BURMESE ENGLISH ACCENT

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I. INTRODUCTION

As knowledge of the English language has become increasingly important in non-English speaking countries, many non-native varieties of English have developed due to the contact of English under various circumstances. In the case of Burma, during the British rule of the country from 1885 to 1947 English was used in the areas of government, law, and education (Han-Tin, 1990). Since Burma's independence, however, the Burmese language has been reintroduced in these areas and the use of English has diminished. The contact between the two languages has left Burma with Burmese English, which includes an accent as one of its characteristics. Little or no study has yet been done on English spoken by the Burmese. In response to the lack of research on Burmese English, this study will explore the characteristics of the Burmese English accent. The segmental and suprasegmental traits of Burmese spoken English will be described using the method suggested by Mohanan (1992) where a non-native variety of English is viewed as having a system of its own. This paper sets out to identify the phonological characteristics of Burmese English with the aim that this knowledge will assist in the comprehension of the English spoken by Burmese speakers.

Studies on non-native varieties of English such as the English spoken by the speakers of Japanese (Suenobu et al., 1992; Basson, 1988; Beckman and Pierrehumbert, 1986; Sheldon and Strange, 1982; Dickerson, 1975), Hebrew (Basson, 1988), Arabic (Munro, 1993; Eltrug, 1984; Flege and Port, 1981; Zughdul, 1979), Brazilian (Major, 1986), Dutch (Koster and Koet, 1993), Chinese (Juffs, 1990), Russian (Thompson, 1991), French (Flege and Davidian, 1984), and Hungarian (Nemser, 1971) among others enable speakers in the community of "World Englishes" to communicate with minimum misunderstanding. With the intention to familiarize other English speakers with the Burmese English accent, this paper will describe the characteristics of a strong Burmese English accent.

II. METHOD

1) Subjects

Fifteen English major students and three English instructors from Rangoon University volunteered to be the subjects for this study. All of them were Burman males who grew up speaking only Burmese and no other languages at home. A questionnaire was given to the subjects regarding

their age, level of education, total years of study of English, age at which English language learning began, and career goals.

The age of the students ranges from twenty three to thirty one. Except for one student who started at age four, the rest of the subjects started to learn English at ten years of age. In general, the instructors had studied the language three to five years longer than the students. All of the instructors had a bachelor of arts degree in English while three students were studying in the third year English major and the rest were in the fourth year. Most of the students' career goals were related to fields where the use of English language is required except for two who intended to work in fields which do not require the use of English.

2) Material

For the present study, word lists, isolated sentences, and a paragraph are selected for the data. 445 words[1] and a passage of 199 words[2] are chosen to elicit consonants, vowels, diphthongs and consonant clusters from the English phonemic system. These are presented to the subjects first for silent reading in order to familiarize them with the materials, and then for reading aloud for recording.

3) Transcription

The transcription is repeatedly checked by the author as well as by two graduate students who have taken linguistics courses including phonetics and phonology to ensure the maximum detail and accuracy.

4) Accentedness rating and grouping

Excerpts with the length of 40 to 55 seconds are taken from the reading passage. They are broken at natural pauses and are approximately 3 to 4 sentences long. Four isolated words read by each speaker precede each excerpt from the reading passage in order to familiarize the listeners with the speaker's voice. A group of eight students from Northern Illinois University (NIU) listen to the excerpts and rate the accent on the scale of one to five. The mean for each speaker is calculated and three groups are established from the ratings.

In the first group, the ratings range from a mean of 1.375 to 1.875, establishing the least accented group. In the second group, the means range from 2.75 to 3.625. The means of the most highly accented group range from 4.125 to 4.375. The present study focuses only on the speakers in the most accented group consisting of four students.

