



Non-Native English: In Search for Rhythm

Giedrė Balčytytė-Kurtinienė¹

Vilnius University, Lithuania¹

Abstract

One of the key aspects of English an EFL learner needs to master is the specific rhythm that has traditionally been described as stressed-timed rhythm and opposed to syllable-timed rhythm. Despite emerging criticism and the lack of scientific evidence for the stressed-timed isochronous nature of English some relevant acoustic cues still remain relevant for EFL learners: the alternation of strong and weak syllable sequences, vowel reduction, stress placement and other rhythmic aspects of connected speech. The aim of the current study is to examine the significance of rhythm in the intelligibility of speech by non-native speakers as well as to report on a didactic experiment conducted in order to suggest and test music techniques for the enhancement of English rhythm by Lithuanian EFL learners. The findings of the study showed that the respondents faced major problems in the implementation of weak syllables as well as vowel reduction and elision in English utterances since Lithuanian is not characterized by large spectral and durational differences between tonic and atonic vowels as English is. Additionally, the experiment disclosed that EFL learners may benefit from music instruction: the respondents demonstrated superior overall performance to reproduce sample English sentences rhythmically and employ the tested variables to full extent. Furthermore, a positive correlation was found between the EFL learners with musical aptitude and the implementation of the tested variables.

Keywords: Non-native, rhythm, music.

1. Introduction

English today is undeniably used far more by its non-native speakers (NNS) than native speakers (NS) and recent decades have seen a continuous dispute over the implications of English as a lingua franca (ELF) particularly in the fields of second language acquisition (SLA) and English foreign language teaching (EFLT). The development of ELF has given reason to reconsider the traditional native speaker models bringing a variety of Englishes in both social and linguistic sense. Today many scholars and educationalists are rejecting the native-speaker as the ideal model for their learners and are disputing the strict adherence to standard accents such as Received Pronunciation or General American claiming that in current contexts accurate pronunciation models are inappropriate and irrelevant. Instead, they argue for intelligible English pronunciation that serves as a communicative medium for internationally diverse English language users as well as they stress the communicative efficiency over to linguistic correctness ([6], [15]). Intelligibility plays a crucial role in ELF pronunciation curriculum and can be defined as the extent of the phonological features of the language that make the message internationally recognisable by a listener ([6]). Jenkins [15] proposed the Lingua Franca Core (LFC), which is an approach with a systematic minimum syllabus for teaching English pronunciation in international settings required to result in intelligible communication. And yet, a number of opponents remain sceptical about the relevance and teachability of the LFC. First, the intelligibility level has proved to be challenging to define and measure ([6]; [16]). Then, the goals of pronunciation instruction have become obscure, underemphasized and oversimplified which has brought some ambiguity and resignation to educators as a consequence. One of the most problematic areas in the conventionalised pronunciation curriculum of today is the lack of appropriate attention to the prosodic features of English, specifically English rhythm that is essential in order to attain the reasonable intelligibility.

2. Intelligibility and prosody

A considerate number of studies confirmed a highly tangible correlation between overall speech intelligibility alongside with perceived comprehensibility and speech prosody including rhythm ([2], [10], [22]). Anderson-Hsieh et al. [2] in their research concluded that prosodic errors effected intelligibility more than phonetic errors because "prosody provides the framework for utterances and directs the listener's attention to information the speaker regards as important" (p. 531). Hahn [10] pointed out that the correct placement of prosodic features throughout the speech slightly increased the intelligibility of the speakers and greatly increased the listeners' assessment of the speaker.



Ladefoged and Johnson [18] claimed that the change in some of prosodic features lead to the change in the utterance meaning and indicated that prosody signals the most important part of the message and directs where the listener should pay particular attention. Peelle and Davis [22] referred to neurology and behavioural studies claiming that rhythmic information is an important marker for place and manner of articulation, segmental information and speech rate as well as is relied upon by listeners and plays a key role in speech intelligibility.

