

Chuanren Ke (ed.). (2018). *The Routledge Handbook of Chinese second language acquisition*. Milton Park, Abingdon, Oxon; New York, NY: Routledge. Routledge Language Handbooks 471 pp. ISBN 978-113894-660-6 (Hardcover, also available as e-book).

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The Routledge Handbook of Chinese Second Language Acquisition covers a wide range of cutting-edge themes in the acquisition of Chinese as a second language (CSL). It is the first handbook that brings together comprehensive research perspectives on Chinese second language acquisition (SLA). The *Handbook* is intended to serve as a reference for Chinese language teachers, university students and researchers who are interested in understanding the theories of Chinese SLA, improving teaching strategies, and conducting further studies.

The *Handbook* comprises twenty chapters from leading international experts in the field of Chinese SLA. The chapters are further divided into four parts based on the main theme of each chapter.

Part I contains five articles (Chapter 1 to 5) introducing the major linguistic theories and methodological approaches in Chinese L2 learning and teaching, with representative studies and findings. Chapter 1 (Ping Li and Jing Yang) presents the findings of representative neuroscience studies on cognitive and linguistic processing in CSL. To help readers understand brain-based approaches applied by researchers in the field, Li and Yang provide a short overview of four most commonly used neuroimaging techniques: functional magnetic resonance imaging (fMRI), event-related potentials (ERP), structural magnetic resonance imaging (sMRI), and diffusion tensor imaging (DTI). Also, they introduce two typical research paradigms, artificial language learning (ALL) and natural language learning (NLL), followed by a discussion of interconnected brain network analyses in L2 learning and processing. To highlight the significance of applying neurocognitive approaches to L2 learning in Chinese, furthermore, the authors focus on two linguistic features that distinguish Chinese from other (Western) languages, lexical tones and logographic writing system.

Chapter 2 (Ning Yu and Ben Pin-Yun Wang) discusses how cognitive linguistics (CL) approaches can shed light on the understanding of Chinese SLA. Yu and Wang review representative empirical Chinese SLA studies based on five interrelated CL theoretical concepts: motivation, categorization, construal, figurative language (metaphor and metonymy), and construction. For example,

drawing on cognitive-functional linguistics, they discuss how iconicity, as one of the linguistic motivations that exemplify the association of human conceptualization of the world and linguistic forms, can help language teachers understand word order errors in L2 Chinese (Jiang 2009). Also, prototype categorization can be used to explain SLA of polysemous phrases and design pedagogical practices. This chapter elucidates the great potential of using CL approaches to innovate empirical research and pedagogical practice in Chinese SLA.

Chapter 3 (Jie Zhang and Hongyin Tao) introduces the application of learner corpora (LC) in CSL to discover the characteristics of learner language. Also, some commonly used LC in learner corpus research (LCR) are briefly summarized and presented for reference in the chapter. Two core issues, learner language and learner variability, are discussed with representative research findings. Zhang and Tao emphasize the advantages of adopting LC to analyze learner errors and language usages, such as first language (L1) transfer and acquisition order. They further suggest that the findings from LCR research should be considered for designing textbooks, teaching materials and assessment measures. For future directions, the authors believe syntheses and rigorous statistical methods for LCR are needed to help better inform and improve CSL learning and teaching.

Chapter 4 (Zhuo Jing-Schmidt and Xinjia Peng) offers an overview of the four major theoretical frameworks that have played a significant role in the field of teaching Chinese as a second language (TCSL). They are: Formal Linguistics, Functional Linguistics, Cognitive Linguistics, and Sociocultural Theory. Most important of all, Jing-Schmidt and Peng indicate the predicament of the power imbalance between linguistic theory and second language pedagogy in Chinese linguistics. The authors call on theoretical and empirical research in the field to recognize the theory-practice dualism and focus on the applicability of theory and research for pedagogical practice. In this way, Chinese language teachers can take advantage of linguistic theories and research findings to improve the field of TCSL.

Chapter 5 (Patricia Duff and Liam Doherty) reviews both linguistic and cultural aspects of language socialization (LS) with regard to research in Chinese second language socialization (SLS). Duff and Doherty examine Chinese SLS research focusing on three categories of learners: heritage language learners (HLLs), bilingual immigrants to the US/UK, and CSL students embedded in informal, immersive contexts. They further indicate the lack of longitudinal studies on native and non-native English speakers' CSL development. For future directions, they specify seven research areas that may help clarify the unresolved questions in the field.

