
This is the **accepted version** of the journal article:

Cebrian, Juli. «Review of Wayland (2021) : Second Language Speech Learning: Theoretical and Empirical Progress». *Journal of Second Language Pronunciation*, Vol. 8 Núm. 1 (2022), p. 144-148. 5 pàg. John Benjamins. DOI 10.1075/jslp.21039.ceb

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Review of Wayland, R. (Ed.) (2021) *Second Language Speech Learning: Theoretical and Empirical Progress*. Cambridge University Press.

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The field of second language (L2) speech research is a relatively recent field of study that took off in the second half of the twentieth century, growing exponentially in the last four decades. In this period of time, the publication of a few extremely influential books has been key to the development of the field. Among these we find Strange (1995) and Bohn and Munro (2007), which constituted the establishment of the most well-known theoretical L2 speech models and also provided review chapters that have made these books some of the most widely cited works in L2 speech research. Wayland's volume clearly emerges as a new such landmark, which, like its predecessors, will no doubt spur the growth of this field further in the years to come.

Importantly, this volume is a homage to the late Susan Guion Anderson, professor of Linguistics at the University of Oregon, who passed away in 2011. The editor, Ratree Wayland, explains in the Preface how this volume is closely linked to her research trajectory. Susan Guion Anderson was a leading researcher in general and historical phonetics and L2 speech, whose theoretical and empirical contributions to phonetic research have inspired the work of many scholars. In this sense, the volume very appropriately touches upon a series of issues that reflect Susan's interests and contributions, such as the acquisition of lexical stress in the L2, the role of attention in L2 learning, and the development of theoretical models like Best's Perceptual Assimilation Model (PAM, Best, 1995) and Flege's Speech Learning Model (SLM, Flege, 1995), all represented in this volume. Furthermore, many contributions are the work of her collaborators.

Second Language Speech Learning: Theoretical and Empirical Progress is a 20-chapter volume that provides a state of the art overview of the main issues in L2 speech research through overview chapters and empirical studies. The volume is organized in five parts: part I presents the main theoretical contributions (and their corresponding practical applications), parts II and III focus on research at the segmental and suprasegmental levels, respectively, while the last two parts present the results of original empirical studies on the issues of accentedness and acoustic features (part IV) and cognitive and psychological factors in L2 speech learning (part V).

Part I (Theoretical Progress) begins with the formal presentation of the revised version of Flege's SLM by Flege and Bohn (SLM-r, Chapter 1). This is the first comprehensive description of the revised model and constitutes one of the main reasons why this volume will raise great interest among scholars in this field. The chapter presents an overview of the findings that motivated the first model and the need for a revision, with a thorough description of the model's assumptions and hypotheses, explaining the similarities and differences between the original and the revised versions. While the model retains its focus on how sequential bilingual speakers' L1 and L2 systems interact and evolve over the life-span, the emphasis is not so much on age-related limitations but rather on the role and the nature of the (L1 and L2) input, the state of L1 development, and the amount of L1 and L2 use. Conveniently, the proposals of the SLM-r are illustrated in Chapter 2, in which Flege, Aoyama and Bohn apply the model's claims to a specific L2 speech learning case, the acquisition of the English /l/-/r/ distinction. Chapter 3 is of a practical nature. In it, Flege addresses a series of methodological issues, including how to evaluate and estimate crucial

measures such as amount of language use, quantity and quality of L2 input, and L2 category formation as well as data elicitation procedures. The chapter is an excellent complement to the SLM-r's description in Chapter 1, and its methodological proposals will undoubtedly be of great interest to researchers in the field. In a similar vein, Tyler's contribution (Chapter 4) will also be very welcome as it explains the four sources of information that listeners may use in order to discriminate non-native contrasts, while reviewing some of the main characteristics and most recent developments of the PAM and concluding with a few methodological considerations. This first part of the volume concludes with Tremblay's critical review chapter on the acquisition of lexical stress (Chapter 5), both from the perspective of learners' stress placement and production and of the perception and processing of lexical stress, illustrating a shift of focus from more generative or phonological views to more statistical or phonetic approaches.

Part I takes up about one third of the book. The four remaining parts present a collection of original empirical L2 studies on a variety of topics. Part II (Segmental Acquisition) includes three chapters. Chapter 6 illustrates that markedness is a better predictor of L2 English obstruent identification accuracy by Mandarin and Korean learners than L1-L2 mappings. Chapter 7 presents an acoustic analysis of the production of English /s/ by children and adults who were either English native speakers or Japanese learners of English and concludes that formation of L2 categories may be a slow process. Also involving English native speakers and Japanese L2 English speakers, Chapter 8 describes how contextual effects affect the perception of pre-nasal American English vowels by both populations, although in different ways. Part III turns its focus to suprasegmental acquisition (Acquiring Suprasegmental Features). The production and discrimination of Southern Vietnamese tones by native and Khmer speakers is analyzed in Chapter 9, showing that factors like age and education affect L2 production and perception, respectively. Chapter 10 also examines tones, reporting that articulatory demands may predict the level of tone production difficulty by Spanish-speaking children with two years of experience learning Mandarin at school. Results point to the need for auditory or gestural training regimes as a more efficient method of teaching L2 tones. Chapter 11 explains that, like native English speakers, advanced Arabic learners of English make use of duration and amplitude cues to signal stress distinctions in English but use F0 cues in an L1 fashion and fail to produce vowel reduction. The last chapter in part III (12) examines variability in speaking rate in native and non-native English speech and reports greater variability in the latter, which is unrelated to the amount of variability found in the L2 speaker's L1.