3. English nature of rhythm

Traditionally English rhythm has been described as stressed-timed and opposed to syllable-timed rhythm ([1], [23]). The stressed-timed nature of English rhythm is based on phonetic contrast between strong and weak beats in a sequence of syllables that results in the variation of syllable structure, vowel reduction and neutralization as well as stress position and other acoustic alternations. To achieve approximately equal intervals of time and fit into the typical foot duration, the speakers seem to stretch or compress syllables in an utterance. The isochronous and regular rhythmic timing, however, is far more credible in the ear of the listener rather than in the actual acoustic attributes of speech thus this distinction is by no means uncontroversial and lacks scientific evidence as claimed by a number of scholars ([5]). The rhythmic typology of languages should rather be viewed as a continuum between a prototypically stress-timed and a prototypically syllable-timed pole. Yet some relevant acoustic cues of the stressed-timed nature of English still remain relevant and vital for EFL learners: the alternation of strong and weak syllable sequences, vowel neutralisation and reduction, stress placement and other rhythmic aspects of connected speech that genuinely affect the intelligibility of the learners. More than that, NNSs transfer and adopt their first language (L1) prosody into the target language (L2) and fail to produce and comprehend specific linguistic, paralinguistic and extralinguistic prosodic cues [9]. Indeed, given the complexity and the multitude of functions of prosody several studies have documented that the transfer from L1 is thought to be particularly persistent in prosody ([19]).

4. Acquiring speech rhythm through music

Regardless the substantial evidence of the vital role of prosody in communication and intelligibility, didactic studies on the acquisition of prosody and rhythm as well as pedagogical implications in particular have been somewhat scarce and overlooked in EFL materials as well as gratuitously excluded from Jenkins' Lingua Franca Core ([15]). This article attempts to address this issue and advocates the idea of using music as a didactic tool for the development of English rhythm in EFL learners' speech. The integration of language and music for foreign language acquisition purposes has long interested scholars and has resulted in a number of studies reporting successful linguistic transfer via music. A highly tangible language and music relationship as well as the integration of the two for EFL acquisition and phonetic skill formation purposes in particular has been noticed by a vast number of scholars ([3], [20]). Moreover, studies have shown that the homogeneous prosodic nature of language and music may result in the positive effect on the enhancement of the feel for English rhythm ([4], [20], [21]). Both, language and music rely on vocal and auditory modalities and thus involve the production and listening stages necessary to boost intelligibility and comprehensibility. More than that, language and music share a number of features at the sound and the hierarchical structure level ([13], [14], [21]). Jackendoff and Lerdahl [13] investigated the hierarchical organization of elements in language and music and emphasized that both systems (linguistic and musical) are highly analogous rhythmically as they have similar hierarchical metrical systems. Moreover, a close cognitive and neurological interaction between the two systems may aid the recall of information in the brain ([11], [12]). Ultimately, the cognitive and neurological studies are also harmonious with diverse didactic theories on distinct learning styles, intelligences, aptitudes and natural acquisition approaches ([7], [8], [17]) arguing that music instruction in EFL settings brings the potential to nurture diverse learning styles and positively influences not only prosodic, but overall cognitive and psychological skills.

5. Didactic experiment

The aim of the current study was to examine the significance of rhythm in the intelligibility of speech by non-native speakers of English due to L1 transfer as well as to report on a didactic experiment conducted in order to suggest and test music techniques for the enhancement of English rhythm by Lithuanian EFL learners. Lithuanian is not characterized by large spectral and durational differences between tonic and atonic vowels as English is and hypothetically it was expected that L1 transfer would manifest itself in the absence of vowel reduction as well as the lack of rhythmicity in terms of the



alternation of strong and weak syllable sequences. A cohort of 15 EFL Lithuanian students took part in the classroom experiment and were exposed to selected sentence patterns through musically rhythmical expertise. The results of the pilot study reported a higher number of problems with the implementation of weak syllables and vowel reduction. After the musical treatment the respondents demonstrated superior overall performance to reproduce the sample English sentences rhythmically and employ the tested variables to full extent. Furthermore, a positive correlation was found between the EFL learners with musical aptitude and the implementation of the tested variables.