Part II covers seven articles concerned with L2 Chinese skills development in literacy (Chapter 6 and 7), grammar (Chapter 8), phonology (Chapter 9),

speaking (Chapter 10), pragmatics (Chapter 11) and listening comprehension (Chapter 12). Chapter 6 (Tianlu Zhang and Chuanren Ke) examines the empirical research on L2 Chinese character learning and teaching. Zhang and Ke review the research findings and introduce common research approaches by categorizing them into three aspects. First, they discuss radical functional salience and learners' radical knowledge from semantic, phonetic and structural facets. Second, they raise the issue of L1 transfer effect on L2 Chinese character acquisition among learners with different L1 backgrounds, and further discuss types of Chinese character learning strategies (CCLS) used by L2 Chinese learners. Third, they present the main curricular issues regarding character instruction. This chapter not only aims to draw teachers' attention to learners' orthographic awareness levels to adjust their character teaching approaches, but also points out the remaining issues of L2 Chinese character research.

Targeting at reading development in CSL, Chapter 7 (Helen H. Shen) synthesizes research on L2 learners' cognitive and non-cognitive processing in terms of lexical access and text comprehension. Different from Zhang and Ke (Chapter 6) who focus on character acquisition, Shen emphasizes the development of morphological knowledge and word segmentation skills in CSL reading. Furthermore, the author concludes that the unique linguistic features of the Chinese orthographic writing system and learners' L1 background are the two main factors that affect L2 Chinese learners' reading processing and learning strategies. Hence, teachers should take them into account when designing reading curricula and instruction actions.

Chapter 8 (Yuan Lu and Chuanren Ke) reviews two historically important research areas of grammar development (GD) in CSL, error analysis and generative grammar. To synthesize the studies of L2 Chinese GD with diverse epistemologies, Lu and Ke address ten sub-areas and examine the primary studies respectively. Furthermore, they refer to major SLA theories and offer a general overview of six promising research approaches for L2 Chinese grammar research, followed by pedagogical suggestions. For future directions, they call on researchers to expand their theoretical and methodological frameworks and recruit L2 Chinese learners with different L1 backgrounds and proficiency levels.

Chapter 9 (Hang Zhang) covers an understudied area in Chinese SLA, the sound system of Modern Standard Chinese. Zhang reviews research on both segmental and supra-segmental features of L2 Chinese phonology, with a focus on the acquisition of Chinese lexical tones. In general, the existing studies have found that L2 Chinese learners with a tonal L1 background may be good at distinguishing L2 tones, but the lack of L2-L1 tonal mapping may hinder the learning of L2 tones. Moreover, the third tone (T₃) poses the most problems in L2 tonal acquisition.

Chapter 10 (Jianling Liao) examines empirical research on the acquisition and assessment of L2 Chinese speaking within both theoretical and practical contexts. In addition, the chapter presents the major Chinese speaking proficiency scales and guidelines used to assess L2 Chinese learners' speaking proficiency. Liao reviews L2 Chinese speaking acquisition studies concerning cognitive and social frameworks, focusing on four issues: developmental path, individual differences, instructional factors, and cross-modality effects. Also, the author explores current studies of L2 Chinese speaking assessment tools from four aspects: test method validation, test construct validation, test design, and rating effects.

Chapter 11 (Li Yang) indicates interlanguage pragmatics (ILP) as an under-explored area in Chinese SLA. Yang reviews existing pragmatic studies focusing on developmental, environmental, and instructional issues. In general, the author points out, the majority of studies are concerned with learners' production of speech acts but neglect the importance of pragmatic comprehension. To provide new insights into L2 Chinese learners' ILP, the author calls on future research to study the trend of pragmatic development and expand current theoretical paradigms to cognitive and social scopes.

Chapter 12 (Wei Cai) scrutinizes major L2 listening theories and pedagogy across languages and synthesizes current research findings of Chinese L2 listening. Cai presents the theoretical frameworks of cognitive processing based on Levelt (1993) and Anderson (1995). The author also addresses four main concepts pertaining to L2 listening: linguistic and non-linguistic knowledge, processing, fluency, and metacognition. In addition, Chinese tone perception and intonation, which are addressed in Chapter 9, are reintroduced as the factors affecting Chinese L2 listening. For future directions, the author emphasizes the need of systematizing and validating the instruction of listening strategies and the importance of quantitative studies on the relationships between diverse variables and overall L2 listening proficiency.

Part III contains five articles (Chapter 13 to 17) investigating sociocontextual factors and individual differences in L2 Chinese development. Chapter 13 (Celeste Kinginger, Qian Wu, and Sheng-Hsun Lee) presents current studies on Chinese SLA in study abroad contexts. The authors review the existing studies concerning three areas: (1) linguistic outcomes of study abroad, such as proficiency, fluency and modalities; (2) linguistic and intercultural self-concept; and (3) qualities of learning environments and learning processes. For future directions, they suggest researchers and teachers focus on exploring best practices in the design of study abroad programs, and the place of study abroad within language curricula.

