquial Burmese as it is described in textbooks, deviations which are not just a matter of minority groups speaking "with an accent". Though the people I gathered my data from were to some extent of mixed ethnic lineage (as many people there are) they all definitely belonged to the Burmese community, and were in this sense totally distinct from the locally predominant Shan population, as well as from the hilltribe minorities and the local Chinese. In fact they could not speak Shan (or any local minority language) except for some everyday expressions.

Speakers consulted:

The following remarks, which are necessarily very tentative, are based primarily on observations and recordings of the speech of a couple of Burmese teenagers (of both genders), townspeople who had been raised in Taunggyi and later in Tachileik, and who were either still attending school or had just left school. As said already, they were considered - and considered themselves - as ethnic Burmese, and were in fact essentially monolingual speakers of Burmese. In encounters with people speaking Tai languages they could engage only in basic communication, using words picked up from Shan, Northern and

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Central Thai (languages which are all widely spoken in the area) and even from English, but with strictly Burmese syntax (verb last; possessor before possessum). I was told that at school they spoke only Burmese, although their Shan friends spoke Shan among themselves.

It is my assumption that the speaking habits as reported here represent the current trend among young literate Burmese of the area. In the generation of their parents one mother was raised speaking the Burmese dialect Danu', but that is not imitated by her children who on the contrary consider her pronunciation to be deviant; on their fathers' side the grandmother is reported to have come from a small and "remote" village, but that village is situated in Central Burma, not in Eastern Burma. Thus I think that if these young speakers of Burmese exhibit features deviating from Central Burmese it makes sense to say that they reflect the local variety of Burmese as spoken in the Shan State. At the same time, there is a significant absence of any trace of Shan ethnicity in the lineages of the persons on whom the present observations are based. This certainly does not exclude the presence of a certain Shan-based stratum, but it is then an adstratum provoked by the regional speaking-habits even of ethnic Burmese who have not mastered the Shan language themselves. As thus it is a phenomenon which is sociolinguistically interesting in itself.

Whenever the speakers exhibit variation, e.g. when reading words aloud, it seems to be a matter of vacillating between local pronunciation and *spelling pronunciation*. Except for expectable differences on this point, I have not so far observed major differences between these youngsters and their elder, literate or (mostly illiterate) relatives or friends. I had occasion later to check several of the recorded Burmese forms with one of their grown-up Burmese neighbours, and that confirmed the validity of my initial observations.

The present study speaks of an "Eastern" pronunciation, but that certainly does not exclude the possibility that characteristics of the spoken usage described here might occur to a greater or lesser extent in colloquial Burmese as spoken elsewhere in the country. It is my auditory impression that this is in fact true of some of the features of pronunciation described below. Such features, then, are perhaps a matter of speaking-style rather than regional variation, although they are not mentioned explicitly in the rather normative presentations of the Burmese language which one would normally consult.

The observations below were first meant to be confined to the most striking discrepancies between the pronunciation which I have observed and the standard pronunciation as prescribed in textbooks on Burmese, the latter being taken for granted as a frame of reference. The main focus was meant to be on differences which have direct implications for the sound system, i.e., which are phonological rather than just phonetic. It turned out, however, that it

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was difficult to give an adequate characterization of the local speech without presenting a somewhat broader picture including general statements about Burmese phonetics and phonology which may seem rather redundant to those already familiar with Burmese. Even so, my statements below are selective; an overall presentation of the sound pattern is not attempted.

It will be noted that there are in particular three major points of divergence between Burmese as codified in textbooks, and the language variety under consideration here. The first is the phonology and phonetics of the non-low tones. The second is the phonation type in sequences of **b**, **d**, **g** plus vowel. The third is the merger of dental fricatives with dental stops. Also the vowel pattern presents interesting points of detail. It is very likely that the information presented here must be revised eventually when a more complete picture of the phonology has emerged, on such issues as the influence of sentence intonation on word tones, or the greater or lesser regularity of voicing of "voiceable" consonants.

Notational conventions:

In the comparison of "Eastern" Burmese (henceforth E. Burm.) with Standard Burmese (St. Burm.), my main frame of reference for the latter is John Okell's *A Reference Grammar of Colloquial Burmese* (London: Oxford University Press, 1969), see Chapter One, "Sounds", p. 4-22. However, I am forced to deviate from his practice of using **ei** for a higher and **e** for a lower vowel. That convention is extremely awkward especially because the digraph **ei** then becomes ambiguous in E. Burm. Thus, in discussing E. Burm. it is confusing to have the same segmental representation of the rhymes in **pei´** 'close' and **meí** 'forget', as one should according to Okell's transcription conventions, with **ei´** marking the "stopped" tone, and **eí** marking the "creaky" tone. In E. Burm. such words are quite different segmentally: the former has a genuine diphthong and the latter an almost steady vowel (in between Cardinal Vowels 1 and 2); this difference between diphthong and monophthong carries the whole distinctive load since the prosodic contrast between the syllable-types is neutralized in final position (see Section 1 below). To make things even more complicated, there are instances of diphthongal pronunciation of creaky **eí**, namely in the presence of nasalization, as illustrated by **@meíN** 'order' with a true diphthong (cf. the section on Vowels below). The resulting notational ambiguity would be rather detrimental to a contrastive presentation of E. Burm. in a Standard Burmese framework.

As for the lower set of vowels, Okell's **e**, **o**, some transcription conventions instead use **eh**, **aw**, but I here choose a set of more unambiguous though clumsy symbols: **E**, **O**, e.g. **hyE´-tE** 'shy', **hpÈ** 'cards (for playing)';

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thÓ 'key', **hÒ pyÒ** 'lecture'. This makes the symbols **e, o** available for the higher set of vowels, as in **mé** 'forget', **myè** 'grandchild' and in **pó** 'send', **ò** 'pot', and it further reserves **ei, ou** for exclusive use as symbols of the true E. Burm. diphthongs found e.g. in **pei´** 'close', **eiN** 'house' and in **phou´** 'bake', **bouN** 'drum' (which further contrast with **ai, au** as in **bai´** 'belly', **naiN** 'may' and in **pau´** 'throw', **tauN** 'mountain'). Accordingly, the symbols **ei, ou** occur only in syllables with laryngealized tones (stopped or creaky tone) or with nasalization; elsewhere, Okell's complex symbols **ei, ou** have been abandoned and replaced by **e, o**. The modified transcription used here seems unambiguous though perhaps phonetically debatable for Standard Burmese, but its *raison d'être* is that it converts transcribed Standard Burmese into a much more expedient frame of reference for the discussion of E. Burm.

As for tone marks, I follow Okell's conventions with one exception: I use an acute accent mark "´" after the syllable in question (rather than Okell's IPA-symbol for glottal stop) to symbolize the stopped tone, cf. examples above. Note that the same accent mark when placed directly over a vowel symbolizes the creaky tone (this typographical similarity is convenient since the laryngeal component is actually the same for both tones in E. Burm.). Digraphs consisting of vowel symbol + "N" (i.e. "VN" rather than Okell's "Vñ") are used to symbolize nasalized vowels. The schwa-vowel is rendered as "@". For clarity, syllables are always separated either by hyphen or by word space.