1) Phonemic inventory of segmentals

Consonants. The following twenty-six phonemes are found in the strong Burmese accent:

	bilabial	labio-dental	dental	alveolar	palato-alveolar	palatal	velar	glo
nasal	m			n			ŋ	
stop	p b			t d			k g	
fricative		f v	θ ð	s z	ʃ ʒ			h
affricate					tɕ, tʃ, dʒ			
liquid				l, r				
glide	w̥ w					j		

Vowels. All of the speakers use the following ten vowels:

	Close	Half-close	Half-open	Open
Front	i, ɪ		ɛ	
Central		ə	ʌ	
Back	u, ʊ	o	ɔ	ɑ

Diphthongs. The diphthongs are as follows:

/uə/ (or /uɑ/) as in "poor,"

/iə/ (or /iɑ/) as in "peer,"

/aɪ/ as in "my,"

/aʊ/ as in "now,"

/ɛə/ as in "there,"

/eɪ/ as in "name," and

/oʊ/ as in "boat."

2) Distribution of the phonemes

Consonants. (a) The following consonants occur in the syllable-initial as well as final position:

stops: /p/, /t/, /k/, /b/, /d/, /g/
fricatives: /f/,/v/,/θ/, /s/, /ʃ/
affricates: /tʃ/, /dʒ/
nasals: /m/, /n/
liquid: /l/

(b) The speakers use the following consonants in syllable-initial position:

fricatives: /ð/, /z/, /ʒ/, /h/, /w̥/
glides: /w/, /j/
affricate: /tɕ/
liquid: /r/

(c) The nasal cosonant /ŋ/ occurs only in the syllable-final position.

Vowels. All the vowels can occur as an onset as well as a nucleus.

Diphthongs. The diphthongs /aɪ/, /aʊ/, /ei/, and /ou/ occur as onsets as well as nuclei, or as a rime, as in "eye," "out," ate," "own," and "mine," "now," "make," and "poke." The diphthongs /uə/ or /uɑ/ (as in "poor"), /ɛə/ or /ɛɑ/ (as in "there"), and /iə/ or /iɑ/ (as in "mere"), on the other hand, occur only in a rime.

3) Consonant clusters

Syllable Initial Clusters.
    • *Two Consonants.* The following double consonants occur in the syllable-initial position:

		Examples
voiceless fricative + nasal	/sn/, /sm/	snow, smoke
voiceless fricative + liquid	/sl/, /fl/, /fr/	slow, flower, afraid
voiceless fricative + glide	/sw/	swim, sweet
voiceless fricative + stop	/sp/, /st/, /sk/	speak, steel, school
voiceless stop + liquid	/pr/, /tʰr/, /kʰr/, /pl/, /kl/	prefer, trace, crocodile, pleasure, clasp
voiceless stop + glide	/tw/, /kw/	twelfth, quartz
voiced stop + liquid	/br/, /dr/, /gr/	bread, draft, grasp
voiced stop + glide	/gj/	argue

    • *Three Consonants.* In the syllable-initial position, there is only a series of a fricative, a voiceless stop, and a liquid, the three of which occur as a cluster: /spl/ (as in "splendid"), /spr/ (as in "sprout"), /str/ (as in "stream"), and /skr/ (as in "screw"). Every subject inserts a schwa between /s/ and the voiceless stop at least twice out of eight possible occurrences. In addition, speaker number one (S1) simplifies the cluster by deleting /s/ in "screw" and "scream." Both S1 and speaker number 4 (S4) delete /r/ in "street."

• *Two Consonants.* The following double consonants are found in the syllable-final position:

		Examples
voiceless stop + fricative	/ts/	cats, mathematics
liquid + fricative	/ls/	holes, battles, puzzles
nasal + fricative	/ns/, /nθ/	avoidance, problems, things, month
nasal + voiceless stop	/nt/, /nʔ/	excellent, statement
nasal + voiced stop	/mb/	limbs

• *Three Consonants.* The majority of the final clusters have two consonants, and one series of three consonants occurs as a syllable-final cluster; that is, a nasal, a voiceless stop, and a fricative all following one another as in "glimpsed." Words such as "flasks," "sculps," "taxed," have one or two consonants, but not three, at the end of the syllable.

4) Alternations

Stops. As in many non-native varieties of English such as Afro-American languages and dialects, Sranan, Jamaican, Kenya Pidgin Swahili and Fanagalo (Allyne, 1980; Heine, 1979), voiceless unaspirated stops are used in the syllable initial position as well as after [s]. On the other hand, [tʰ] and [kʰ] occur before [r], while /p/ still occurs unaspirated. In the syllable final position, the stops are either released or non-released.