6. Conclusions

Overall, the current paper reviewed the scholastic evidence for the relevance of prosody and rhythm in particular for intelligibility and tested a musical approach in a didactic experiment conducted in order to suggest and test music techniques for the enhancement of English rhythm by Lithuanian EFL learners.

References

- [1] Abercrombie, D. "Elements of General Phonetics", Edinburgh, EUP, 1967
- [2] Anderson-Hsieh, J., Riney, T. and Koehler, K. "Connected Speech Modifications in the English of Japanese ESL Learners", IDEAL 7, 1994, 31-52
- [3] Besson, M., Schon, D., Moreno, S., Santos, A. and Magne, C. "Influence of Musical Expertise and Musical Training on Pitch Processing in Music and Language", Restorative Neurology and Neuroscience, 25, 2007, 1-12
- [4] Brown, S., Pfordresher, P. and Chow., I. "A Musical Model of Speech Rhythm", Psychomusicology: Music, Mind and Brain, 27 (2), 2017
- [5] Dauer, R. M. "Stress-timing and Syllable-timing Reanalyzed", Journal of Phonetics, 11, 1983, 51-62
- [6] Derwing, T. M. and Munro, M. J. "Second Language Accent and Pronunciation Teaching: a Research-based Approach", TESOL Quarterly 39, 2005, 379-397
- [7] Fleming, N. D. "Teaching and Learning Styles: VARK strategies", New Zealand, Christchurch, 2001
- [8] Gardner, H. "The Unschooled Mind: How Children Think and How Schools Should Teach", New York, BBI, 1991
- [9] Goad, H. and White, L. "Ultimate Attainment of L2 Inflection: Effects of L1 Prosodic Structure. In Foster-Cohen, S. et al (eds.), Eurosla Yearbook 4, Amsterdam, John Benjamins
- [10] Hahn, L. D. "Primary Stress and Intelligibility: Research to Motivate the Teaching of Suprasegmentals", TESOL Quarterly, 38 (2), 2004, 201-223
- [11] Haut, M. H. and Hoemberg, V. "Handbook of Neurologic Music Therapy", New York, CUP, 2014
- [12] Hodges, D. A. "Implications of Music and Brain Research", Music Educators Journal, 87 (2), 2000, 17
- [13] Jackendoff, R. and Lerdahl, F. "A Generative Theory of Tonal Music", Cambridge, MIT Press, 1982
- [14] Jackendoff, R. "Parallels and Non-parallels between Language and Music", Music Perception 26, 2009, 195-204
- [15] Jenkins, J. "The Phonology of English as an International Language", Oxford, OUP, 2000
- [16] Kirkpatrick, A., Deterding, D. and Wong, J. "The Pronunciation of Hong Kong English", English World-wide, 29 (2), 2008, 148-175
- [17] Krashen, S. D. "Principles and Practice in Second Language Acquisition", Englewood Cliffs, Prentice-Hall International, 1987
- [18] Ladefoged, P. and Johnson, K. "A Course in Phonetics", Boston, Michael Rosenberg, 2010
- [19] Mennen, I. and De Leeuw, E. "Beyond segments", Studies in Second Language Acquisition, 36(02), 2014, 183-194
- [20] Mora, C. F. and Gant, M. "Melodies, Rhythm and Cognition in Foreign Language Learning", Cambridge, CSP, 2016
- [21] Patel, A. D. "Rhythm in Language and Music. Parallels and Differences", New York, New York Academy of Sciences, 2003
- [22] Peelle, J. E. and Davis M. H. "Neural oscillations carry speech rhythm thorugh comprehension", Frontiers Psychology, 06, 2012
- [23] Pike, K. N. "The Intonation of American English", Ann Arbor, University of Michigan Press, 1945