The documentation of E. Burmese wordforms in the present *Notes* is given in a somewhat indirect fashion, viz. in terms of interpretive rules which operate on a conventional reference transcription. A fuller statement should, of course, include firstly a phonetic transcription (in the IPA format) and secondly a reference spelling using Burmese letters. This has not been done below, partly for reasons of typographical convenience (also because these *Notes* may eventually be made available on the Internet), and partly because this exposition was worked out as part of a more comprehensive report written in a fairly non-technical format and intended for non-expert readers.

In the sections and paragraphs below, Standard Burmese forms are consistently given in the modified type of transcription defined above. In order to have a convenient frame of reference in "the field", I have adapted most of these reference transcriptions from easily portable vocabularies compiled by competent people, such as those in David Bradley's *Burmese Phrasebook* (1997) and in the booklet *Practical Myanmar* (1996). The E. Burm. forms I have recorded are discussed with reference to this transcription with only occasional deviations, since the E. Burm. pronunciation can on the whole be derived from it by rule, including rules about tonal merger. It will, however, be

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noted by readers with access to Burmese spellings of the wordforms that E. Burm. is on some points better accounted for if the traditional orthography is also taken into consideration, i.e., E. Burm. pronunciation is not just a derivative of Standard Burmese.

The main problem with the use of Colloquial Standard Burmese as the frame of reference is that although each of the sources I have consulted uses a basically adequate type of transcription, they do not always agree on the rendering of individual lexical items; in particular a syllable-initial stop may be variably transcribed as voiceless or voiced. As a result, the reference transcription I have compiled for use in this paper has inconsistencies which may reflect either sandhi variation or a mixture of different speaking-styles. I am not myself in a position to repair this with respect to St. Burm. On the whole these inconsistencies do not seriously complicate my attempt at an exposition of the phonological characteristics of E. Burm. in a contrastive framework.

1. THE SYSTEM OF TONES.

Burmese is known to be a tone language, with many lexical items differing only in word prosody. It has been presented in the literature as having anywhere from three to five tones; this lack of agreement reflects the non-uniqueness of phonological analysis of tone. There has also been some empirical disagreement among scholars about the phonetics of tone in Burmese (the literature on Burmese tones, including such issues as breathiness, is not considered here since I am dealing with a deviating norm). It is, however, indisputable that there are five prosodic categories.

It may be possible to argue that there are only two lexical tones in St. Burm., since the only absolutely indisputable fact about distinctive pitch is that there is a difference between a non-raised tone category (comprising the so-called toneless syllables and the "level" tone, as found respectively in the first and second syllable of **@-thaN** 'sound'), and a raised (i.e., in some sense high) tone category (comprising the rest of the tonal inventory, as exemplified by the last three syllables of **@-htE´-tàN-cá** 'superior'). This presentation of the pattern implies that syllable prosody is in part tonal and in part a matter of phonation type, there being a "creaky" and a "stopped" syllable prosody which combine with the raised tone to form complex syllable prosodies in addition to the plain (raised and non-raised) tones.

In textbooks on Burmese it seems customary instead to categorize the syllables with raised pitch in terms of three distinct high/falling tones, which from the perspective of St. Burm. may be referred to as "stopped" (cf. **-htE´-** above), "creaky" (cf. **-cá-** above) and "plain" (cf. **-tàN-** above). Including the

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non-raised tone we thus end up with a phonological system of four tones (if schwa-syllables are listed as a separate category, the inventory may be said to rise to as much as five). I shall here refer to the two basically laryngealized tones as "high tones" (thus excluding the non-laryngealized raised tone, although that is also in some sense high in E. Burm.); somewhat inconsistently, the remaining tones will be referred to as "plain tones" (implying that the two high tones are marked tone categories). For E. Burm. this treatment of the pattern as basically tonal has one point in its favour: the four prosodies still differ in tone even when phonation type differences are neutralized due to sandhi, i.e. in word-internal syllables (see below).

(a) The high tones.

As for the E. Burm. counterparts of the stopped and creaky tones, it seems convenient first to specify them tonally by looking at their occurrence internally in phonological stretches, i.e. in sandhi, and only afterwards to specify their complex behaviour in final position.

(i) Sandhi-realizations of the stopped and creaky tones: In E. Burm. these two tonal categories mostly drop the laryngealization before a conjoined syllable. This is the normal behaviour of stopped and creaky tones in the first syllable of bisyllabic wordforms, e.g. **hmÉ-dE** 'ripe', **hpya´-tE** 'cut' (numerous similar instances occur in wordforms cited below). The dropping of the laryngeal syllable termination is also found in more complex sequences, for example in the construction Noun + Numeral + Classifier: **cE´-t@-gauN** 'one chicken', spoken with a high pitch on the first syllable. It may occur several times in complex lexical expressions, e.g. the first and second syllables of **hni´-pa´-lE** 'annual' and of **thE´-tha´-lu´** 'vegetarian', in the first and third syllables of **pou´-g@-lí-ka´** 'personal, private', and in the first three syllables of **lE´-twÉ-cá-dE** 'practical' and of **mí-bá-mÉ-k@-lè** 'orphan'. All the syllables in question are simply spoken on a high pitch, except possibly in over-distinct dictation style (the second syllable of **à-la´-yE´** 'holiday', for example, was first said with an open second syllable, but while I was making a record of the wordform the speaker repeated in dictation style, and he then produced a glottal stop on this syllable **la´**).

There certainly are forms which retain the laryngeal characteristic of the tone in this position. In most cases they seem to be either rather complex phrasal constructions or complex words of a more literary character than the words mostly used in casual speech. More interestingly, the glottal stop occurs before the particle **bù** in negative constructions, e.g. **m@-hou´ bù** 'no' (as to **bù** for **hpù**, see remarks in the section on Consonants). Whenever the

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laryngeal component is thus retained internally in a single grammatical phrase or even within a word, I indicate it by using space rather than hyphen between the syllables (the phonological sequences bounded by such boundaries, as indicated by space, may be referred to conveniently as phonological "stretches"). Examples are the second and fourth syllable of **t@-khú m@-hou´ t@-khú** 'either', the second syllable of **@-twé @-couN** 'experience' and the first syllable of **hcau´ pyi´-kìN-thÈ-lÈ** 'perfect'.

The tendency to lose the laryngeal component of stopped and creaky tone in sandhi in E. Burm. is directly at variance with the information about (or transcriptions of) St. Burm. found in Okell and in other textbooks. According to those sources the loss of laryngealization in St. Burm. is specific to syllables which weaken to toneless shwa-syllables. In E. Burm. sandhi-conditioned loss of laryngealization is not at all dependent on weakening in that sense, and it does not entail a loss of tone either. The syllable in question retains a high pitch contour, which either stays high or drops more or less rapidly. There does not occur a coalescence between stopped and creaky tone under these circumstances, since the contours are somewhat different. The "stopped" tone exhibits either no pitch drop or a short and extremely rapid pitch drop; this is the common E. Burm. pronunciation of such indicative forms as **cai´-tE** 'likes (it/him/her)', **cau´-tE** 'is afraid'. Such a pitch drop occurs with the creaky tone as well, e.g. in **nú-dE** 'soft', but in this case the syllable is generally of much longer duration, and the pitch contour spreads over it and is accordingly much more slowly dropping with the creaky tone than with the stopped tone. We may state tentatively that in sandhi these two tones are distinguished primarily in terms of *brevity* versus non-brevity.