Sometimes the final [p] alternates with [b]. S1 and speaker number 3 (S3) pronounce "rub" as [rʌb], but speaker number 2 (S2) and S4 pronounce it as [rʌp']. When the word is followed by the suffix [er], however, the root has a final [b]. Similarly, the final [t] occasionally alternates with [d]. S3 and S4 have [t'] at the end of "understand," but it turns into [d] in "understanding." Occasionally, the syllable-final stops alternate with [ʔ].

Liquid /r/. Following a vowel, /r/ is not realized. When a root ending with /r/ is followed by suffixes such as "-er," "-y," "-al," "-ation," or "-atory," however, it is pronounced. For example, even though the /r/ following the vowel in the second syllable of "prepare" is not realized; it is pronounced in "preparatory."

Vowels. When followed by /r/, the schwa turns into [A]. Therefore, "sicker" is pronounced as [sɪkɑ]:

/sɪkər/ phonemic
sɪkɑr schwa alternation
sɪkɑ [r] deletion
[sɪkɑ] phonetic

When followed by /l/, *the schwa sometimes alternates with* [ɛ]. In "political" and "several," the final syllables have [ɛ], but S1 and S2 say "individual" with [ɛ] while S3 and S4 have [ə].

The vowels [o] and the diphthongs [oʊ] are in complementary distribution. While [o] occurs before [l], [s] , and in open syllables, such as in "pole," "pose" and "go," [oʊ] occurs before stops and nasals, as in "bode," "poke," "boat," "cope," "telephone," and "won't."

Similarly, while [e] occurs in an open syllable, as in "stay," "play," "paper" and "lady," before /l/, as in "hail," and before the fricatives /f, v, s/, as in "behave," "caves," "trace," the diphthong [ei] occurs before voiceless stops, as in "tape," "portrait," "takes," and before nasals, as in "game," "against," "danger" and "training." [ei] also occurs before the fricative /θ/, as in "eighth." [3]

The alternation of [e] with [ei], however, does not occur across morpheme boundaries. For example, even though [ei] precedes [d] in "bayed," the word is pronounced with [e] since [d] is not part of the root but a past-tense morpheme added to "bay." On the other hand, "afraid" is pronounced with [ei] because here [d] is part of the root.

5) Realization of the plural and singular present-tense morphemes

Following voiced and voiceless non-sibilant consonants as well as vowels in words such as "peas," "machines," "battles," "legs," "heads," "cats," "clasps," "flasks," "months," and "films," [s] is used for the plural morpheme. In words such as "exercises" and "braces," most speakers have nothing for the plural morpheme. Some speakers, however, have [ɪs] as in "roses."

The speakers normally do not realize the singular present-tense morpheme. If they do, [s] is used after voiced or voiceless non-sibilants. Following sibilants, however, it is realized either as [ɪs] or [əs], as in "touches" and "fishes," respectively.

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6) Realization of the past-tense morpheme

Following all voiced and voiceless phonemes except alveolar stops, the speakers use [t] most of the time except after alveolar stops. Occasionally, the speakers use [d] following voiced stops, as in "interviewed," or nothing, as in "asked." Following alveolar stops, however, the past-tense morpheme is realized as [ɪd] or [ɪt], as in "interested."

7) Realization of form words

There are two different forms of the article "the": [ðə] and [ðɛ]. These forms are used interchangeably in front of words that begin with a vowel or a consonant.

For the article "an" and the conjunction "and," [ɛn] is used. Moreover, the speakers use the full form of the prepositions "at," "of," "to," and "for" as well as the auxiliaries "have," "can," and the article "a."

8) Suprasegmentals

Words with Different Suffixes. Most polysyllabic words in the data receive equal stress on every syllable, as would be the case for syllables in the Burmese language. Nevertheless, in words ending with '-ise' or '-ize' (as in "apologize," "advertise," or "televise"), the speakers tend to place stress on the last syllable.

