

## BOOK REVIEW

Sadia Belkhir (ed.), *Cognition and Language Learning*. Newcastle-upon-Tyne: Cambridge Scholars Publishing, 2020. Pp xiv + 157, including tables, references and appendix. ISBN 978-1-5275-4482-6.

*Cognition and Language Learning* is a collection of papers edited by Sadia Belkhir. The book, which grew out of the Cognition and Language Learning Symposium, held in February 2019 at the Mouloud Mammeri University, Tizi-Ouzou, Algeria, aims to respond to the increasing need for innovative research that examines the inter-relationship between cognition and language learning. It brings together multi-disciplinary researchers to produce contributions that “jointly represent current forward-looking research in the interdisciplinary field of cognitive linguistics and education” (p. 5). Working with the understanding that exploring the link between language and cognition generally may shed light on the role cognition plays in foreign language learning, the nine chapters of the book report research findings from studies that employed an array of methods – questionnaires, experiments, and quasi-experiments – to investigate the relationship between cognition and aspects of language learning mainly in EFL/L3 contexts such as language processing, vocabulary memorization and attrition, metaphor identification, phoneme perception, motivation, anxiety, and code-switching. The chapters are generally well written and cover a breath of interesting topics and an array of methodologies in second/foreign language learning. The chapters, apart from Chapter 9, largely follow a consistent structure/sectioning and sub-sectioning with references at the end of each chapter.

In Chapter one (pp. 1–12), Sadia Belkhir introduces the volume by providing an account for the shift from behavioural to cognitive theories in language learning. Second, she gives a brief overview of relevant literature on cognition and language learning, providing a strong justification for studying language learning from a cognitive science perspective. In this regard, she eulogizes some key researchers, e.g., George Lakoff, Mark Johnson, Len Talmy, Ronald Langacker, and Zoltan Kövecses, whose works have greatly impacted research in the Cognitive Linguistics enterprise, and particularly shaped current understanding of the relationship between cognition and language. The chapter pays particular attention to authors whose research has focused on different aspects of cognition and L2 learning from a cognitive perspective, e.g., Robinson and Ellis (2008). She identifies current research directions into cognition and

language learning to include psycholinguistic, second language acquisition (SLA) and Cognitive Linguistics. The chapter then describes the major objectives of the book and finally provides an outline and a brief overview of the remaining chapters in the book.

Kamila Amour discusses meta-cognition awareness among EFL students in Chapter two (pp. 13–24). She relies on quantitative methods to investigate how third-year university (EFL) students in Algeria read narrative texts in English and whether or not they are fully aware of their reading strategies. Findings of her study showed that, while these students used a variety of reading strategies, word-track strategies were the most frequently used. However, many participants had very little metacognitive awareness, i.e., were not aware of their reading strategies in their L3. While Kamila's first finding corroborates the general cognitive science assumption that previous knowledge serves as a building block (schema) for structuring new information, her second finding is a departure from findings from previous studies, e.g., Block (1992), Sheorey and Mokhtari (2001), which suggested that EFL students were aware of their metacognitive strategies just like native speakers. Based on her findings, Kamila concludes that EFL students may need help in raising their meta-cognitive awareness levels because they are neither well equipped nor well prepared for deep reading tasks that require the selection of reading strategies and metalinguistic awareness. Consequently, she offers the following four suggestions that EFL teachers may use to raise their students' meta-cognitive awareness levels: (i) giving explicit instruction on the use of reading strategies in reading narrative texts; (ii) helping EFL students focus on procedural knowledge; (iii) focusing on the generic structure of words; and (iv) varying reading strategies according to text type and the objective of the reading task.

In Chapter three (pp. 25–42), Fatima Zohra Chalal examines vocabulary attrition among native adult Kabyle multilinguals who speak English as a foreign language (L4), but who do not use it frequently. Using an experiment to test a hypothesis in the Savings Model of Attrition Theory, the study tests relearning and acquisition stages of vocabulary learning of multilingual participants. Findings from the study support the Savings Model: participants performed better at recall tasks (relearning) than acquisition. While the author clearly accepts the limitation of using a single experiment about only vocabulary to make conclusions about language attrition in EFL contexts, this study nevertheless highlights important differences among key concepts in the field, e.g., language shift, language loss, language death, and language attrition. The author concludes the chapter by outlining some implications of language attrition for foreign language teaching and learning, and proposes measures that may be taken to reduce the risk of language attrition among foreign language learners.