(ii) Word-final realizations of the stopped and creaky tones: the stopped tone and the creaky tone have quite different reflexes in this position than in sandhi. Word-finally they are both realized with a high-pitched stretch of short duration and with a final glottal closure. It is my impression that the general realization of the creaky tone in this position is just like that of the stopped tone, i.e., in final syllables there is essentially complete neutralization between these two tones (though *not* necessarily between syllable-types, see the remarks on tense versus lax vowels in Section 3 below).

The stopped tone may be exemplified by St. Burm. **ti´** 'one', **cai´** 'to like', **cau´** 'to fear', **cE´** 'chicken', **sa´** 'spicy'. The creaky tone in turn may be exemplified by St. Burm. **ú** 'egg', **nó** 'milk', **hyí** 'to have/exist', **né** 'day', **hlá** 'to be pretty'. As stated above, these two structural sets combine into one more complex set in final position in E. Burm. Occasionally, however, syllables belonging to these two overlapping sets differ segmentally in their termination.

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For example, **ká** 'dance' is always spoken with a glottal termination, but at least one of my informants pronounces **ka´** 'card' with a glottalized dental final stop in accordance with its etymology (cf. English *card*).

In E. Burm. the equivalents of both the "stopped" and the "creaky" tones of St. Burm. thus stand out from the rest of the system by a shared feature of high or high-falling pitch in sandhi position and by a shared feature of glottal closure before an open boundary. One may further argue that there is a dichotomy of different vowel quantities in these checked syllables, the "stopped" tone being characterized by ultra-brevity of the vowel (in part manifested by lax vowel quality) in contradistinction to the normal vowel duration occurring with the "creaky" tone. This quantity difference is neutralized word-finally in favour of a short vowel.

The system may be restated on this point as having only one high (-dropping) tone, the corollary being that vowel quantity has become marginally distinctive within this particular category. It might be preferable to refer to these prosodies by a maximum specification of each. Accordingly, that of **ti´** and of **cau´** (as in **cau´-tE**) is "short high(-dropping)/stopped", and that of **ú** as a single word and **ú** in the first syllable of **nú-dE** is "nonshort high (-dropping)/stopped". For the sake of convenience, however, I shall stick to "stopped tone" and "creaky tone" as identificatory labels, although these are actually quite misleading for E. Burm.

(b) The plain, i.e. non-laryngealized, tones.

Switching now to the plain tonal categories, we observe that the rhyme of syllables with these tones is always entirely sonorous (consisting of an oral or nasalized vowel, or a vowel plus nasal), both finally and in sandhi. Such syllables exhibit a binary contrast between non-raised tone and raised tone, the former being Okell's unmarked "level tone", as in **bouN** 'drum', and the latter being his "heavy tone", as in **boùN** 'bomb'.

As is quite normal in tone languages of this linguistic area, the pitch levels and even the shape of the pitch contours varies quite considerably depending on the adjacent types of syllables, on the position of the particular syllable relative to the end of the phonological stretch, and on sentence intonation. Sweeping statements about the characteristics of the Burmese tones, such as can be found in the various textbooks, therefore do not give a precise picture of their actual phonetic behaviour (this complication is explicitly mentioned in the section on Tones in Okell's *Reference Grammar*). Still, I find that the characteristics of these tones, and of the "heavy" (= raised) tone in particular **are so much at variance with general statements about St. Burm., that it warrants a separate phonetic statement about E. Burm.**

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The raised ("heavy") and non-raised ("level" or "low") tones may be exemplified by words such as **jà** 'itch', **mò** 'rain', **bì** 'comb', **thwà** 'go' (in E. Burm. actually pronounced as **twà**), **kà** 'motorcar', **sà** 'eat' for the raised tone, and **pu** 'hot', **la** 'come', **so** 'wet', **sa** 'letter', or both syllables of **nayi** 'clock' for the non-raised tone. The two tones contrast directly in the initial syllable of **nà-lE-dE** 'understand' vs. **na-dE** 'it hurts'. Phonologically speaking, their distribution seems to be like in St. Burm. The tonal phonetics is somewhat aberrant, however.

As for the pitch contour of the raised tone, E. Burm. does not have a consistently high or high-falling pitch as reported for St. Burm. What defines this tone in E. Burm. is, according to my auditory assessment, not a constant contour but a relative difference of pitch level such that *at some point* the pitch is higher than in syllables with non-raised tone. The phonetic realization of the raised tone is, on the other hand, highly dependent on the position of the syllable within an utterance (I am here referring only to short utterances characterized by a single intonation contour). Here are a few examples by way of illustration:

> In **nà-lE-dE** 'understand' the pitch of **nà** rises considerably (in contradistinction to the level pitch of **na-dE** 'it hurts'). The same is true of **thwà** 'go' in **thwà-mE** 'want to go' and of **sì** 'marketplace' in **sì thwà-mE** 'want to go shopping', whereas the centrally located **thwà** in the last-mentioned utterance has a fairly high pitch.

The only position in which I regularly note falling pitch on a syllable with the raised tone, is utterance-finally. It also occurs before phrase boundary, however, and sometimes even internally in a complex word, particularly if the word is read aloud (more or less in dictation style) from a written list. In final position I hear a strongly falling pitch particularly if the syllable in question occurs after a non-raised tone, as with the negation particle **bù** in statements such as **m@-pu bù** '(do) not (feel) hot' or **m@-sà-de bù** '(am) not hungry yet'; in such a case the pitch of the final syllable starts from a level well above that of the preceding syllable and then drops considerably.

As mentioned earlier, a sequence of words may split up tonally into phonological stretches with separate pitch contours. Phrase-level or clause-level intonation then becomes particularly relevant (I cannot so far give any valid statements about intonation on these higher grammatical levels). The utterance **t@-pa´-@-dwìN pyaN-la-oùN-mE** 'I will come back in one week', for example, may be spoken as two stretches, and accordingly with a falling tone on the stretch-final syllable **dwìN** and a rising tone on **oùN**, the first raised tone in the second stretch.

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When a monosyllabic word with the raised tone is spoken in isolation, e.g. in order to explain to an outsider what something is called in Burmese, its pitch contour may vary all the way from rising to falling; in this case it is not *a priori* well defined whether the word is to be understood as part of an incomplete utterance or has status of utterance by itself. A request such as **hti** '(hand me the) umbrella!' is spoken on a raised, slightly falling pitch.

In terms of phonological contrast it is interesting to compare the distribution of the falling and non-falling allotones of the plain raised tone in E. Burm. with the behaviour of the high, i.e. stopped and creaky, tones, as stated above. Stretch-internally (in sandhi position) these are neither "stopped" nor "creaky" but characterized by a high, more or less falling pitch, i.e., by a faster and a slower pitch drop, respectively, but they do not merge with the plain raised tone. The latter may be rather high-pitched as well but if it is adjacent to one of the high tones it tends to differ from these by exhibiting a slightly lower pitch level. As for declining pitch, it is significant to observe that this feature is absent when the plain raised tone occurs stretch-internally; this obviously helps to keep it distinct from the high tones. If we turn now to final position, the stopped and creaky tones merge prosodically into a high tone cut off by glottal closure. This is the very position in which the plain raised tone always shows a falling pitch.

It must be emphasized that the paragraph above about the differences between high tones and the plain raised tone in various contexts is extremely tentative. Considering the amount of variation in pitch levels and pitch movements it is difficult to make solid generalizations about the auditory impression, and a statement based on fundamental-frequency measurements would require masses of material representing the various relevant tonal and rhythmic contexts.