In words ending with "-ation," (as in "explanation," "application," "qualifications," "relation," and "organization"), the stress falls on the penultimate and the final syllables for most of the speakers. Similarly, words such as "discussion, progression" and "television" tend to receive stress on the last two syllables. When words with "-ation," such as "corporation" and "nation," occur as loan words in Burmese, the last two syllables have a high tone, and Burmese speakers in the study seem to carry this process into English.

The tendency to stress the last two syllables is also found in words ending with "-ic," such as "democratic," and "photographic." In general the speakers stress all the syllables in the words ending with "-y" such as in "democracy" and "photography." For the roots "democrat" and "photograph," every speaker stresses the last syllable.

Compound Words. In compound words such as "woodpecker," "upstairs," "take-over," "landlady," "Snow White," "bloodshed," "tape-recorder," "post-graduate," "waste-paper basket" and "carpet-sweeper," the first word receives the primary stress.

Sentence Stress. According to Gimson (1989), a native English speaker stresses the parts of an utterance to which he wants to attach

particular meaning and pronounces the remaining words or syllables weakly and rapidly. Moreover, he found that an utterance which has more content words is likely to receive more stresses than one that has the same number of syllables but more form words (p. 263).

In the present study, however, all the respondants pronounce the unstressed and the stressed syllables with equal length. Furthermore, since most polysyllabic words tend to receive equal stress on every syllable, the speakers have a syllable-timed rhythm which is different from that of AE and BrE speakers but similar to "machine gun rhythm" found in Singaporean English (Tay, 1982, p. 135).

In the following sentences, the speakers tend not to stress articles, the modal auxiliary "can," and pronouns, but the remaining words are stressed equally:

1. Do ·'not ·'speak to me.
2. Do you ·'have a ·'match?
3. Can you ·'play the ·'piano?
4. ·'Have you ·'done ·'any ·'work this ·'week?
5. ·'There ·'is a ·'conflict ·'in her ·'schedule.

9) Intonation

Most speakers display a falling intonation for statements, imperatives and requests, Yes-No questions, as well as the tag questions. For one Wh-question, the speakers differ from one another in their intonation patterns: while S2 has a falling intonation, S1 has a rising intonation; S3 displays no intonation contour, and S4 has a rising-falling intonation.

10) Summary

Segmentals in Strong Burmese English Accent.
• *Consonants.* The following features in the accent are observed:

(a) There are 26 consonants in the phonemic inventory.
(b) A positional constraint specifies that the voiceless unaspirated stops [p, t, k] appear following /s/ as well as in the syllable-initial position, except before /r/, where /t/ and /k/ are aspirated and /p/ still occurs unaspirated. Thus, in the allophonic system of voiceless stops, there is a gap for [pʰ].
(c) A positional constraint prevents /r/ from appearing after a vowel except when followed by suffixes.
(d) Most of the consonant clusters tend to be restricted to double consonants either in the syllable initial or syllable final position. If there are more than

two consonants in a cluster, the speakers tend to simplify it either by the insertion of a vowel or by deletion.

• *Vowels.* The following features in the accent are observed:

(a) There are ten vowels and seven diphthongs in the phonemic inventory.
(b) A positional constraint prevents [ə] from occurring before /r/. In this position, [ɑ] is found instead.
(c) [o] and [oʊ] are in complementary distribution. While [o] occurs in open syllables and before /l/ and /s/, [oʊ] occurs before stops and nasals.
(d) [e] and [ei] are in complementary distribution. While [e] occurs in open syllables, before /l/, and before the fricatives /f, v, s/, [ei] occurs before voiceless stops and nasals.
(e) [ɛ] and [ə] are in free variation before /l/.
(f) Unstressed syllables and most of the form words, such as prepositions, are given full vowel values.

Suprasegmentals in Strong Burmese English Accent

• *Stress and intonation.* The following features in the accent are observed:

(a) Most polysyllabic words tend to receive equal stress on every syllable.
(b) If there is an unstressed syllable, it will be given an equal length as the stressed syllable.
(c) In sentences, every word tends to receive an equal degree of stress.
(d) The speakers have syllable-timed rhythm.
(e) Words such as "democrat" and "photograph" and those with suffixes such as "-ise" and "-ize" which receive stress on the antepenultimate syllable in American English (AE) and British English (BrE) tend to receive stress on the final syllable.
(f) Words with suffixes such as "-ation" and "-ic" tend to receive equal stress on the penultimate and final syllables.
(g) The speakers tend to use falling intonation for all types of sentences including Yes-No questions.
(h) The speakers do not rely on stress or intonation to convey meaning; therefore, contrastive stress is lacking.

