



DETECTING AND CORRECTING SPEECH RHYTHM ERRORS

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ABSTRACT

Every language has its own rhythm. Unlike many other languages in the world, English depends on the correct pronunciation of stressed and unstressed or weakened syllables recurring in the same phrase or sentence. Mastering the rhythm of English makes speaking more effective. Experiments have shown that we tend to hear speech as more rhythmical than it actually is. English is a stress-timed language, and one general rule of rhythm is that an equal amount of time is taken from one stressed syllable to the next. Bolinger suggests that the most important factor for English rhythm is neither the number of syllables nor the number of stresses but the pattern made in any section of continuous speech by the mixture of syllables containing full vowels with syllables containing reduced vowels. Despite the obvious relevance of rhythm and tempo to verbal interaction, the linguistic textbooks have had nothing to say about them. In any sentence, some words carry a stress. These are the 'strong' or 'lexical' words (usually nouns, verbs, adjectives and adverbs). The remaining words are 'grammatical' words and are unstressed or 'weak'. Rhythm is the beat of one's speech, like a drumbeat, composed of such suprasegmental elements as pitch, stress and tempo. Thinking in musical terms, we can hear the musical beat of such musical forms as march, waltz and syncopated jazz. Intonation and rhythm patterns go a long way in carrying the meaning across in English. One can be speaking with perfect pronunciation, but put the stress on the wrong syllable and the whole statement may go without being understood. It is likewise with how and where the pitch and inflections rise and fall, and the tempo-rhythms of one's speech. Spoken English words with two or more syllables have different stress and length patterns. Some syllables are stressed more than others and some syllables are pronounced longer than others. It is important for non-native speakers to understand and master the rhythm of English. If the wrong words are stressed in a sentence or if all words are pronounced with the same length or loudness, the speech will be difficult to understand. Proficient pronunciation is essential to language learning because below a certain level of rhythm consciousness, even if grammar and vocabulary have been mastered, communication simply cannot take place. Language learners make pronunciation errors of two types: those involving the articulation of phones (phonemes) and those involving the use of prosody. Prosody is represented by three distinct components in the acoustic signal: (a) fundamental frequency (pitch), (b) duration (speaking rate and timing), (c) intensity (amplitude or loudness). Early prosody instruction, starting the first year of language study, could be a boon to learning both syntax and phone articulation. When listening to a foreign speaker, it is not uncommon to hear a sentence with correct phones and syntax that is hard to understand because of prosody errors. Learners of English as a foreign language must be introduced as early as possible to the rhythm of the new language they encounter. They must be taught recognition before production. Their teachers must integrate rhythm and other aspects of phonology into grammar, vocabulary and functional language lessons as well as listening and speaking activities. Teachers must do relevant drills (especially backchaining), physical movement (finger-clicking, clapping, tapping, jumping) in time to the rhythm of the sentence. They must focus on stress in short dialogues (kn you? Yes I can); invent short dialogues, paying attention to stress and rhythm by focusing on short utterances with distinctive stress and intonation patterns and a specific rhythm (long numbers, phone numbers, football results etc.). They must recite jazz chants, poems, rhymes and tongue-twisters (limericks are good at higher levels); sing along with them popular songs and jazz chants. Because phonology is a system, learners cannot achieve a natural rhythm in speech without understanding the stress-timed nature of the language and the interrelated components of stress, connected speech and intonation. Rhythm should be included into a syllabus for teaching English pronunciation is (at least) two-fold. Activities related to the correction of these errors are designed to meet students' different learning styles, namely auditory, visual, tactile, and kinesthetic learning. In this way, the goal of the "learner-centered" classroom is hoped to be pragmatically achieved.

Key Words: rhythm, pitch, unstressed, weak

1 The Concept of Speech Rhythm

The speech rhythm is an inherent, yet a very complex and elusive aspect of speech prosody (Beňuš, 2012). In linguistics, rhythm or *isochrony* is one of the three aspects of prosody, along with stress and intonation (Isochrony, 2012). Languages can be categorized according to whether they are syllable-timed or stress-timed (Taylor, 2012). Speakers of syllable-timed languages, Turkish being one of them, put roughly equal time on each syllable; in contrast, speakers of English, considered a stressed-timed language put roughly equal time lags between stressed syllables, with the timing of the unstressed syllables in between them being adjusted to accommodate the stress timing (Rhythm, Wikipedia).