Part IV (Accentedness and Acoustic features) begins with a chapter (13) examining the production of two-syllable words by L2 English speakers of different L1 backgrounds and reports that both segmental and suprasegmental features are correlated with accentedness ratings, although the main predictors of foreign accent vary depending upon L1 background. Chapter 14 explores whether an Interlanguage Speech Intelligibility Benefit, often reported for low proficiency learners, may also emerge for more advanced learners. The results of a study involving Mandarin-accented English sentences provide partial support and point to directions for future research. The last chapter in Part IV (15) reports on English-accented Japanese and shows that higher foreign accent ratings appear to be related to mispronunciations involving prosodic features while lower ratings are linked to segmental features. The last set of chapters (Part V: Cognitive and Psychological Variables) consists of five contributions. The first (Chapter 16) analyzes the relationship between fluency measures such as presence and duration of pauses and native English speakers' subjective impressions of listening effort, intelligibility and acceptability of L2 speech samples, and also investigates

the roles of L2 proficiency and working memory capacity. Chapter 17 investigates the role of cognitive abilities in the perceptual learning of Vietnamese consonants and tones by naïve English speakers, showing that the effect of cognitive abilities may differ depending on the type of contrasts and the level of linguistic processing required by different types of linguistic tasks. Chapter 18 presents the results of an empirical study evaluating the effects of (in)congruent auditory priming on Mandarin speakers' production of English vowel contrasts, showing a facilitatory priming effect for the tense-lax high front (but not back) vowel contrast. The influence of a speaker's indexical attributes, namely masculinity, on the identification of English fricatives is explored in Chapter 19, which shows that in the case of Japanese (but not English) speakers perception of English fricatives is affected by how prototypically masculine the voice in the stimulus is. The last chapter in Part V, and the volume, Chapter 20, explores the effect of selective attention in the phonetic training of non-native consonant and tone contrasts. The results indicate that two sessions of identification training may result in significant improvement in the discrimination of the targeted contrasts but have no effect on the untargeted contrasts.

This volume has many strengths which derive from the inclusion of important theoretical developments (particularly the SLM-r), original empirical studies, and valuable methodological suggestions. Among its strengths is the variety of topics and phonological features that are the object of study. In addition to studies on consonant and vowel perception and production, there is ample representation of work on suprasegmental features such as stress, speech rate and tone. The chapters also present studies on L2 speech intelligibility, accentedness and fluency, as well as on word learning and cognitive abilities, auditory priming and gender effects. Furthermore, the target language is not always English, and in three chapters English is neither the target nor the first language. The volume thus offers a more representative and universal view of L2 speech acquisition.

In terms of weaknesses, perhaps the length of the first chapter and the variability in the potential interest of the individual contributions could be mentioned. Regarding the former, Flege and Bohn's lengthy presentation of the SLM-r (about 80 pages) may initially alarm some readers. However, the long read is in fact amply justified by the relevance of the revision and the need to evaluate its evolution since the 1990s. Further, the chapter is clearly structured with useful highlights and helpful summaries of the main points that provide continuous guidance to the reader. In terms of coherence, the content of the book as a whole is highly consistent although not without discrepancies. For instance, the reader may find Tyler's and Flege and Bohn's views on the best way to measure cross-linguistic similarity somewhat contradictory (forced-choice categorization vs. rated dissimilarity, respectively). This apparent discrepancy is in itself not a problem but rather food for thought that can spur interesting and relevant future research. The division of the book into thematic parts strengthens the structure and organization the book and provides cohesion. However, perhaps inevitably, the nature of each individual contribution varies from chapter to chapter in terms of its general interest and potential impact. This is not unexpected for a book of this size and scope. In fact, one of the book's main strengths is that it will appeal to researchers on L2 speech focusing on a variety of different topics, areas of speech and empirical approaches. Further, in addition to providing a summary of the state of the art of a given L2 speech issue, many chapters end with directions for further research. This volume will thus become a reference book and source of inspiration for researchers in L2 speech and many related areas.

For all these reasons, I reiterate my belief that this publication will make an enormous and very welcome contribution to the field of L2 speech learning and will be highly influential in the development of L2 speech research for years to come, paving the way for the next such future collection of published works.

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