Switching now to the non-raised tone, one notes that it is sometimes called "low" in textbooks on Burmese, but that term might imply that it drops below the typical voice level (like the Thai low tone), which is not the case, at least not in E. Burm. As for its variability, it may be mentioned by way of illustration that a sequence of two syllables with non-raised tone before a boundary, as in **ba-dha** 'language', **mye-bouN** 'map', **pye-za** 'bill', often has a perceptibly higher pitch on the penultimate syllable than on the last syllable.

The preceding paragraphs might convey the impression that the four tones are neatly distinguished in E. Burm., except for the neutralization of two of them in final position. It is, however, my experience from listening rather extensively to tones in E. Burm. that although the phonological distinction of four tones is structurally stable there is much phonetic overlapping among their realizations, expecially perhaps between the two plain tones. This seems

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to be the case both stretch-internally and in monosyllabic utterances (where intonation may override the tonal status of the syllable).

Finally, a few remarks about the so-called "toneless" syllables, i.e., reduced syllables with an open schwa-vowel, which occur just as in St. Burm. although the presence or absence of such reduction in individual words may be somewhat different over the language varieties. Reduced syllables always occur before a tonal syllable. They have no inherently fixed pitch level; what defines them is the reduction in segmental structure manifested by their very short, neutral vowel. If these syllables are called toneless, this term must be understood as a strictly phonological one. Alternatively one may say that these syllables exhibit a neutralization of all tones, just as their vowel represents a neutralization of all vowels. Their lack of distinctive tone does not, however, imply that they fall outside the range of pitch characteristics shared by the various types of tonal syllables. In fact the pitch of toneless syllables falls well within the pitch ranges of the distinctive tones and it varies considerably according to the tone of the following syllable. Reduced syllables are thus typically high-pitched when adjacent to a high-pitched syllable, as is true of the first syllable of **hp@-na´** 'shoe' and of **th@-na´** 'gun' (this is one of the points that were corroborated by my later check with an adult speaker).

2. Affrication, aspiration and voicing in consonants.

Like the section above, this section does not at all attempt to give an overall picture of the sound system of E. Burm. It picks a few issues which are conspicuous both in their own right and when one looks at E. Burm. pronunciation within the framework of normative St. Burm.

For the sake of convenience of reference, a survey of the consonant inventory of Burmese in syllable-initial position will be presented by way of introduction. Symbols given in parentheses indicate consonants which are unattested or only marginally attested in my data for the language variety under consideration.

There are four points of articulation in stops and nasals, and there are three types of articulation in stops, two in nasals:

hp	**ht**	**hc**	**hk**
p	**t**	**c**	**k**
b	**d**	**j**	**g**
hm	**hn**	**(hny)**	**(hng)**
m	**n**	**ny**	**ng**

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The nonnasal continuants form more irregular sets, which are here lumped together:

	(hs)		**h**
(hw)	**(th),s,hl**	**hy**	
w	**(dh),z,l,(r)**	**y**	

It is possible to argue that syllables which do not begin with any of the consonants listed above have an initial glottal stop consonant (all syllables thus consisting of onset+rhyme). In distinct speech there is indeed an audible glottal stop at such syllable boundaries, for instance in the sequence "VN V" of **ìN à m@-hyí bù** 'weak' or the sequence "V V" of **@-pO eìN-ji** 'coat'. As one would expect, the glottal stop may drop when syllables are closely conjoined (in a phonological stretch), as in **yu-oùN-mE** 'want more (of the same)'.

The first subsections below (a,b,c) deal with manner of articulation and with sandhi-conditioned de-aspiration and voicing. Subsequently (sections d,e,f) some more specific phenomena will be discussed.

(a) The nature of voicedness and voicelessness in obstruents.

The general picture one gets from standard textbooks of Burmese is that the language has a three-way manner distinction between (I) aspirated voiceless, (II) unaspirated voiceless, and (III) (unaspirated) voiced. This obtains both in stops, e.g. **hp, p, b**, and in sibilants, e.g. **hs, s, z**. All of these obstruents occur syllable-initially and intervocalically in sandhi, but not in final position. As for the positions in which obstruents do occur, it is somewhat tricky to establish to what extent the various consonant types are mutually distinct since Burmese has a lot of context-conditioned alternation in voicing and aspiration, which is true of E. Burm. as well (such alternation is considered in section (c) below).

E. Burm. agrees basically with St. Burm. in having a three-way manner distinction in stops, but it has only a two-way distinction of voicing in sibilants (this subset is discussed in section (d) below). As for stops, the aspirates **ph, th, hc, hk** are noncontroversial in terms of phonetic specification of their (basic) manner of articulation: they are voiceless stops with forceful postaspiration, or in a different terminology: with a considerable lag in voice onset time (VOT). The specification of the other two sets: **p, t, c, k** and **b, d, j, g** is more complex, however.

The set **p, t, c, k** is indisputably defined by unaspirated voicelessness. When not subject to (any degree of) voicing these consonants have a true fortis

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character with a rapid and forceful release of the burst. What is most noteworthy is that **p** and **t** are often audibly tense in terms of a secondary articulation, probably pharyngeal narrowing, which influences the transition to a following front vowel in a very characteristic way (a similar phenomenon is known from Standard Thai). Typical instances are **pè-bì** 'paid', **pei´** 'shut', **ti** 'serious (mood)', **teìN coùN** 'sweep'.

Finally, the set **b, d, j, g** present the most vexing picture in terms of voicing. These stop consonants would be expected to be strongly voiced so as to contrast effectively with the voiceless stops, but in fact their closure phase is often essentially voiceless whereas the transition to the following vowel is characterized by breathiness (a type of articulation well known from many languages of India). This feature of breathiness often extends (as "murmur") all through the vowel. Typical instances are the labial of **bai´** 'stomach (belly)', **bouN** 'drum', **bù** 'tin (box)', the dental of **da-lau´** 'so', **mouN-daìN** 'storm', and the velar of **b@-gaN** 'plate', **gaùN** 'head'. Note that breathiness is not a feature of a particular tone; it is associated with a voiced initial and may be heard even in syllables with initial sonorants.

All of this means that the sets **p, t, c, k** and **b, d, j, g** may contrast in terms of breathiness rather than in terms of voicing. The words **pà** 'cheek' and **ba** 'what?', for example, form a segmentally minimal pair differing in the voice quality during the vowel, whereas both may be pronounced with a voiceless initial stop. Voicing in itself does not turn **p** into the breathy **b**; no matter whether a word such as **loùN-pà-pà** 'worn out' is pronounced casually with more or less voicing on the stops of the last two syllables (e.g. with both fully voiced: **loùN-bà-bà**,) the syllables in question remain segmentally distinct from the breathy second syllable of **g@-ba** 'world'.

It would be interesting if the breathiness of categorially (etymologically) voiced stops actually keeps these consistently apart from categorially voiceless but possibly secondarily voiced consonants. The data suggests that there may indeed be a tendency of this kind in E. Burm. It complicates the picture enormously, however, that (i) there is anything but a complete correlation between the Burmese spelling norm and the manner of articulation of initial stops in St. Burm., and that (ii) E. Burm. often deviates from authoritative transcriptions of Standard Colloquial Burmese with respect to the pronunciation of these stops. Such discrepancies are found in great numbers with palatals and velars.

