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Cognitive Individual Differences in Second Language Acquisition: Theories, Assessment and Pedagogy, by Zhisheng (Edward) Wen, Richard L. Sparks, Adriana Biedroń, Mark Feng Teng. De Gruyter Mouton (2023) (XII + 373 pp) ISBN 978-1-61451-676-7

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Why does learning a second language (L2) seem so challenging for adult L2 learners? For a young learner, this might not be the same. Why can a learner learn an L2 better than other learners? What makes learning a target language so intricate? These are some of the questions we always ask as L2 teachers. Research has found that learning an L2 is one of the most challenging tasks an adult learner can handle (Luque & Covey, 2023). However, current literature shows that several factors can contribute to learning an L2, such as aptitude, motivation, and personality as the primary subsets of individual differences (IDs) (Skehan, 1989; Sun et al., 2024). These factors have been proven to play a significant role in the L2 learning process. However, it is the cognitive factors that genuinely affect the patterns of thought that regulate how individuals perceive and process information remarkably (Price, 2004). The book "Cognitive Individual Differences in Second Language Acquisition," authored by Zhisheng (Edward) Wen, Richard L. Sparks, Adriana Biedroń, and Mark Feng Teng, is a comprehensive resource that focuses on cognitive differences among learners. It reviews the roles of cognitive variables such as age, intelligence, working memory, and anxiety in second language acquisition and their pedagogical outcomes.

The book stands out for its comprehensive review of the current state of research on individual differences and its unique approach that bridges cognitive science, psychology, and applied linguistics. Each chapter goes beyond a simple field review to explore current approaches' theoretical and empirical limitations. This volume confirms that individual differences are important in L2 learning. The book is divided into four main parts, each focusing on a distinct set of cognitive variables: age, intelligence, aptitude, and affect (Part I), memory, attention and

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noticing (Part II), learning strategies, metacognition, and self-regulation (Part III), and L2 skills, learning difficulties, and anxiety (Part IV).

One crucial aspect of L2 acquisition is understanding the relationships between learning, cognition, and individual differences. These aspects pave the way to better deal with the learning process. In the book's foreword, Peter Skehan, a distinguished researcher in the field, provides an insightful introduction focusing on cognitive individual differences. Skehan highlights the contrast between universalist approaches in SLA, which emphasize common learning patterns across all individuals, and differential approaches, which focus on how learners' cognitive differences influence their learning experiences.

One of the common beliefs about learning an L2 is that the age at which one starts learning affects the ease and rate of L2 learning. Some L2 learners are often discouraged hearing that learning an L2 can be too challenging for them due to their age constraints. As an L2 learner, we might accept this view. However, in the first part of this book, Adriana Biedroń explores the age factor and the Critical Period Hypothesis. She critiques the view that younger learners are universally more successful in learning an L2, pointing out that older learners can outperform younger ones in specific contexts, particularly when explicit learning and cognitive maturity are involved. This chapter challenges the assumption that younger people are always better at SLA.

In her chapter on intelligence (Chapter. 3), Biedroń questions the common belief that traditional IQ tests are good indicators of success in learning a second language. She suggests that measured intelligence may not entirely trigger the range of cognitive abilities that contribute to language learning. For example, emotional and social intelligence may play a significant role in language acquisition. However, these forms of intelligence are often overlooked in SLA research. This chapter encourages readers to reconsider how intelligence is defined and measured in the context of language learning. In Chapters 4 and 5, she also focuses on language aptitude, explicating that it can be developed through practice and instruction. This chapter is valuable for teachers and researchers interested in how teaching methods can be adapted to assist learners with various levels of language aptitude.

One of the main issues we face as L2 learners is remembering what we have learned, for instance, grammar rules and new words. We sometimes assume our memory is not working actively. In this regard, Zhisheng (Edward) Wen's working memory and attention chapters (Chapters 6 and 7) provide some of the most theoretically rich contributions to this aspect and answer our questions on learning and memory. Wen thoroughly reviews the relationship between working memory and language acquisition. These chapters cast light on the importance of conscious learning, whereas he challenges the overemphasis on conscious attention, suggesting that unconscious learning mechanisms may also play a crucial role.

In Chapter 8 Mark Feng Teng focuses on learning strategies, metacognition, and self-regulation. He provides a comprehensive overview of learners' different strategies to acquire a second language, such as cognitive and social strategies. In this regard, he critiques the simplistic approach of teaching strategies in isolation. He argues that learners must develop a deeper understanding of when and how to apply strategies effectively. Chapter 8 is particularly relevant for language educators, attaching importance to adaptive strategy use and the need for teachers to use strategies according to the learners' needs. Further, Teng's discussion of metacognition (Chapter 9) is another seminal contribution of the book. He argues that more metacognitively aware learners tend to perform better in language tasks because they can regulate their learning more effectively, leading to self-regulation. These chapters are particularly valuable for teachers who strive to support their students in developing metacognitive awareness and self-regulation skills.

Richard L. Sparks wrote the final part of the book (Chapters 11, 12, and 13). Rooted in his lifelong research, he focuses on L2 reading and writing skills, learning difficulties, and anxiety. This chapter equips readers with two models that can be frameworks for understanding how cognitive skills contribute to literacy in a second language. Sparks levels criticism at the tendency in SLA research to prioritize speaking and listening over reading and writing. In that manner, he argues that literacy skills are just as essential for language learners. Chapter 11 provides practical strategies for assessing and teaching reading and writing in the L2 classroom. Sparks also addresses learning difficulties and disabilities in SLA, challenging the assumption that some learners are inherently less capable of learning a second language due to cognitive disabilities. He advocates for more inclusive teaching practices that recognize the diverse needs of learners and adapt instruction accordingly.

Furthermore, in his chapter on anxiety (Chapter12), Sparks argues that L2 anxiety is not only an affective variable but is closely linked to cognitive factors, such as language aptitude and working memory. He suggests that learners with lower language aptitude may be more susceptible to anxiety because of their cognitive difficulties. This chapter challenges traditional views of anxiety in SLA and offers new insights into how cognitive and affective factors interact to shape language learning outcomes.

Despite its many strengths, this volume has some limitations. While the book comprehensively examines cognitive factors, the authors could have complemented the book discussing SLA's social and affective dimensions as well. Although anxiety and motivation are mentioned, these factors are discussed primarily concerning cognitive processes without fully exploring their broader impacts on language learning. Furthermore, the book does not address newer research on multimodal and technological learning environments and their relationship with individual differences, which is a significant oversight. For instance, with the advancement of digital literacy, many language learners now use apps, online platforms, and multimedia resources that present unique cognitive demands. Including chapters on how digital literacy affects learners would have been valuable. The absence of this discussion is particularly notable given the growing and crucial role of technology in language learning processes.

In conclusion, Cognitive Individual Differences in Second Language Acquisition is a valuable addition to SLA research as a viable reference book. It comprehensively explains key cognitive variables and their impact on language learning. We recommend this book to researchers and language teachers as it critically engages with theories, provides a detailed investigation of cognitive factors, and attempts to bridge theory and practice.

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