Narmour (1980) describes three categories of prosodic rules which create rhythmic successions which are additive (same duration repeated), cumulative (short-long), or countercumulative (long-short). Cumulation is associated with closure or relaxation, countercumulation with openness or tension, while additive rhythms are open-ended and repetitive (Lambert, 2010). Richard Middleton (1990) points out this method cannot account for syncopation and suggests the concept of transformation (Rhythm, Wikipedia, 2012).

The rhythm of a language is created altogether by such patterns as pitch, loudness/prominence and tempo, loudness being the basis of rhythmical effects in English (Crystal 1997). Some kinds of formal and repetitive rhythm are familiar from music, rap, poetry and even chants of soccer fans. But all speech has rhythm - it is just that in spontaneous utterances we are less likely to hear regular or repeating patterns. (More, 2002).

The very notion “rhythm of speech” suggests that the two different utterances may share a common, underlying property, called the same “rhythm”. Intuitively, this can be brought to awareness by imitating the rhythmical pattern of an utterance with nonsense syllables, as “The 'MAN in the ,STREET” (where capitalized words are accented both with primary and secondary stresses), imitated with “da'DAdada,DA” vs. “dadadadada” (Ameka, 1992). Notice that one can pronounce this statement at least in two different ways, either preserving the speech melody of the original utterance or in a monotone style. By pronouncing each case, i.e. the monotonous or the rhythmic version, we may wonder our utterance sounds more natural. This suggests that it is possible, at least in first approximation, to study the rhythm of speech as a function of the temporal patterning of speech, without taking into account the melodic aspects. In the case of intonation, the rhythm of speech is considered from the phonetic angle, concentrating on the ensemble of speech sound durations. All these features together constitute the temporal patterning of speech, attempting to focus on those aspects relevant to the perceived to it rhythmical structure (Nooteboom, 2012).

2 The Nature of Speech Rhythm

Every language has its own rhythm. Unlike many other languages in the world, English depends on the correct pronunciation of stressed and unstressed or weakened syllables recurring in the same phrase or sentence. Mastering the rhythm of English makes speaking it more effective. (Orion, 1997).

The notion of rhythm involves some noticeable event happening at regular intervals of time; one can detect the rhythm of a heart-beat, of a flashing light or of a piece of music. It has often been claimed that English speech is rhythmical, and that the rhythm is detectable in the regular occurrence of stressed syllables; of course, it is not suggested that the timing is as regular as a clock – the regularity of occurrence is only relative. The theory that English has stress-timed rhythm implies that stressed syllables will tend to occur at relatively regular intervals whether they are separated by unstressed syllables or not; this would not be the case in “mechanical stress.” An example of such a mechanical stress is given below where the stressed syllables have numbers next to them. Here the syllables 1 and 2 are not separated by any unstressed syllables, 2 and 3 are separated by one unstressed syllable, 3 and 4 by two and 4 and 5 by three: “Walk(1) ,down(2) the 'path(3) to the 'end(4) of the ca,nal(5).” [ˈwɔ:k ,daʊn ðə ˈpæθ → tə ði ˈend_əv ðə kə,næl↓] The stress-timed rhythm theory states that the times from each stressed syllable to the next will tend to be the same, irrespective of the number of intervening unstressed syllables. (Roach, 1983) Some writers have developed theories of English rhythm in which a unit of rhythm, the foot, is used with an obvious parallel in the metrical analysis of verse; the foot begins with a stressed syllable and includes all following unstressed syllables up to (but not including) the following stressed syllable. The example sentence given above could also be divided into feet as follows: “Walk(1) | ,down(2) the | 'path(3) | to the | 'end(4) of the ca, | nal(5).” (Roach, 1983).



Experiments have shown that we tend to hear speech as more rhythmical than it actually is, and one suspects that this is what the proponents of the stress-timed rhythm theory have been led to do in their auditory analysis of English rhythm. However, one ought to keep an open mind on the subject, remembering that the large-scale, objective study of suprasegmental aspects of real speech is only just beginning, and there is much research that needs to be done (Roach, 1983).