In the fourth chapter (pp. 43–62), Sadia Belkhir presents a report on a small-scale experiment she conducted with a group of EFL students in order to determine the potential effect of MIP (Metaphor Identification Procedure; Group, 2007) on their cognitive ability to identify metaphors in written discourses. The study demonstrates that MIP is able to only partially help EFL students in the process of metaphor identification, as participants could not identify many metaphors even with MIP. She therefore suggests that for MIP to be used as a tool to increase EFL students' proficiency in metaphor identification in written (academic) discourses, it must be complemented with additional data on conceptual metaphors and their linguistic realizations. While this finding may not be generalizable because of the limited number of participants in the experiment, as well as other factors enumerated by the author in the chapter, the study throws light on the debate in cognitive linguistics about the role of culture in metaphorical conceptualization (Maalej, 1999; Kövecses, 2004, 2005; Ansah, 2014). In my view, the EFL students could not identify many metaphors even with MIP probably because they had less sophisticated cultural knowledge of the target language.

In Chapter five (pp. 63–72), Georgios P. Georgiou employs vowel assimilation and vowel contrast tests to discuss L2 vowel perception among Arabic–Greek bilinguals in Algeria. The study was designed to investigate how native adult Egyptian-Arabic speakers of Greek as an L2 assimilate L2 vowels into L1 phonological categories as well as their ability to discriminate challenging L2 vowel contrasts. Participants in the study assimilated several L2 vowels into their L1 phonological categories and discriminated a few challenging L2 vowels only to a moderate degree. These findings corroborate earlier findings in the SLA literature (e.g., Flege, 1995; Flege & Mackay, 2004; Grimaldi et al., 2014).

Amel Benaïssa's quasi-experiment in Chapter six (pp. 73–92) aimed to test three aspects of vocabulary acquisition, i.e., passive vocabulary, active control vocabulary, and active free vocabulary among first-year university (EFL) students. Using pre- and post-vocabulary tests, she evaluated the effect of online quizlets and digital flashcards on retention and retrieval of new words among the participants. The findings of her study suggest that the use of online quizlets and digital flashcards support vocabulary enhancement in foreign language learning. The study links the use of quizlets and flashcards in vocabulary learning to the Deliberate Approach to vocabulary learning which emphasizes cognitive processes such as attention, rehearsal, and retrieval, which are believed to be necessary for a transfer between short-term memory and long-term memory, an interaction that is needed for successful learning not only in EFL but indeed learning in any field.

In Chapter seven (pp. 93–124), Nora Achili discusses learner motivation in language learning in the light of attribution theory. Using a causal attribution questionnaire and descriptive statistics, the author measures attributors'

significance in relation to students' perception of language learning failure/success. The study reports that, while most advanced EFL students attributed their success in EFL learning to intrinsic motivation, e.g., personal effort, they attributed their failures to both internal and external attributions, e.g., lack of personal effort, bad teaching. The findings of this study corroborate findings from seminal research that connect affective factors like motivation and attitudes to language learning success (Gardner & Lambert, 1972; Krashen, 1982; Lantolf, 1994).

Katia Berber examines the relationship between anxiety, another affective factor, and cognitive processing in foreign language learning in Chapter eight (pp. 125–140). With the aim of measuring the levels of anxiety among EFL students, the author employs a descriptive case study of first-year EFL university students in Algeria in order to ascertain the levels of anxiety among participants during the input, processing, and output stages of language learning, and also how the level of anxiety impacts students' cognitive activities. Her findings show high levels of anxiety among participants at all three levels. Consequently, the author concludes that anxiety is the most influential inhibitor in EFL/ESL student performance because “anxiety arousal can cause several difficulties for language students and can interfere with on-going cognitive activity” (p. 125). Perhaps the results of this study are influenced by the category of EFL students, as high levels of anxiety may be a common characteristic of many first-year university students. The author indirectly acknowledges this as a limitation when she recommends future studies in this area to “include more EFL students at different study levels in order to compare the degree of anxiety experienced by beginner, intermediate and advanced learners” (p. 138).

The final chapter of the book, Chapter nine (pp. 141–154) examines EFL students' perception of the role that code-switching plays in the EFL classroom. Hanane Ait Hamouda employs online questionnaire and qualitative methods to determine whether EFL students in Algeria considered code-switching as a barrier to the cognitive process of production in their L3 English. The results of her study indicate that EFL students saw code-switching as a “communicative tip” (pp. 146–147) and that it did not appear to interfere with their production in English. This chapter departs from the almost consistent format/structure of the first eight; it has a duplication of section titles in 2.2.2 and 4.2, both titled ‘Language Production’.