IV. COMPARISON OF A STRONG BURMESE ENGLISH ACCENT WITH BRE AND AE ACCENTS

1) Words with similar pronunciation to BrE

Many words have similar pronunciation to BrE rather than AE. For example, "interested" has three syllables and "history" two syllables as

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in BrE, whereas AE has four and three syllables, respectively. Furthermore, "but" and "such" are pronounced with /ʌ/, as they are in BrE, rather than with /ə/ as in AE. The first syllable in "either" is /aɪ/ rather than /i/, and "ask" is said with /ɑ/ rather than with /æ/, as are "classify," "basket," "photograph," "last," "fantastically," and "advance." The first consonant in "schedule" is /ʃ/ rather than /sk/. "Vitamin" is said with /ɪ/ in the first syllable instead of /aɪ/ as in AE. Like BrE speakers, Burmese speakers do not realize /r/ after a vowel in a syllable-final position except when followed by a suffix. On the other hand, while "where" and "there" are said with [ɛə] in BrE, Burmese speakers have either [ɛː] or [ɛə].

Even though "boat" and "telephone" are pronounced with [əʊ] in BrE, Burmese speakers have [ou]. Furthermore, while in BrE "which" and "whether" are pronounced with [w], Burmese speakers use [w̥] like some American speakers (Roach, 1991, p.51).

In AE, sometimes /t, d, n/ occur as flaps between vowels as in "latter," "ladder," "tanner" (Ladefoged, 1982, p. 153). Burmese speakers do not demonstrate flaps in these environments. For example, "bitter" and "battles" are pronounced with [t].

2) Differences between BrE and AE and strong Burmese English Accent

Segmentals. Most consonants and vowels in Burmese speakers' English correspond to AE and BrE consonants. On the other hand, [tɕ] exists in the phonemic inventory of Burmese speakers while it is absent in AE and BrE. Furthermore, similar to the English of speakers of other languages, processes such as substitutions, devoicing, deletion, and cluster simplification of the source languages can be detected.

3) Substitutions

Consonants.

	AE & BrE Consonants		Corresponding Consonants	Examples
	Initial	Final		
Stops		/p, t, k/	None, / t', s, ʔ/	cheap, group, cope, look
		/b, d/	None, /s/, /ʔ/	job, riverside, attitude
		/g/	/t/	rig, rug
Nasals		/ŋ/	/n/	going, being
		/n/, /ŋ/	nasalized vowels	incline, song, being
		/v/	/t, ʔ/	five, attractive

Fricatives		/θ/	/t̪/	hundredth, wreath, bath
		/s/ /z/	None, /t, ʔ/	mattress, apologize
Affricates		/dʒ/	None, /t/	manage, large
Clusters	/kj/; /tu/ or /tj/		/tɕ/	occupy, opportunity, attitude

Vowels and dipthongs. The vowels /i, ɪ, ɛ, u, ʊ, ʌ, ɔ/ and /ɑ/ in Burmese English correspond to those of AE and BrE. /ə/ in certain contexts, however, differ along with some diphthongs.

AE & BrE Vowels	Corresponding Vowels	Examples
/æ/	/ɛ/	attitude
/ə/	/ɛ/	corporal
/ə/	/ɑ/	perfect
/ə/ or /ɜ/	/ʌ/	first, bird
/ɔɪ/	/waɪ/, /waĩ/	avoid, enjoyable
/aɪ/	/aĩ/	file, classify
/aʊ/	/aũ/	now, how, around
/oʊ/	/o/	so, day

4) Devoicing

Voiced obstruents in syllable-final position in BrE and AE tend to appear voiceless. For example, "heed" is said with a final [t'], "fatigue" with [k'], "heads" with [s], "attractive" with [f], "soothe" with [θ], and "Cambridge" with [tʃ]. This devoicing process, however, is not restricted to Burmese speakers of English but occurs in the speech of most second-language learners (Major, 1987; Altenberg and Vago, 1987).