In speaking English the natives vary in how rhythmically they speak: sometimes they speak very rhythmically (this is typical of some styles of public speaking), while at other times they speak *arhythmically* (that is, without rhythm) – for example, when they are hesitant or nervous. Stress-timed rhythm is thus characteristic of one style of speaking, not of English speech, as a whole; one always speaks with some degree of rhythmicality, but the degree will vary between a minimum value (arhythmical) and a maximum (completely stress-timed rhythm). It has been claimed that stress placement is conditioned to some extent by the influence of rhythm. In examples such as “fourteen” [ˌfɔːˈtiːn] and “Westminster” [ˈwest,mɪnstə] the stress pattern does change from primary to secondary where prominence falls in the second word as in “fourteenth day” [ˌfɔːˈtiːnθ ˌdeɪ], “Westminster Abbey” [ˈwest,mɪnstə,ræbi]. Because in English there is a tendency to avoid two strong stresses coexisting near each other (Roach, 1983).

English, being a stress-timed language, another general rule of rhythm is that an equal amount of time is taken from one stressed syllable to the next, i.e. that English rhythm has an *isochrony* based on stress. This is illustrated in the following example: “What’s the difference between a sick elephant and a dead bee?” [ˈhwɒts ðə ˌdɪfərəns → bɪ,twiːn ə ˈsɪk_ɛləfənt → ˌɛnd_ə ˈdɛd ,biː] (Cruttenden, 1997)

Bolinger (1981) suggests that the most important factor for English rhythm is neither the number of syllables nor the number of stresses but the pattern made in any section of continuous speech by the mixture of syllables containing full vowels with syllables containing reduced vowels. According to this theory, the basic unit of rhythm is a full vowelised syllable together with any reduced vowelised syllables that follow it. Each rhythm unit must thus contain one and only one full vowelised syllable. This is reminiscent of the analysis of continuous speech by the stress timing theory into rhythm-groups each containing one (and only one) stressed syllable and all the unstressed syllables that follow it. There are, however, fundamental differences between the stress-timing theory and the theory of what Cruttenden (1986) calls, for want of a better word, “fullvowel timing”. The following two examples will serve to illustrate the most crucial of these differences. “Those porcupines aren’t dangerous.” [ˈðoʊz ˌpɔːkjəpaɪnz → ˈaɪnt ˌdeɪndʒərəs↓] vs. “The wallabies are dangerous.” [ðə ˈwɒləbaɪz → ˌaɪnt ˌdeɪndʒərəs↓] (Cruttenden, 1997).

3 The Importance of Speech Rhythm

Rhythm is one of the most pervasive aspects of the human condition; it is in the world around us and in the world within us, in our bodies and our minds, our living and our thinking (Murphy, 2004). Human language, quite predictably, is deeply rhythmic as well. In addition, we try to show that the rhythm of verbal interaction is synchronized between co-participants and, at the same time, *achieved* by co-participants. That is, the degree and kind of rhythmicity in everyday language may vary: Interactional rhythms may be shared or idiosyncratic, they may emerge or disintegrate, become more or less distinct. Finally, and most importantly, we argue that interactants’ use of rhythmic structures is an important means for making interaction work. Despite the obvious relevance of rhythm and tempo to verbal interaction, the linguistic textbooks we have been trained on for generations--from Hockett’s *Course* (1958) through Lyons’ *Linguistics* (1968) to Fromkin & Rodman *Introduction* (1988)--have had nothing to say about them.

In any sentence, some words carry a stress. These are the ‘strong’ or ‘lexical’ words (usually nouns, verbs, adjectives and adverbs). The remaining words are ‘grammatical’ words and are unstressed or ‘weak’ (conjunctions, pronouns, prepositions, auxiliaries, articles). A typical sentence like ‘It’s



the **worst thing** that you could **do**' the rhythm is produced by this combination of stressed and unstressed syllables (Rhythm, British Council, 2007). This is a major characteristic of spoken English which makes English a **stress-timed language**. In stress-timed languages, there is a roughly equal amount of time between each stress in a sentence, compared with **syllable-timed languages** (Turkish being one of them) in which syllables are produced at a steady rate which is unaffected by stress differences. Sentence stress is an important factor in fluency, as English spoken with only strong forms has the wrong rhythm, sounds unnatural and does not help the listener to distinguish emphasis or meaning (Rhythm, British Council, 2007).