*Cognition and Language Learning* is an ambitious book because it aims to highlight the interplay between cognition and language learning through a coalition of studies that investigate how cognition affects multiple language learning activities. By exemplifying how a wide range of cognitive processes are involved in different aspects of (foreign) language learning, the book achieves this aim and corroborates research findings from other contexts that establish

an inter-relationship between cognition and language (learning). Indeed, the book contributes to the language and cognition literature by bringing evidence from an African context which is usually under-represented in the SLA/EFL/Language and Cognition literature. Nevertheless, the studies in this book are localized with a focus on foreign language learning in Algeria. This localization makes the title of the book a bit too general for what it covers. The title *Cognition and Language Learning* creates the impression that the book is going to discuss this topic from a broad perspective, including first and second language learning. However, while eight of the nine chapters discuss foreign language learning, i.e., Kachru's expanding circle (Kachru, 1985), only one discusses second language learning (Kachru's outer circle), and none discusses the role of cognition in first language acquisition (Kachru's inner circle). While it is established in the literature that some cognitive processes appear relevant to human language learning in all contexts, e.g., categorization and pattern finding ability (Tomasello, 2009), it is also important to note that human cognition is mediated and shaped by human interaction with the environment, e.g., culture (Sharifian, 2014). In this regard, it stands to reason that the dynamics of inter-relationships between cognition and language learning are likely to vary in different language learning contexts/environments. Thus, a title like *Cognition and Foreign Language Learning* would have been more appropriate for this book.

A second disadvantage of using localized studies in this book is that it is difficult to generalize the findings. Using data from students from one academic unit only renders the sets of data presented in the book too limiting to reflect how the many different aspects of cognition investigated might work in contexts that are different from that of the Department of English at Mouloud Mammeri University, Algeria. Another dimension of localization may be described in terms of the focus in this book on experiment-based studies. While the experiments and quasi-experiments are well explained and can be easily replicated by other researchers, including graduate students and early career researchers, the book leaves out thriving directions of research in language and cognition, e.g., emotion and language learning (Pavlenko 2007), and culture and language learning, that are equally important. For instance, *The Routledge Handbook of Language and Culture* (Sharifian, 2014) is a recent development and research initiative with focus on cultural cognition and language learning. Finally, some sections of the book, e.g., the beginning of Chapter 5, are presented in a rather technical language which may not be appreciated by non-expert readers.

These minor issues notwithstanding, the authors, through the book, offer great insights into the interplay between cognition and (foreign) language learning. By linking theory to practice through the offer of practical suggestions/recommendations for improving foreign language teaching and learning,

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*Cognition and Language Learning* demonstrates the relevance of cognitive linguistics to educational linguistics. It will definitely be a valuable addition to the reading list of EFL/ESL and applied linguistics courses, especially at graduate level.

## REFERENCES

- Ansah, G. N. (2014). Culture in embodied cognition: metaphorical/metonymic conceptualizations of FEAR in Akan and English. *Metaphor and Symbol* **29**(1), 44–58.
- Block, E. L. (1992). See how they read: comprehension monitoring of L1 and L2 readers. *TESOL Quarterly* **26**(2), 319–343.
- Flege, J. E. (1995). Second language speech learning: theory, findings, and problems. In W. Strange (ed.), *Speech Perception and Linguistic Experience: Issues in Cross-language Research* **92** (pp. 233–277). Timonium, MD: York Press.
- Flege, J. E. & MacKay, I. R. (2004). Perceiving vowels in a second language. *Studies in Second Language Acquisition* **26**(1), 1–34.
- Gardner, R. C. & Lambert, W. E. (1972). *Attitudes and Motivation in Second-Language Learning*. Rowley, MA: Newbury House.
- Grimaldi, M., Sisinni, B., Gili Fivela, B., Invitto, S., Resta, D., Alku, P. & Brattico, E. (2014). Assimilation of L2 vowels to L1 phonemes governs L2 learning in adulthood: a behavioral and ERP study. *Frontiers in Human Neuroscience* **8**, e2014.00279.
- Group, P. (2007). MIP: a method for identifying metaphorically used words in discourse. *Metaphor and Symbol* **22**(1), 1–39.
- Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: the English language in the outer circle. In R. Quirk & H. G. Widdowson (eds), *English in the world: teaching and learning the language and literatures* (pp. 11–30). Cambridge: Cambridge University Press.
- Kövecses, Z. (2004). Introduction: cultural variation in metaphor. *European Journal of English Studies* **8**(3), 263–274.
- Kövecses, Z. (2005). *Metaphor in Culture: Universality and Variation*. Cambridge: Cambridge University Press.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Lantolf, J. P. (1994). Sociocultural theory and second language learning: introduction to the special issue. *Modern Language Journal* **78**(4), 418–420.
- Maalej, Z. (1999). Metaphor making and processing. *Journal of Literary Semantics* **28**, 105–123.
- Pavlenko, A. (2007). *Emotions and Multilingualism*. Cambridge: Cambridge University Press.
- Robinson, P. & Ellis, N. C. (eds) (2008). *Handbook of Cognitive Linguistics and Second Language Acquisition*. New York and London: Routledge.
- Sharifian, F. (ed.) (2014). *The Routledge Handbook of Language and Culture*. London and New York: Routledge.
- Sheorey, R. & Mokhtari, K. (2001). Coping with academic materials: differences in the reading strategies of native and non-native readers. *System* **29**(4), 431–449.
- Tomasello, M. (2009). *Constructing a Language*. Cambridge, MA: Harvard University Press.

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