5) Cluster simplification

While allthe syllable-initial consonant clusters with two consonants in AE and BrE exist, when three consonants appear in the initial position the speakers may have a simpler structure than in AE and BrE. There may be a schwa between the first and second consonants, or either the first or the third consonant in AE and BrE may not be present. For example, in "screw," and "scream," S1 does not have an initial /s/; in "scream," S3 and S4 insert a schwa between /s/ and /k/, and S4 deletes /r/. If the third consonant is /l/, speakers tend to have a schwa between the first two consonants, as in "splendid" and "split."

In the syllable-final position, when there are two consonants in AE and BrE, Burmese speakers may have one less segment. When there are

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more than two consonants in the AE and BrE clusters, there is one or two fewer segments. For example, for "cats" and "roads," there is only one final consonant. Furthermore, "test, must, dusts," and "rests" may be pronounced only with /s/ as the final consonant.

6) Influence of written words

Many second language learners have been noted to have spelling pronunciation. For example, unstressed syllables are said with full vowel values due to the influence of the written representation of words (Young-Scholten, 1995). Burmese speakers also tend not to reduce vowels in unstressed syllables. For example, form words such as "a," "an," "the" as well as the auxiliary verbs are said with their full vowel values.

In BrE and AE, along with a change of placement of stress for "prefer" and "preference," there is a vowel change. For Burmese speakers, however, there is neither a stress change nor a change of vowel. Similarly there is no vowel alternation in the series "photograph, photography, photographic." Besides due to influence from writing, the speakers display no elision as BrE and AE speakers do in a connected speech. For example, when an alveolar and a palatal glide are immediately adjacent, only S2 displays the palatalization process and produces [dʒ] in "did you," as in AE and BrE.

Consonants in content words are also pronounced according to their spelling. For example, while AE and BrE speakers pronounce the word "singing" as /sɪŋɪŋ/ and "singer" as /sɪŋə (r) / (Ladefoged, 1982, p. 61; Roach, 1991, p. 64), Burmese speakers have /g/ following /ŋ/ at the end of the first syllable.

7) Influence of mother tongue in loan words

English words such as "plaster," "lemon," "film," "manage," "penicillin," "telephone," and "passport" occur in Burmese as loan words. These assume either the stress or the syllable patterns of the Burmese transliterations in the data.

English words	Burmese	Burmese English
plaster	[pəlasəta]	[ˈplʌsˈta]
lemon	[limũ]	[ˈliˈmʊn]
film	[pʰəl̃i]	[fiːlms], [faɪs], [flɪn],[fĩs]
manager	[mʌnedza]	[ˈmʌˈnɛtʃ]
penicillin	[pɛnəsəl̃i]	[ˈpɛˈnəˈsəˈlɪn]
telephone	[tɛlipʰòũ]	[ˈtɛˈliˈfoʊn]

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8) Suprasegmentals

Stress. Burmese speakers tend to have different stress patterns from AE and BrE in polysyllabic words with different suffixes.

	AE & BrE	Burmese English
Words functioning both as nouns as well as verbs	Display stress contrast	Few display stress contrast
"-ise" or "-ize" suffix	Antepenultimate syllable stress	Final syllable stress
"-ation" suffix	Penultimate syllable stress	Penultimate & final syllable stress
"democrat" and "photograph"	Antepenultimate syllable stress	Final syllable stress
"-ic" suffix	Penultimate syllable stress	Penultimate & final syllable stress
"-y" suffix	Antepenultimate syllable stress	Most stress all syllables

Intonation. In AE and BrE, statements and wh-questions receive a falling intonation while yes-no questions receive a rising intonation. When a tag question receives a falling intonation, it is not a real question but an invitation for the listener to confirm what the speaker has said. If it receives a rising intonation, however, it is a question (Bowen, 1975, p. 184-193). Similarly, Gimson (1989) states that different intonational patterns for requests and commands indicate different attitudes of a native speaker. When requests and commands are said with a low-falling tone at the tail, it indicates the speaker is calm and detached. When the nucleus is the tail, but has a high pre-nuclear pattern, it shows politeness. A gentle command or request is presented with a low-rising nuclear tone, but a relatively high pre-nuclear pattern gives an effect of fresh thought, appeal, or encouragement. To indicate a strong surprise, an exclamation assumes a high-falling intonation (Gimson, 1989, p. 281-288).