In phonetics, rhythm is used in speech, along with tempo, pitch and loudness to convey information about the structure and meaning of an utterance (Nordquist, 2012) Rhythm is the beat of one's speech, like a drumbeat. It may be choppy or fluid, halting. Thinking in musical terms, we can hear the musical beat of such musical forms as march, waltz and syncopated jazz. Intonation and rhythm patterns go a long way in carrying the meaning across in English (Phonics, 2012). You can be speaking with perfect pronunciation, but put the stress on the wrong syllable and your whole statement may go without being understood. It is likewise with how and where your pitch and inflections rise and fall, and the tempo-rhythms of your speech. When a student learns to use the English pitch pattern to call attention to the important words in his speech, he becomes immediately more understandable in his utterance. So as English instructors we should use these techniques in our pronunciation teaching to give our student's statements a clarity of expression. They can let their audience understand better what they're saying by watching their intonation in their sentences by jumping up in pitch on the important words and step down on the words following them. So when they follow these patterns in their speech, they become more understandable, more expressive, more interesting, and, of course, more native-like (Gilbert, 2008). The more pitch they use, the more complete their expression will be. The word that is most important in their statement depends on the situation. Finally, they have to decide on the most important idea what are the most important ideas. And use pitch to make them stand out (Phonics, 2012).

Spoken English words with two or more syllables have different stress and length patterns. Some syllables are stressed more than others and some syllables are pronounced longer than others. The same is true of phrases and sentences. Different words in a sentence have stronger stress and are pronounced longer and other words are weaker and shorter. This pattern of strong and weak stress and short and long pronunciation gives English its rhythm (Rhythm, 2012).

It is important for non-native speakers to understand and master the rhythm of English. If the wrong words are stressed in a sentence or if all words are pronounced with the same length or loudness, the speech will be difficult to understand (Phonics, 2012).

Words that have the most stress in English are called content words. Content words are usually the nouns, verbs, adjectives, adverbs, and pronouns (demonstrative, possessive, reflexive, and interrogative). These words are important to express the main meaning of the sentence such as nouns, verbs, adjectives, adverbs and pronouns. The function words are weaker and shorter. They include auxiliary verbs, prepositions, conjunctions, determiners, and possessive adjectives. These words are less important in expressing the meaning of the sentence. Such examples as below could well demonstrate the effect of rhythm by the prominence of certain elements in an utterance. Here those stressed syllables of content words are printed (in bold and in capital and relevant primary or secondary stress signs) should be pronounced louder and longer than the functions words (Function Word, 2012, Wikipedia): "WHEN are you ,COMing to 'DINner?" "I have 'NEVer ,LIKED the 'COLor ,RED." "Motorcycles can be dangerous to drive or ride on." "LAST month, ,CARol ,GOT a 'NEW job in ,SAN Fran'CISSco." "NOT ,EVERyone ,LIKES 'CHOColate 'ICE ,CREAM ,BUT ,I do." "CHRISTmas is my 'ABsolute 'FAVorite ,HOLiday."



Many scholars agree – Eskenazi (1996) being one of them – that pronunciation teaching methods supporting both articulation of phonemes with an emphasis on prosody, i.e. the intonation and rhythm of speech have great contribution to the results to be achieved for a language teaching program. Eskenazi claims that proficient pronunciation is essential to language learning because below a certain level of rhythm consciousness, even if grammar and vocabulary have been mastered, communication simply cannot take place (Eskenazi, 1996).

4 How to Detect and Correct Rhythm Errors

Language learners make pronunciation errors of two types: those involving the articulation of phones (phonemes) and those involving the use of prosody (Hişmanoğlu, 2007). Prosody is represented by three distinct components in the acoustic signal: (a) fundamental frequency (pitch), (b) duration (speaking rate and timing), (c) intensity (amplitude or loudness). These components underlie the rhythm and intonation of speech. Phone correction is important during the first year of language study because proper articulatory habits enhance the intelligibility of students' speech. But intelligible speech does not rest solely on correct phones. After the first year of study, pronunciation correction must definitely shift to prosody. Because it is the appropriate prosody which guides the flow of speech in a way to improve intelligibility even when phone targets are not reached (Celce Murcia & Goodwin, 1991).

After year one, pronunciation correction centers almost entirely work on prosody (Eskenazi, 1996). Even when phone targets are not reached, correct prosody guides the flow of speech in a way that affords comprehension. And the measures of what the speaker needs to improve on must have distinct elements that can be practiced and understood. Promising work in this domain includes comparison of language rhythm constructs (Tajima, 1996) and work on automatic detection of the sentence accent (Sautermeister, 1996).