With the labials and dentals, breathy pronunciation seems to occur predominantly with spellings which typically represent the categorially voiced stops ***b, d*** **in Burmese (e.g. the twenty-third and twenty-fourth consonant letters, as used for *b*). It does, however, also occur in some words spelled with**

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p or ***t*** (i.e., the twenty-first and sixteenth consonant letters of the Burmese alphabet), although these two letters mostly represent voiceless fortes or the secondarily voiced counterparts of such consonants.

(b) Alternating or non-alternating aspiration and voicing.

In St. Burm. voiced stops occur frequently as assimilated or weakened reflexes of both unaspirated and aspirated voiceless stops. They even arise by optional distant assimilation (regressive voicing harmony, Okell's "extended voicing"). E. Burm. is no exception to this. There are, however, numerous deviations from the pattern one would expect from Okell's rules for St. Burm. and particularly from the pronunciations given in introductory textbooks.

Very often, the E. Burm. speakers I have been consulting or listening to, use unexpected non-weakened aspirates medially in compound words, for example. In some instances it may seem that this depends on whether the word is felt to be an everyday word or a word from more formal language; that might explain why one speaker said **lá-gá** for '(monthly) pay' versus **hnga-hká** 'rent' although both are supposed to be spoken in St. Burm. with **gá** < **hká**. That does not suffice to account for the lack of weakening, however, the general picture being that aspirates weaken much less than is stated for St. Burm. This will be exemplified for velars and palatals below.

To take an everyday word such as 'ice' from **ye+hkÈ**, this would be expected to have voicing, and indeed it is rendered by one of my reference sources for St. Burm. as **ye-gÈ**. In my data for E. Burm., however, it is almost consistently spoken as **ye-hkÈ**, not in dictation style but as a conversational pronunciation (this was corroborated when I later rechecked forms with an additional, adult speaker; paradoxically, my only example of the pronunciation **ye-gÈ** is from a recording of a word list read aloud; when asked afterwards the speaker said that **ye-khÈ** and **ye-gÈ** could be used interchangeably).

Interestingly, the modal element **hciN** 'want to', which occurs in restructured form as **hyiN** in E. Burm., never seems to undergo voicing of its initial to either **j-** or **y-** (the former of which is the normal Standard Burmese pronunciation in numerous contexts, according to textbooks on Burmese). The fixed expression **the-ja-dE** 'sure' is spoken with an unweakened consonant in the second syllable, viz. a voiceless alveolopalatal sibilant as the reflex of **hc** > E. Burm. **hy**.

There is no point in going into further detail about this kind of variation now since no clear pattern emerges, and since St. Burm. in itself has considerable variation over forms with and without weakening and voicing.

It is more interesting to consider what happens to "voiceable" consonants after a syllable-final glottal stop since, on the contrary, E. Burm. has more

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voicing than St. Burm. in this particular position. In fact, Colloquial Standard Burmese is said not have voicing at all in such syllables (Okell, *loc. cit.*, p. 13.). In E. Burm., however, the dropping of the glottal stop in sandhi position (i.e., internally in a phonological stretch) creates an environment favouring voicing which thus occurs in stark violation of the St. Burm. constraint. In forms with the tense particle **tE**, for example, E. Burm. speakers produce a VCV-sequence with an extremely short (and high-pitched) first vowel followed by a short and voiced [d] and a long final vowel; this is true of a form such as St. Burm. **tha´-tE** 'kill' (pronounced [´tædE:]. Similarly, **m@-hpyi´-tÓ-bù** 'not any more' is spoken with a voiced [d] in the third syllable. There is, however, another possible pronunciation, viz. with assimilation of V´+C into [VC:]; according to one informant, **hci'-tE** 'love' can be pronounced either with [-d-] or with [-tt-].

There is something deviant about the negative particle **hpù/bù**. A preceding syllable with a glottal termination, e.g. **hou´** 'correct', frequently preserves its glottal component before this particular morpheme, just as in St. Burm. According to standard sources one then expects **hpù** with a voiceless initial, e.g. **m@-hou´ hpù** 'no'. All my speakers, however, deviate from the norm on this point and consistently say **m@-hou´ bù**, and similarly **m@-kai´ bù** 'I have no (head)ache', **m@-ei´ bù** '(I am) not going to sleep'. I never hear **hpù** in casual style although the speakers are familiar with this pronunciation.

(c) Aspirated sonorants.

As in St. Burm., there is a contrast between plain and aspirated sonorants, although I have recorded it only for the pairs **hm : m, hn : n, hl : l** and for **hy : y** of which the aspirated member is phonetically rather a sibilant (**sh**). Examples of the aspirates are **hmauN** 'dark', **hnei´** 'press (used e.g. for typewriting and massage)', **hle** 'boat', **hyí** 'exist, have'.

Aspiration often does not occur in words which are expected to have aspirated sonorants according to Burmese spelling or according to St. Burm. transcriptions in the sources I use for reference. Strangely, E. Burm. has (developed) a stable contrast between **hni´** 'two' and **ni´** 'year' although both are supposed to have aspirated **hn**. Words with expected aspirated palatal and velar nasals **hny, hng** occur in my data with plain voiced nasals, e.g. **nyú-dE´** for **hnyó-da´** 'charm', **nyèiN** for **hnyèiN** 'extinguish'. Sporadically, aspiration occurs in words which are not supposed to have it; such hypercorrection is consistent with a tendency for aspirated and unaspirated sonorants to merge into one set.

Altogether, the distinction between aspirated and unaspirated sonorants is rather shaky in E. Burm. (as apparently more widely). By far the most

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conspicuous distinction between **hlá-dE** 'be beautiful' and **la-dE** 'come' is one of tone; less conspicuously, the former word is spoken with more or less audible aspiration (one grown-up speaker insisted that clearly aspirated **hl** is preferable). The distinction becomes particularly tricky with **hl** versus **l** because even plain **l** often has audible lateral friction noise. There is likewise often friction noise in the palatal glide **y** but there is no possibility of confusion here. If the alveolo-palatal sibilant is taken as the aspirated counterpart of **y**, as suggested by Okell's transcription **hy**, that solution is not supported by the pattern of possible overlapping. There seems to be no variation in E. Burm. between **hy** and **y** whereas there is extensive variation between **hy** and the aspirated palatal stop **hc**, see (e) below.

In E. Burm. the aspirated sonorants become plain voiced sonorants in sandhi. This is witnessed by forms such as **lE´-hma´** 'ticket', spoken casually with intervocalic geminate [mm] arising from assimilation of **´+hm** ([mhm] is possible in more distinct speech), and **myE´-hna** 'face', spoken with intervocalic geminate [nn] arising from assimilation of **´+hn** (for the latter Okell p. 7 gives the St. Burm. pronunciation ***mye-hna*** with loss of the glottal stop but retention of the aspiration, in contrast to the assimilation of **ei´-me** 'will sleep' to ***eim-me***; the generalization for St. Burm. is that the aspirate consonants ***hng, hn, hm, hny, hl, hw, hy*** are all "not voiceable", Okell p. 13).

(d) The pattern of dental obstruents.

