

A multifaceted approach to rhythmic differences in varieties of English

Robert Fuchs, *Speech Rhythm in Varieties of English: Evidence from Educated Indian English and British English*. Singapore: Springer, 2016. Pp. xvii + 240. Hardback €99.99, ISBN 978-3-662-47817-2

Reviewed by Shuangshuang Lu, Zhejiang University City College

While emerging post-colonial varieties of English have been much explored by a vigorously growing number of empirical studies in the past decades, acoustic investigation on the phonology of varieties of English seems not to have received sustained attention (Ao & Low, 2016; Thomas, 2007; Sailaja, 2012). Written with an intent to bring some new insights into this field, *Speech Rhythm in Varieties of English: Evidence from Educated Indian English and British English* serves as a much-welcomed addition to the existing literature on the phonology of varieties of English in general and of Indian English in particular.

The volume consists of eight chapters. Chapter 1 is an introduction where the author provides the rationale for comparing the speech rhythm of two particular varieties of English: educated Indian English and British English. Characterizing Indian English as one variety of the Outer Circle (English as L2), in contrast to the Inner Circle (English as L1) and Expanding Circle (English as EFL) (Kachru, 1985), Robert Fuchs points out that Indian English is indigenized or 'Indianised' (p. 2), resulting in many innovative linguistic features that are worth investigation. However, Fuchs further claims that current empirical studies of Outer Circle varieties have been found primarily focusing on the syntax, lexis and pragmatics of the varieties while phonologically-related issues in general and speech rhythm in particular are rather less examined.

In Chapter 2 Fuchs illustrates the historical and social context of Indian English. Referring to the Dynamic Model of Postcolonial Englishes by Schneider (2003, 2007) and the Circles model by Kachru (1985), he describes the historical development and classification of Indian English. Then an overview of language composition and sociolinguistic features of Indian English is portrayed. Finally, one section is devoted to discussing the previous research on phonological and phonetic

differences between Indian English and British English in terms of segmental and supra-segmental features. The chapter ends with the conclusion that the speech rhythm of Indian English is an area that strongly needs further in-depth exploration.

Fuchs goes on in Chapter 3 to discuss the essence and the different approaches to speech rhythm. He compares different rhythm metrics for measuring rhythmic differences and puts forward a multifaceted model that incorporates a range of coexisting acoustic correlates for speech rhythm. According to him, most previous acoustic research on speech rhythm is mainly measured by the 'duration-based' (p. 35) rhythm metrics, which he argues, are insufficient for a complete understanding of speech rhythm. In other words, other acoustic correlates that might contribute to speech rhythm should be integrated to conceive a more reliable model. He then specifies the proposed model to include correlates such as variability in intensity, loudness, fundamental frequency, and the variability of sonorant and voiced durations. He also offers advice to modify existing methods for quantifying speech rhythm.

Chapter 4 analyzes and assesses the results of previous research on syllable and stress timing in Outer Circle and Inner Circle varieties of English. Fuchs finds that focusing on the variability of durations, most existing studies on speech rhythm suggest that Outer Circle varieties are more syllable-timed compared with Inner Circle varieties. However, he argues that previous studies provide inadequate evidence in explaining rhythmic variations in that they fail to (1) consider other acoustic correlates of rhythm, (2) incorporate different speech styles, and (3) control methodological influences. In response to these shortcomings, he



SHUANGSHUANG LU is Lecturer of English and Applied Linguistics at the School of Foreign Languages, Zhejiang University City College, China. Her main research interests include discourse analysis, systemic functional linguistics and English for

Specific Purposes. She has been teaching English reading, listening and speaking and academic writing courses for undergraduate students and has published many academic articles in the field of Linguistics and Applied linguistics in Chinese and English journals. Email: luss@zucc.edu.cn

attempts to study speech rhythm under strict manipulation of these above factors. He assumes there to be various differences between Indian English and British English on a range of acoustic correlates of rhythm. The chapter ends with several hypotheses concerning the rhythmic differences between educated Indian English and British English.

Chapter 5 deals with the empirical data and the methods adopted in the study. The materials and tasks used to collect data are first introduced, involving a reading task and a spontaneous speech task. The recording procedures are subsequently illustrated: the utterances of Indian speakers were collected by the author in India, and the recordings of the British participants were retrieved from an earlier-established database by Nolan et al. (2006). After that, the author expounds on the sociological information of the participants, describes how the data was annotated, and explains how the rhythm metrics were applied and calculated. The chapter ends with a brief mentioning of the statistical test of the data.