While correcting oral mistakes made during class discussions, there are basically two schools of thought: 1) Correcting them often and thoroughly 2) Letting beginning students make mistakes and correcting advanced students often (Moraeas, 2008). Many teachers take a third route which is called the 'selective correction'. In this case, the teacher decides to correct only certain errors. Finally, many teachers also choose to correct students *after* the fact. Teachers take notes on common mistakes that students make. During the follow-up correction session the teacher then presents common mistakes made so that all can benefit from an analysis of which mistakes were made and why (Beare, 2012).

Early prosody instruction, starting the first year of language study, could be a boon to learning both syntax and phone articulation (Jackson, 2011). Because speakers prepare the syntax of a sentence they want to say at about the same point as they prepare prosody, incorrect word order will not fit the "song" that it is to be sung to. Self-correction then comes into play as students rearrange syntax to give a better fit to prosody. (Because the "song" is considered as a whole and the syntax as a concentration of elements, the student should tend to rearrange syntax and not prosody.) Phones may benefit from early prosody training, for example, in the case of stressed and unstressed vowels in English. If a target vowel is unstressed and the Turkish speaker uses a tense (stressed) vowel that is close to the target in articulatory space, self-correction should follow because the speaker's longer tense vowel will not "fit the song" well (Eskenazi, 1996). For example, if the stressed "this" in the sentence "I want **THIS** present" is shorter and softer than the surrounding vowels, the student will automatically correct the prosody by its context with help of such other examples as in "THIS is yours," where the word is not so short and the speaker must make more effort to retain the shortened form just learned (Eskenazi, 1996).



Such prosody correction systems called CALL and FLUENCY use visual displays on more than oral instructions which will be critical to prosody correction by curves on displays. For example, Video Voice (Micro Video, 1989) uses histograms to represent intensity (over time) and xy curves for pitch (over time).

Correcting prosody is at least as important as correcting phones (Acoustics, 2012). When listening to a foreign speaker, it is not uncommon to hear a sentence with correct phones and syntax that is hard to understand because of prosody errors. Yet we also hear sentences with correct prosody and faulty phones or syntax that we understand perfectly well. It should be assumed that suprasegmental (prosodic) aspects of speech should be tied to segmental (phonemic) information—for example, by showing pitch trajectories (contours over segments) and pitch anchor points (centers of stressed vowels). In a prosody error detection Project called SPELL researchers deal with speech rhythm by showing segmental duration and acoustic features of vowel quality (predicting strong vs. weak vowels) (Seter, 2012).

5 The Methodology for Teaching Rhythm

In order to establish efficient oral communication in English, the key is to pronounce it clearly and naturally by using the correct pattern of rhythm. The first step in teaching English rhythm is to make students aware of stress points within sentences. The students' problems with the word rhythm of English are that they often misplace the stress and give each syllable, whether it is stressed or unstressed having the same length; thus, the vowels in the unstressed syllables are not reduced. As for their problems with the sentence rhythm of English, one is that they put stress on too many words, for they don't know what kinds of words need to be emphasized; the other is that they tend to separate words during speech without linking them together. In order to help such students speak English naturally, their English teachers should pay more attention to teaching the rhythm of English (Lin, 2012).

All students learn that long words, such as "impossible," carry at least one stressed point (im'**POSS**ible) as well as individual words within sentences either as primary or secondary prominence on certain syllables. Teacher Joe uses the following sentences to illustrate this point when he teaches: 1. '**JOE** ,**L**IKES '**J**OKES. (3 syllables, 3 stress points) 2. ,**K**ATHY '**ISN'T** ,**H**UNGry. (6 syllables, 3 stress points) 3. A,**M**ANda '**DOESN'T** like '**E**LEphants. (9 syllables, 3 stress points) (Teaching Rhythm, 2012). He says these sentences to his students slowly, letting them hear that all three take about the same amount of time. So, as a feature of the English language, the key to its rhythm is the number of stress points and NOT the number of syllables! And then he lets his students practice them. Here are four ways that Teacher Joe often uses in his pronunciation class:

1. Repeats and Claps – He leads his students by clapping his hands with each stress point; repeats until all students can follow along and makes it like a song!

2. Repeats with Body Movements – He moves his body up with each stress point; makes it seem like a silly dance; his students laugh at this, but they always remember!

3. Marks the Stress Points – He gives his students five or six sentences on a sheet of paper; his students must listen and put a dot over each stress point; he gives feedback and has his students repeat each sentence out loud at the end.