Most Burmese speakers display a falling intonation for statements, imperatives, requests, and yes-no questions as well as for tag questions. However, there are no consistent patterns among different speakers for wh-questions and for exclamations. The speakers seem to rely on the syntax of the interrogatives for posing questions.

V. CONCLUSION

Burmese English accent shares features of British, French, Jamaican Creole, and midwestern American English accent, plus features of Burmese. Even though the phonemic inventory in Burmese speakers' English is smaller than AE and BrE, most of the phonemes and the

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distribution systems are similar to AE and BrE. At the same time, there are distinctive features in Burmese English. For example, occasionally an additional phonetic feature such as nasalization is found in the vowels of the subjects. Moreover, the speakers have lower frequency of syllable-final voiced stops and consonant clusters than the AE and BrE speakers. Where AE and BrE differ in pronunciation, however, Burmese speakers follow BrE. The following characteristics can be summarized as the characteristics of Burmese English accent:

(1) When pronunciation differs between AE and BrE, the Burmese accent is similar to BrE. For example, there is no post-vocalic /r/; "here, there" and "poor" are said as [hiə] or [hiɑ], [ðɛə] or [ðɛɑ], and [puə] or [puɑ].

(2) "Ask" and "desk" may be said as [ɑks] and [dɛks] respectively.

(3) In words such as "occupy" and "opportunity," [kj] and [tj] or [tu] are said with [tɕ].

(4) /θ/ and /ð/ are said with less friction than in AE and BrE.

(5) Unaspirated voiceless stops occur in the syllable-initial position.

(6) Voiced obstruents tend to be devoiced in the syllable-final position.

(7) Glottal stops may appear in the syllable-final position.

(8) Clusters may be simplified either by consonant deletion or by schwa insertion. For example, "test" is said as [tɛs], and "split" is said as [səplɪt].

(9) Elision is absent.

(10) Words such as "four, more" and "store" are pronounced as [fo], [mo], and [sto].

(11) The unstressed vowels are given full vowel values. For example, form words such as "of, a, at," or words such as "photograph" and "democracy" do not have reduced vowels.

(12) [ɑ] instead of [ə] occurs before /r/ so that "prefer" is [prifɑ] instead of [prəfə].

(13) [ɛ] and [ə] occur interchangeably before /l/.

(14) [ɛ] occurs in place of [æ].

(15) In open syllables as well as before /l/ and /s/, [o] and [e] occur instead of [oʊ] and [ei] as in AE and BrE so that "so" is [so] and "say" is [se].[3]

(16) [aʊ] and [aɪ] may be nasalized in open syllables so that "now" and "my" will be said as [naʊ̃] and [maĩ].

(17) [ɔɪ] in AE and BrE is said as [waɪ]. Thus, "boy" is [bwaɪ], and due to nasalization of the diphthong it may be said as [bwaĩ].

(18) Every syllable receives an equal stress in most polysyllabic words.

(19) Words with suffixes such as "-ation" and "-ic" receive stress both on the penultimate and the final syllable.

(20) Words with suffixes such as "-ise" (or "-ize") and "-ic" receive stress on the final syllable.

(21) The unstressed syllables are pronounced as long as the stressed syllables.

(22) Since every word receives an equal stress in a sentence, there is a syllable-timed rhythm.

(23) Falling intonation is used for all sentence types including Yes-No questions. For Yes-No questions, speakers rely more on syntax than on intonation.

Notes:

[1]Three hundred and twelve words are from Gimson (1989), one hundred and thirty three polysyllabic and compound words as well as twenty eight sentences are from Eltrug (1984).

[2]The passage is on "Interviews" from one of the reading selections for students at Rangoon University.

[3] The simplification of diphthongs /ei/ and /oʊ/ to monophthongs /e/ and /o/ is also found in Guyanese phonology (Wells, 1982) and Nigerian English (Ufomata, 1990).

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