This set presents the most vexing situation within the consonant system. St. Burm. is described as distinguishing between a set of pure stops **ht, t, d** (voiceless aspirated, voiceless unaspirated, and voiced) and another set of dental obstruents **th, dh**. As for the latter set, Okell (p. 8-9) describes ***th*** as a "voiceless dental fricative, sometimes affricate" and ***dh*** as a "voiced dental fricative, sometimes affricate". In Upper Burma I have indeed heard such affricates, and similarly in the speech of Shans with higher education. In local E. Burm. usage, however, I have never heard fricative or affricate pronunciation in the words transcribed with **th, dh** for St. Burm. What occurs instead is a dental stop, which is consistently unaspirated and may be voiced or voiceless. Thus I hear the same initial in, e.g., **thí-dE** 'know' and **ti´** 'one'. For **thwà-me** 'will go' I invariably hear the equivalent of **twà-me** from locals (adolescents as well as adults); a pronunciation with voiced [d] occurs in sandhi but it is always a pure stop consonant. Similarly, I do not hear any reduction of **d** to fricative **dh** in particles whose vowel is reduced to schwa, such as is reported for St. Burm.

One might speculate that if E. Burm. has no dental (nonsibilant) fricatives there must be some other difference between the expected stops and the

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expected fricatives or affricates, e.g. that the point of articulation is different, or that there is a difference in the degree of apicality in the tongue-tip gesture itself. With the young people I have been observing most closely, however, I have not so far been able to ascertain any such difference. The E. Burm. counterparts of St. Burm. **d, t** are very clearly dental just like the counterparts of **dh, th**. *Thus the two syllable-initial stops in* **tha´-tE** *'kill', are both* unaffricated and conspicuously dental (both articulated with the tongue-tip visible from the side; an equally advanced tongue-position occurs with the aspirate **ht**, as in **htì** 'umbrella'). There may, however, be variation (allophony) dependent on the vowel context; in **thi´-to-dhì** 'pear' with three dentals, all spoken as stops, the medial one sounds as if its tongue position is less advanced than that of the initial and final ones.

Another putative difference between **t, d** and **th, dh** might be provided by the breathiness of lenis stop combinations which was described in (a) above, since the E. Burm. stop pronunciation of **dh** might not share this feature. This is an unsettled issue; my data contain several instances of **dh** pronounced as a stop but so far I have noted breathiness in only one of these words: **dh@-jà-loùN** 'sweets'.

With the data available this is all that can be stated so far about the behaviour of the Burmese dental fricatives in E. Burm. I suppose that the consistent pronunciation of dental stops instead of fricative or affricate **dh, th** constitutes the most conspicuous segmental difference between E. Burm. and St. Burm.

E. Burm. has a set of dental sibilants, however. Of the set **hs, s, z** occurring in St. Burm., only **s, z** (voiceless - voiced) are heard in E. Burm., as this is one of those varieties of Burmese which have no distinction between aspirated and unaspirated sibilants. Words with **s** or **hs** according to Okell's notation are all spoken with a plain voiceless sibilant. For example, **sE´-ku** 'paper' and **hsÈ-tE** 'to swear' begin with the same consonant.

The place of articulation of the sibilants **hs/s, z** is often very advanced, i.e., strictly dental; this is true, for example, of the initial voiced [z] in **zè** 'market' or **b@za´** 'mouth' and of the medial voiceless geminate [ss] arising from **´+hs** in such a word as **pai´-hsaN** 'money'. This very advanced articulation of the sibilants falls in line with the absence of fricative pronunciation of **th** in E. Burm.

(e) Palatal obstruents.

St. Burm. has a category of palatal (more or less affricated) stops: **voiceless aspirated, voiceless unaspirated, and voiced, which Okell renders respectively as *hc, c, j*, a transcription convention followed also in these *Notes***

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(here as elsewhere, the symbol **h** for postaspiration is placed before the consonant symbol in question in accordance with Burmese transliteration practice). These occur more or less identically in E. Burm. Unlike the information given by Okell (p. 8), I do not hear unaspirated **c** - the **ky** of an alternative transcription system - as a true affricate but as a palatal stop with the friction noise typical of palatal stops worldwide (because of articulatory constraints the explosion of a palatal stop is longer than that of, say, a dental or labial, but that by itself does not warrant transcribing or describing it as an affricate).

The aspirated palatal **hc** is, on the other hand, strongly affricated, and in E. Burm. there is a strong tendency to weaken **hc** to a fricative, especially intervocalically. In several instances, e.g. the second word of **ye hcò** 'bathe', fricative pronunciation of **hc** (as if it were **ye hyò**) is prevalent according to my impression. Significantly, the modal element **hciN** is invariably pronounced as **hyiN**, never as **hciN**, e.g. **ei´-hyin-dE** 'is sleepy'. More surprisingly, I hear **hy-** pronounced as **hc-** in several words, e.g. **hcau´** for **hyau´** in **làN hyau´-tE** 'walk', **hcE´** for **hyE´** 'shy', **ng@ hcíN** for **ng@ hyíN** 'eel'. The minimal pair **hci´** 'love' versus **hyi´** 'eight' shows bilateral overlapping, the former often having a fricative in casual pronunciation, and the latter conversely an affricate in the distinct pronunciation of some (perhaps only very juvenile) speakers.

All of this suggests an ongoing coalescence of **hc** and **hy**, though with idiolectal fluctuation and with differences depending on speaking-style. Speakers when reflecting about the just-mentioned minimal pair claim that the two words are distinct and pronounce them accordingly.

(f) Articulatory characteristics of voiced labials.

There are a couple of minor phonetic observations to be made about the articulation of voiced labial consonants. These characteristics may be shared to a greater or lesser extent with St. Burm. Firstly, the stop **b** when in medial position, as in **lebìN** 'neck', often seems to weaken to a bilabial fricative [ß]. It still remains qualitatively distinct from the labiovelar (rounded) glide **w**, as in **@waiN** 'something round', however.

The glide **w**, in turn, is phonetically interesting by having a labiopalatal variant (i.e., with the tongue pushed forward almost as in **y** but with liprounding) when it occurs as the second member of a consonant cluster. This occurs after dental or palatal consonants, as in **nwè** 'warm', **hcwè** 'sweat', **mò ywa-dE** 'it rains', whereas **w** is truly labiovelar after labials and velars, as in **z@bwÈ** 'table', **hkwè** 'dog'.

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3. PATTERNS OF VOWEL CONTRAST AND MERGER.

By way of introduction, the inventory of vowels will be presented for the sake of clarity, as a frame of reference for the remarks to follow. There are seven contrastive nonnasal monophthongs:

i **u**

e **o**

E **O**

a

By and large, these vowels of E. Burm. match those of St. Burm. in syllables with plain (non-laryngealized) tones. There are, however, some more sporadic differences in vowel quality for which I have no proper *generalizations so far, e.g. a tendency to raise vowels after a palatal, as in the* first syllable of **nyú-dE´** for St. Burm. **hnyó-da´** 'charm'. With some speakers, a related tendency applies to **á** after palatal initial consonants and clusters, so that in this particular type of environment there may be extensive overlapping in the low front region: **E´/a´/É/á** (a merger from which **á** is otherwise excluded, see below). I have heard such fronting in **dh@-bÒ-cá** 'admire', **hpyá** 'across', **nyá** 'evening', **nyá-ne** 'afternoon', **pyàN-hmyá** 'average', **pyÒ-pyá** 'tell', and in the E. Burm. negative pronominal element **myá** (cf. St. Burm. **hmá**). The tendency to front **á** after palatals is not shared by all speakers, however, and I have never heard such fronting of **á** in **yá** 'can' where it is preceded by a single initial glide.