4. Counts the Stress Points – He reads five sentences or play them from a CD or cassette tape. His students must write down how many stress points there are in each sentence. He does the first sentence quickly as an example, then goes through the rest rather quickly. (It is better if students write the



number on a piece of paper, rather than say the number out loud, because it forces all students to listen carefully!) (Teaching Rhythm, 2012).

As a general rule, English tries to avoid having stresses too close together. Knowing which syllables should be stressed, using weak pronunciation forms, linking word up and using the correct intonation patterns, among others, will help our students pronounce English sentences with a correct rhythm, especially when reciting nursery rhymes, poems and singing songs. Students should watch such suprasegmental features as pitch, primary, secondary patterns in though groups broken by junctures (Phonemic Awareness, 2012).

“,HICKory 'DICKory ,DOCK → The 'MOUSE ran, UP the 'CLOCK ↓” “,DO_it → ac'CORDing to ,PLAN ↓” “I'd ,LIKE to → 'CASH_a ,CHECK ↓” “,GIVE me → a 'BURGer with ,CHEESE ↓” “,HE'd ,RATHer → 'TAKE the ,BUS ↓” “'WHO is the ,MAN → I ,SHOULD 'SEE ↗” “,I'll 'HAVE her → 'CALL you ,BACK ↓” (Grant, 1993)

In order to help his students to understand the relationship between stress and meaning Teacher Jo could have his students work in pairs. While Student 1 is saying sentence (a) or (b), Student 2 has to identify a stressed syllable and make an intelligent guess by choosing an appropriate answer: 1. (a) Is it **e**lementary? No, it's advanced. (b) Is it a **l**emon tree? No, an orange tree. 2. (a) What's for **r**ain? An umbrella. (b) What's **f**oreign? Another language. 3. (a) Is that **E**urope? No, it's China. (b) Is that your **r**ope? No, it's hers (Gilbert, 1993).

Learners of English as a foreign language must be introduced as early as possible to the rhythm of the new language they encounter, which is an unavoidable requirement of the oral communication (Maniruzzaman, 2012). However it is unfortunate that such learners are often introduced first to written forms and the complexities of spelling. Learners whose mother tongue is phonemic or syllable-timed like Turkish have particular problems when it comes to the rhythm in English. Pronunciation teachers of English should therefore remember to provide their students with natural models of the new target language before introducing them the written form. They must use natural language themselves in the classroom, encourage their learners to listen carefully to authentic speech. They must teach them recognition before production. They must integrate rhythm and other aspects of phonology into grammar, vocabulary and functional language lessons as well as listening and speaking activities. They must do relevant drills (especially backchaining), physical movement (finger-clicking, clapping, tapping, jumping) in time to the rhythm of the sentence. They must focus on stress in short dialogues (kn you? Yes I can). They must invent short dialogues, paying attention to stress and rhythm by focusing on short utterances with distinctive stress and intonation patterns and a specific rhythm (long numbers, phone numbers, football results etc.). They must recite jazz chants, poems, rhymes and tongue-twisters (limericks are good at higher levels); sing along with them popular songs (the rhythm of English lends itself to rock and pop music, while rap involves fitting words into distinct beat). Jazz chants, with their inherent natural rhythm provide for students practice the sentence rhythm with their clear and strong one-two-three-four beat (Graham, 1992).

Because phonology is a system, learners cannot achieve a natural rhythm in speech without understanding the stress-timed nature of the language and the interrelated components of stress, connected speech and intonation. It is important to remember that there is a place for phonology in nearly every lesson. Rhythm is both a feature of and product of the phonological structure of English. The phonology of any language is a system, so that a change in one part of the system will affect some or all of the other parts. The inclusion of speech rhythm in many pronunciation teaching materials is an aim to help learners acquire English rhythm, with its perceived tendency towards stress timing, particularly if their first language is one with a tendency towards syllable timing. In stress-timed speech rhythm, stressed syllables are perceived as occurring at regular time intervals, which leads to a



variation in the duration of syllables, or, more accurately, vowels in syllables. In syllable-timed rhythm, each syllable is perceived as a single rhythmic beat, with less variation in syllable duration (Pike 1945; Abercrombie 1967; Grabe and Low 2002).