Chapters 6 and 7 present the main findings of the research from two perspectives: production and perception. Chapter 6 consists of ten sections in which Fuchs discusses the prime production differences in speech rhythm between educated Indian English and British English. By applying a multidimensional model, he looks at differences between the two varieties on diverse acoustic correlates of speech rhythm, including vocalic duration and consonantal durations, syllable durations, sonority, voicing, fundamental frequency, intensity and loudness, speech rate, and word-initial glottal stop insertion. Furthermore, during the discussion of the correlates of speech rhythm, he explores whether and to what extent different methodological choices influence the rhythmic variation. The findings of his study reveal (1) the two varieties differ in speech rhythm on a number of dimensions in addition to duration, and a larger number of acoustic correlates substantiate the hypothesis that Indian English has a more syllable-timed rhythm than British English; (2) some other phonological features that are hypothesized to indicate differences between educated Indian English and British English are not sufficiently evidenced; (3) there are differences in the speech styles regarding the rhythmic and other phonological differences; and (4) the syllable timing of British English dialects bear some resemblance to that of Indian English with regard to vocalic durations.

Fuchs continues in Chapter 7 to see whether the production differences in speech rhythm influence the perception of speech in Indian English and British English. In order to detect the salience of speech rhythm, intonation, and segmental differences in influencing the perceptual differences in accents, he resorts to an in part

innovative technique that manipulates the stimuli by selectively transferring or suppressing certain acoustic information. He then explains the design of the two sets of experiments: the accent discrimination experiment is composed to test the relevance of speech rhythm for accent identification, and the cocktail party experiment is devised to investigate 'how differences between IndE and BrE in the production of speech rhythm are reflected in the perception of IndE and BrE speech' (p. 183). The results from both of the two types of experiments conclude that rhythmic differences between Indian English and British English are significantly relevant to the perception of the two varieties.

In Chapter 8 Fuchs reviews the major findings of the study, summarises the contributions of his research to the study of the phonology of English varieties, and points out the direction for future research on the phonology of Indian English and other English varieties.

This book has succeeded in broadening readers' understanding of phonology of English varieties by revealing rhythmic and other phonological differences between Indian English and British English on a range of dimensions. It offers a comprehensive and multifaceted analytical tool for investigating the speech rhythm of English varieties by integrating a number of different acoustic correlates in interpreting rhythmic differences. The book also makes an innovation in identifying and controlling the influence of methodological choices on phonological differences, which helps to ensure the comparability of the features concerned. All these merits make the volume a valuable and approachable reference for scholars, researchers, teachers, and students who are interested in phonological studies in English varieties.

Despite the above strengths of the study, it is not without drawbacks. When comparing the rhythmic differences between Indian English and British English, the regional differences of British English (dialectal) are considered, and even some British dialects are compared and contrasted with Indian English as some exception to the standard British English; but the regional variations of Indian English are not mentioned, regardless of the fact that the Indian participants speak four different L1s. Furthermore, though the book has revealed a great variety of differences of speech rhythm between Indian English and British English on diverse dimensions, it does not examine the perceptual differences between the two varieties from these variant dimensions of rhythm, which would probably yield many other fascinating results.

References

- Ao, R. & Low, E. L. 2016. 'A description of the Yunnan English accent.' *World Englishes*, 35(1), 18–41.

- Kachru, B. B. 1985. 'Standards, codification and sociolinguistic realism: The English language in the outer circle.' In R. Quirk & H. Widdowson (eds.), *English in the World: Teaching and Learning the Language and Literatures*. Cambridge: Cambridge University Press, pp. 11–30.
- Nolan, F., McDougall, K., De Jong, G. & Hudson, T. 2006. 'A forensic phonetic study of dynamic sources of variability in speech: The DyViS project.' In P. Warren & C. I. Watson (eds.), *Proceedings of the 11th Australasian International Conference on Speech Science and Technology*. Auckland, pp. 13–18.
- Sailaja, P. 2012. 'Indian English: Features and sociolinguistic aspects.' *Language and Linguistics Compass*, 6(6), 359–370.
- Schneider, E. W. 2003. 'The dynamics of new Englishes: From identity construction to dialect birth.' *Language*, 79, 233–281.
- Schneider, E. W. 2007. *Postcolonial English: Varieties around the World*. Cambridge: Cambridge University Press.
- Thomas, E. R. 2007. Phonological and Phonetic Characteristics of African American Vernacular English. *Language and Linguistics Compass*, 1(5), 450–475.
-