In syllables with nasality in the rhyme the inventory of monophthongs shrinks to the three vowels at the extreme corners of the vowel space: **i**, **a**, **u**. Of these nasalized vowels the high ones are somewhat lowered compared to their oral counterparts, and the low one is strongly fronted. The inventory may thus be presented by a skewed diagram:

i **u**

a

In the so-called tonally neutral or reduced syllables only one vowel occurs: a **rather low, almost [a]-like shwa-sound (here symbolized as "@").**

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In full syllables with high = laryngealized tones and/or with nasality in the rhyme there is an additional inventory of four diphthongs, which are mutually contrastive and also contrast with the monophthongs above:

ei **ou**

ai **au**

Examples of most of the syllable-nuclei tabulated above were given in the introductory section of this paper; others are given below.

The distribution of the vowels and diphthongs listed above can on the whole be derived unambiguously (by rule) from the pronunciations stated for St. Burm., but there are important discrepancies between the two norms, as presented in the various subsections to follow.

Altogether, both the phonetic specification and the phonological analysis of the vowel system raises a number of interesting issues which cannot be dealt with in depth in this short survey.

One particularly tricky problem is vowel length, which must be given some consideration before the sections dealing with vowel quality.

In standard presentations of Burmese there is no specification of quantity as a phonological category, and even phonetically vowel length does not seem to be given much attention. A stated in the section on Tones above, however, syllables with "creaky" and "stopped" tones actually differ in terms of quantity when they occur internally in phonological stretches (in sandhi-position). It was suggested above to speak of "nonshort" versus "short", rather than "long" versus "short", since it is the extreme brevity of vowels with the stopped tone rather than the longer or shorter duration of other vowels that is conspicuous. No matter whether the opposition is specified one way or the other, however, it makes sense to speak of a correlation of quantity at least in this variety of Burmese.

Non-laryngealized syllables with full vowels have rather varying duration depending on the overall rhythmic pattern (an analysis of which is not at all attempted in these *Notes*). There may be a general tendency for syllables with the raised tone to have a longer vowel than syllables with the non-raised tone. More significantly, however, certain post-nominal or post-verbal particles have consistently very short vowels and a low tone as against other particles with longer vowels. Examples of short vowels are **bi, go, la** (for expected **là**, question particle), **mE**, as in **tO-bi** 'that's enough', **mìN-go** '(to) you (obj.)', **hou´-la** (for **hou´-là**) 'is that so?', **sà-mE** 'going to eat'. Examples of the longer vowels are **tE/dE, lÈ**, as in **hlá-dE** 'beautiful', **bE thwà-lÈ** 'where did

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he/she go?'. The combination of two particles, one from each category, may be exemplified by **ne** with the longer duration plus **ti** with the short duration, as in **pyè-ne-ti** 'is running'. - The tag-question particle **nO** seems to be spoken with a fairly short vowel but with intonational pitch movement.

It requires further analysis to determine whether there is really a phonological contrast of length involved in the case of short final particles. If so, that might be compared with the quantity correlation in syllables with high = laryngealized tones.

The reduced syllables (with "neutral tone" and a schwa-vowel) always have a very short vowel. E. Burm., however, sometimes does not have the reductions of pretonic vowels to schwa (my "@") that have been stated for St. Burm. For example, one of my E. Burm. speakers consistently pronounces the word for 'Red Indian' as **k@làhsiN**, i.e. without reduction to **k@l@hsiN**, the form given by Okell (this very speaker is a young male teenager who might be expected to have talked a lot about Red Indians). Although syllables may be reduced in terms of their consonantism, they sometimes (unexpectedly) retain distinct vowel qualities in spite of this. I have no clear picture of the tonal behaviour of semi-reduced syllables, nor of their pattern of distribution. The vowel qualities of reduced syllables are not further considered below.

The remarks below are limited to three areas: (a) vowels in syllables with high = laryngealized tones, (b) nasalized vowels, and (c) diphthongs. From a contrastive (comparative) point of view, especially the first of these issues is of importance.

Vowels in syllables with high (laryngealized) tones.

As in St. Burm., a number of different syllable nuclei, monophthongal as well as diphthongal, occur in E. Burm. with these two tones. The interesting question is how the vowels and diphthongs relate to those in syllables with non-high tones.

The most important observation to be made about the variety of E. Burm. studied here, is that in its most colloquial form it has a complete merger of St. Burm. **E´** and **a´**; thus **m@nE´** 'morning' and **hp@na´** 'shoe' sound alike except for the initial. This merger is in force also if the glottal termination of the checked syllable is lost in sandhi: **hyE´-tE** 'shy' and **tha´-tE** 'kill' (both spoken with an extremely short first vowel and with voiced [d]) also sound alike except for the initial. Accordingly, with speakers who use this colloquial variety consistently we get the same vowel quality in the last two syllables of **à-la´-yE´** 'holiday', of which the medial syllable is open and the final syllable checked, according to sandhi rules, and similarly the same vowel quality in the two syllables of **ya´-kwE´** 'quarter (of town)' and of **lE´-hma´** 'ticket'. The

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vowel quality of this merger vowel is intermediate between the typical manifestations of **E** and of **a** in other syllable types (in IPA-notation the vowel of **E´/a´** is [æ]). Some speakers, however, are closer to St. Burm. usage in that they pronounce **a´** without fronting, at least in some words

As stated in the section on tones, E. Burm. has a partial merger between the St. Burm. stopped and creaky tones, both appearing as a stopped, high-pitched prosody outside sandhi position. The phonetic merger of these tone categories does, however, *not* mean that they have the same phonological pattern; for one thing, the E. Burm. reflex of the creaky category permits a nasalized vowel: **hkwíN** 'permit', just as in St. Burm., whereas this is incompatible with the E. Burm. reflex of the checked syllable.

As for the **E/a** complex, the partial tonal merger is accompanied by an asymmetric vowel merger. The quality of **É**, as in the second syllable of **tau´-tÉ** 'gecko', is the same as that of the merger **E´/a´**, i.e. [æ], but **á** does not generally enter this merger **E´/a´/É**; it is on the contrary spoken as a low, central or rather back vowel. Examples of the latter vowel are (both syllables of) **lá-gá** 'pay, installment' and (the last syllable of) **mí-bá** 'parents'. Unlike **E´** and **É**, **a´** and **á** thus contrast in terms of vowel quality. A perfect minimal pair is provided by **lE´-hma´** 'ticket' and **lE´-má** 'thumb' of which the former has the fronted vowel in both syllables (sounding just as if it were **lE´-(h)mÉ**) but the latter the non-fronted vowel **á** in the second syllable. This fronting of **a´** may be interpreted as a reflex of the same feature of laxness as found in **i´**, **u´** and thus ultimately as a reflex of shortness.

Altogether, the occurrence of mutually contrastive vowels rises in syllables with high tones, because the two high, i.e. laryngealized tones are found to have different impacts on vowel allophony even in final position where they seem to merge tonally. The contrast is then in part upheld by differences in vowel quality.

As for **i** and **u**, these vowels have tense allophones when occurring with the creaky tone but lax allophones with the stopped tone. Thus there is a minimal contrast of tense versus lax vowel in **lú** 'rob' versus **lu´** 'vacant' and in **sú** 'collect (money)' versus the second syllable of **le´-su´** 'ring on finger', and there is a similar tense-lax contrast in **cí** 'see' versus the second syllable of **kau´-ci´** 'sly'. The occurrence of this tense-lax contrast as a reflex of the tonal contrast seems to be regular across the vocabulary. Its qualitative component may contribute more to the distinction between the tone categories than the length component (sometimes I hear no clear length difference at all, even in the speech of an adult).