A decision over whether Speech Rhythm should be included into a syllabus for teaching English pronunciation is (at least) two-fold (Reed, 2012). First, it needs to consider what the role of speech rhythm is in interaction, and what therefore the interactional gain would be for non-native speakers in acquiring native-like speech rhythm. Ways to resolve the various problems, such as missing final consonants, misplaced stress in sentences, and misused intonation patterns, should be discussed in the three areas of pronunciation: sounds, stress & rhythm, and intonation. Activities related to the correction of these errors are designed to meet students' different learning styles, namely auditory, visual, tactile, and kinesthetic learning. In this way, the goal of the “learner-centered” classroom is hoped to be pragmatically achieved (Lin, 2012).

6 Conclusion

Intonation and rhythm patterns go a long way in carrying the meaning across in English. One can be speaking with perfect pronunciation, but when the stress is put on the wrong syllable, the whole statement may go without being understood. Proficient pronunciation is essential to language learning because below a certain level of rhythm consciousness, even if grammar and vocabulary have been mastered, communication simply cannot take place. So English teachers must integrate rhythm and other aspects of phonology into grammar, vocabulary and functional language lessons as well as listening and speaking activities. Learners cannot achieve a natural rhythm in speech without understanding the stress-timed nature of the language and the interrelated components of stress, connected speech and intonation. Correcting prosody is at least as important as correcting phones. When listening to a foreign speaker, it is not uncommon to hear a sentence with correct phones and syntax that is hard to understand because of prosody errors. Yet we also hear sentences with correct prosody and faulty phones or syntax that we understand perfectly well. In order to establish efficient oral communication, the key is to pronounce English clearly and naturally by using the correct pattern of rhythm. The first step in teaching English rhythm is to make students aware of stress points within sentences. As a precaution to better rhythm skills on the part of learners of English as a foreign language, they must be introduced as early as possible to the rhythm of the target language. Only thus they could be skilled in the oral communication in it. The teachers attempting to correct their students' fossilized rhythm disorders must do relevant drills, physical movement in time to the rhythm of the sentence. They must focus on stress in short dialogues. They must recite jazz chants, poems, rhymes and tongue-twisters; sing along with their students some popular songs. The inclusion of speech rhythm in many pronunciation teaching materials is a sure method to help learners acquire English rhythm, with its perceived tendency towards stress timing. Many activities related to the correction of rhythm errors are designed to meet students' different learning styles, namely auditory, visual, tactile, and kinesthetic learning. In this way, the goal of the “learner-centered” classroom is hoped to be pragmatically achieved. Several modern prosody correction systems such as CALL and FLUENCY should be used in computerized pronunciation activities on the the visual display through curves to support the oral instructions in the classroom for prosody correction.

REFERENCES

- Abercrombie, David (2002): *Elements of General Phonetics*, Aldine Pub. Co., 1967 - 203
- About.com Guide Phonics (2012): *Intonation & Rhythm, Master Spoken English Feeling Phonics*: <http://www.masterspokenenglish.com/7intonationpg.htm>
- Acoustics, 2012: *Problems in Speech Synthesis*, http://www.acoustics.hut.fi/publications/files/theses/lemmetty_mst/chap2.html
- Ameka, Felix (1992): *Journal of Pragmatics* 18 (1992) 101-118 North-Holland