It is at present not clear to me how much the segmental vowel qualities here referred to as lax (i, u) differ from the vowel qualities here referred to as

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tense (**e, o**). It is my auditory impression from several lexical items that the lax vowels are so much lower than their tense counterparts that they approach the next series of tense vowels but they are laxed (i.e. less extreme) with respect to lip spreading versus liprounding. Thus it may be that the main difference between lax **u** and tense **o** resides in the stronger liprounding of the latter. The difference seems particularly small after a palatal. For instance, the vowel of **hpyi´** 'to be' is segmentally close to that of **@-hpye** 'answer', and the last vowel of **t@-nyi-t@-nyu´** 'unanimous' is segmentally close to the last vowel of **lu byo** 'bachelor'.

As stated in the section on Tone above, vowels in non-final syllables occurring with one or another of the two laryngealized tones are distinguished by length. The just-mentioned tense-lax difference in the high vowels may be viewed as a reflex of this; it is perfectly consistent with the suggestion that there is actually only one high = laryngealized tone in E. Burm. although it combines with brevity versus non-brevity to form two contrastive, complex syllable prosodies. Tenseness in high vowels is thus a reflex of non-brevity, and laxness a reflex of brevity, and the same interpretation is available for the fronting of **a´** versus non-fronting of **á**.

The definitive generalization, then, is that the extreme vowels **i, u, a** exhibit an allophonic difference *tense* vs. *lax* associated with the long vs. short high-tone categories. The tense-lax allophony does not apply to **E**, however; this vowel has no lax variant, and that helps to explain the overlapping between **E** and the lax allophone of **a** (which we encounter in the vowel-tone complex **a´**) since laxness in the case of this open back vowel means centralization and/or fronting.

At the same time this explains the non-overlapping ot **E** and the other allophone of **a** (the one that occurs in the vowel-tone complex **á**): the latter is a tense vowel (which here means: open, back) by virtue of its prosodic category and therefore cannot possibly partake in such a merger. Thus the asymmetry in the **E/a** merger is only apparent.

Nasalized vowels.

The following points of phonetic detail are worth mentioning although they hardly constitute any significant deviations from St. Burm.:

As for the non-low unrounded nasalized syllable nuclei **iN** and **eiN**, as in **ht@mìn** 'rice', **eiN** 'home'), the degree of openness of **iN** is auditorily fairly close to that of oral **e**, and the first part of **eiN** is in between oral **e** and oral **E**.

In terms of degree of openness, the nasalized vowel iN and the first part of the nasalized diphthong eiN can be compared, respectively, to the first and second syllable nuclei of è-dE 'be cold'.

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Back:dark, Text:mid :: mid-W:0.63, B-Peak:80 :: gamma:1.4, B:145, W:220

When occurring on diphthongs the feature of nasality is not always audible in casual speech, especially with "creaky" tone: **t@ hleíN**'one roll (e.g. as classifier for umbrellas)' may sound as **t@ leí**, for example, and I rarely hear **pauN-moúN** 'bread' as anything but **pauN-moú** or even **pau-moú**. The same tendency for creaky-tone syllables to lose nasality is reported by Okell (*loc. cit.*, §1.12, Note 3) to exist "in some parts of Burma, particularly in and around Moulmein".

As described also for St. Burm., the nasalized vowel **aN** (as in **pyaN** 'return') is a front vowel. In its E. Burm. realization, **aN** is close to being the nasalized counterpart of oral **E**, though somewhat more open; being strictly monophthongal the unit **aN** remains distinct from **eiN**.

When each of the nasalized vowels is followed by a consonant with oral closure, there occurs a "segmentalization" of a nasal consonant which is homorganic with the stop consonant, just as in St. Burm. (**gaùn-dE** 'is good', **m@ gaùm-bù** 'is not good' as against **gaùN** 'good' with nasalization only). In my data a similar vowel-nasal complex, though with a very short nasal consonant, can somethimes be heard as a pronunciation of "VN" even word-finally before a pause, i.e. outside of sandhi, e.g. **le-bìn** 'neck' (St. Burm. **le-bìN**), **sim** 'elephant' (St. Burm. **hsiN**), **@-dín** 'ready' (St. Burm. **@-thíN**), **hmyá-tá-dín-dín** 'reasonable' (St. Burm. **hmyá-tá-thíN-tíN**). Because of scarcity of observations I have not been able to make any generalizations about the point of articulation of such optional final nasals (note that in Burmese orthography, the two words **le-bìN** and **hsiN** above have the same consonant symbol at the end, suggesting a velar nasal). Most words with final **N** are always spoken with a nasalized vowel like in St. Burm., *not* with vowel + nasal; ex.: **ht@-mìN** 'rice', **tíN** 'should' (St. Burm. **thíN**).

Phonetic aspects of diphthongs.

In terms of sonority, **ei, ai, au, ou** are all falling diphthongs, the first two ending in a palatal offglide and the last two in a velar offglide. The symbolization of the latter two as **au, ou** e.g. in **pauN-moú(N)** (St. Burm. **pauN-moúN**) 'bread', is not phonetically precise since the last component of each diphthong has rather little rounding (though on the other hand it is not unrounded like the offglide in the diphthong *aï*, as in Shan or Lao). Moreover, the main vowel of **ou** is somewhat centralized.

Phonetically, one encounters diphthongs with rising sonority as well, namely as casual pronunciations of glide plus vowel in the sequences Cya and Cwa, as in **pyaN** 'return', **thwà** 'go'/'tooth', which may sound almost as (monosyllabic) **peaN, toà**. A diphthongal impression is sometimes conveyed also by combinations of **w** with vowels other than **a**, e.g. **@-mwè** 'body hair'

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sounding as **@-mòe**. Phonologically, however, the structure CGV (with G for glide) of these sequences is not at issue.

4. FINAL REMARKS

In the sections above I have outlined a number of salient features which characterize the spoken norm of at least some ethnic Burmese speakers in the northeastern part of the country. Throughout these *Notes* I have been citing a considerable number of illustrative wordforms or phrases, which were selected from a rather extensive collection of data comprising both transcriptions and tape recordings. By quoting these forms and generalizing about them I have attempted to demonstrate that the colloquial usage of the speakers I have consulted differs significantly from the usage codified in Okell's *Reference Grammar of Colloquial Burmese* and in various elementary textbooks on spoken Burmese.

Needless to say, critics may question the representativity of these data as well as my handling of them. I am fully aware that the speech of a few persons from one place does not tell the whole story about regional variation; their pronunciation might even include family-dependent or idiolectal idiosyncrasies. I have, however, found no reason to assume that their speech is aberrant from that of others from the same area; on the contrary it may be fairly representative (and perhaps on some points even representative for modern colloquial speech more widely). As for the use of teenage speakers rather than more mature people, I feel that exactly this choice is fortunate as it makes the observations more prognostic of prevailing tendencies in local usage than might be true of data from elder people, who may exhibit a more conservative pronunciation. In addition, young speakers are probably less influenced by notions about "correct" usage and less conscious about a deliberate choice of speaking-style.

To experts on Burmese it may seem a major weakness that I approach the language "from the outside", without having been initiated to the scholarly tradition of studying Literary and Colloquial Burmese from historical, descriptive and normative perspectives. Being a phonetician, however, I feel I could contribute with some unbiased observations. These are sometimes at variance with well-established notions in the field, and may perhaps have some empirical content for that very reason.

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