- Beare, Kenneth (2012): Student Correction During Class - How and When? Kenneth Beare, About.com Guide
- Beňuš, Slovak Štefan (2012): Rhythm and tempo, CITEC, Bielefeld University, Germany
- Bolinger, D. (1986): Intonation, Indiana University Linguistics Club.
- Carrie N. Jackson and Mary Grantham O'Brien (2011): Using a Computer in Foreign Language Pronunciation Training: What Advantages?
- Celce Murcia & Goodwin (1991): Teaching pronunciation
- Cruttenden, Alan (1997): Intonation, Cambridge
- Crystal D. (1997): Linguistics. Penguin Books
- Eskenazi, Maxine (1996): Detection of foreign speakers' pronunciation errors for second language training - preliminary results
- Eskenazi, Maxine (1996): Using a Computer in Foreign Language Pronunciation Training: What Advantages? Carnegie Mellon University, Journal of Language and Linguistic Studies Vol.3, No.1, April 2007
- Fromkin, Victoria & Robert Romdan (1988): Introduction to Language
- Function Word (2012): http://en.wikipedia.org/wiki/Function_word
- Gilbert, J.B. (1993): Clear Speech: Pronunciation and listening comprehension in North American English, 2nd Ed. Cambridge: Cambridge University Press
- Gilbert, Judy, B. (2008): Teaching Pronunciation Using the Prosody Pyramid
- Grabe, E. and E. L. Low (2002): Durational variability in speech and the rhythm class hypothesis. In C. Gussenhoven and N. Warner (Eds.), Papers in Laboratory Phonology, Volume 7, pp. 377–401
- Graham (1992): Singing, chanting, telling tales, New Jersey, Prentice-Hall, Inc.
- Grant (1993): Sentence Rhythm <http://chifenchentripod.com/rhythm.htm>
- Hişmanoğlu, Murat (2007): The [oo] and [ɔ:] contrast as a fossilized pronunciation error of Turkish learners of English and solutions to the problem, Journal of Language and Linguistic Studies Vol.3, No.1, April 2007
- Hockett, Charles (1958): A course in modern linguistics, The Macmillan Co. New York
- Isochrony, Wikipedia (2012): <http://en.wikipedia.org/wiki/Isochrony>
- Lambert, M. Surhone, Timpledon, Miriam T, Susan F. Marseken (2010): Rhythm, VDM Verlag
- Lin, Hsiang-Pao, Chuen-Yn Fan, and Chi-Fen Chen (2012): Teaching Rhythm to ESL Students <http://www.teacherjoe.us/TeachersRhythm.html>
- Literature Review: Phonemic Awareness, (2012):
- Low, E. L., E. Grabe, and F. Nolan (2012): A conversation analytic perspective on teaching English pronunciation: The case of speech rhythm, International Journal of Applied Linguistics -- Vol. 22 - No. 1; 2012
- Lyons (1968): Introduction to theoretical linguistics
- Maniruzzaman, Dr. M. (2012): Teaching EFL Pronunciation: Why, What and How?
- Micro Video (1989): Video Voice <https://calico.org/memberBrowse.php?action=article&id=623>
- Middleton, Richard (1990): Studying Popular Music
- Moraes, Silvia Aparecida (2008): Mistakes and Correction, The use of the correction on the students' production, written or oral, enforcing his learning of the English language, Volta Redonda, RJ.
- More, Andrew (2002): Phonology, <http://www.teachit.co.uk/armoore/lang/phonology.htm>
- Murphy, John (2004): Attending to Word-Stress while Learning New Vocabulary
- Narmour (1980): Cited in de Lone et al. (Eds.). Aspects of Twentieth-Century Music. Englewood Cliffs, New Jersey: Prentice-Hall
- Nooteboom, Sieb (2012): The Prosody of Speech: Melody and Rhythm, Research Institute for Language and Speech Utrecht University Trans 10 3512 JK Utrecht, Netherlands]
- Nordquist, Richard (2012): Prosody <http://grammar.about.com/od/pq/g/prosodyterm.htm>



Orion, Gertrude (1997): Pronouncing American English

Phonics (2012): Master Spoken English Feeling Phonics, <http://www.masterspokenenglish.com/7intonationpg.htm>)

Pike, K.L. (1945): The intonation of American English, Ann Arbor: University of Michigan Press.

Reed, Beatrice Szczepek (2012): Prosody in Conversation

Rhythm – Wikipedia (2012): <http://en.wikipedia.org/wiki/Rhythm>

Rhythm (2012): <http://www.pronunciationtips.com/rhythm.htm>

Rhythm, British Council (2007): <http://www.teachingenglish.org.uk/articles/rhythm>

Roach, Peter (1983): English Phonetics and Phonology, Cambridge

Sautermeister, P., Lyberg, B. (1996): Detection of sentence accents in a speech recognition system, J. Acoust. Soc. Am., Vol. 99, no. 4 pt. 2, April 1996, p. 2493

Seter, Jane (2012): Speech Rhythm in World Englishes: Case of Hong Kong

Tajima, K., Dalby, J., Port, R. (1996): Foreign-accented rhythm and prosody in reiterant speech”, J. Acoust. Soc. Am., Vol. 99, no. 4 pt. 2, April 1996, p. 2493

Taylor & Francis (2012): Teaching ESL/EFL Listening and Speaking Teaching Pronunciation in the Learner-Centered Classroom, Teaching Rhythm to ESL Students <http://www.teacherjoe.us/TeachersRhythm.html>