Chapter 14 (Duanduan Li and Patricia A. Duff) addresses the issue of the lack of awareness of Chinese heritage language (CHL) students' special learning needs and goals in postsecondary contexts. Li and Duff cite their previous postsec-

ondary education research (Li & Duff 2008) and examine primary CHL learning studies concerning CHL learners' identities, communities, dialects, motivation, anxiety, and literacy development. The authors highlight the necessity of distinguishing the different contexts of learning and teaching and the importance of improving CHL-oriented curricula and the quality of CHL-specific materials.

Chapter 15 (Agnes Weiyun He), complementary to Chapter 14, focuses on the development of interactional competence (IC) in speaking Chinese as a heritage language (CHL). The chapter reviews current studies of interlanguage development from multiple time-scalar perspectives. Importantly, the author advocates for using an identity-centered, composite-lifespan approach to address the issues of CHL development on various levels and scales, such as settings, time spans, participant structures, and communicative resources.

Chapter 16 (Xiaohong Wen) discusses research on L2 motivation as a crucial factor of L2 engagement and success, drawing from various theoretical frameworks. The author notes that the research focus on L2 motivation has switched from Gardner and Lambert's (1959, 1972) social-psychological perspective to Dörnyei's (1994) cognitive-situated perspective, followed by a new shift to the socio-dynamic perspective. In view of this shift, Wen scrutinizes the existing motivation studies in the Chinese L2 context with particular attention to learner factors and motivation. The differences between heritage and non-heritage learners are addressed in this chapter again.

Chapter 17 (Han Luo) examines research on the relationship between foreign language (FL) anxiety and language achievement. Luo reviews FL anxiety research in terms of measures, sources, effects, factors, and types of anxieties, as well as anxiety-reducing strategies. Heritage language learners, as a unique learner group, are discussed with a special focus on within-group variables. Noting that current Chinese L2 anxiety research relies on self-report anxiety scales, quantitative approach and cross-sectional design, the author suggests future studies explore new anxiety measurements and adopt mixed-methods and longitudinal designs.

Part IV (Chapter 18 to 20) explores classroom instruction and technology in CSL. Drawing on cognitive psychology, Chapter 18 (Hong Gang Jin) discusses the role of implicit and explicit constructs in SLA and synthesizes L2 implicit and explicit research in three areas: (incidental and intentional) learning, knowledge, and instruction. Specifically, Jin emphasizes dual systems of learning (declarative knowledge and procedural knowledge), and reviews the existing studies on the learning of characters, vocabulary, syntax, and discourse. Moreover, the author indicates the dearth of CSL research applying meta-analysis to investigate implicit and explicit constructs.

Chapter 19 (Fangyuan Yuan) underscores the role of L2 Chinese classroom research in bridging the research communities and classroom instructors. In this chapter, Yuan explores the existing research on L2 Chinese classroom instruction, especially form-focused instruction and task-based language teaching (TBLT). For future direction, the author calls on researchers to investigate the application of classroom action research in a wider range of teaching contexts and settings, and for various instructional purposes.

Chapter 20 (Jun Da and Yanqun Zheng) advocates for computer assisted language learning (CALL) and highlights the advantages of using technologies in L2 Chinese teaching and learning. Da and Zhang synthesize CALL studies pertaining to the acquisition of Chinese characters and tones. In this chapter, the authors not only specify the advantages of CALL in Chinese SLA, but also encourage both teachers and researchers to re-examine the ways of learning CSL in terms of language input and expected learning outcomes and make use of new intelligent learning systems for CSL learning.

The *Handbook* is a remarkable contribution to the study of Chinese SLA, covering extensive theoretical and methodological grounds with the latest research findings and pedagogical implications. Unlike other publications specifically focusing on one or a few research areas or approaches in Chinese SLA, the *Handbook* has succeeded in accentuating the major research frameworks and findings to keep researchers and practitioners abreast of recent developments in Chinese SLA. Overall, three aspects characterize the strengths of this volume.

First, the chapters in this volume are well-organized and follow a common outline. Most of the chapters include historical perspectives, core issues and key findings, research approaches, pedagogical implications, future research directions, and (additional) references. This standard format helps readers locate a reference efficiently. While some research topics recur in multiple chapters, these are mutually complementary. Second, the quality of the *Handbook* is, undoubtedly, outstanding. The volume features twenty-nine leading researchers in Chinese SLA whose specializations and expertises shine in their respective perspectives on the state of affairs of L2 Chinese research and future directions. The volume is thematically rich and pedagogically informative. Moreover, different from other publications that restrict the content and length of each chapter, the *Handbook* has various lengths in each chapter depending on the importance of subtopics in the field. Third, the content of the *Handbook* is extensive but not exhausting. The volume is reader-friendly in that it attempts to provide a window into Chinese SLA for diverse readers, including both novices and professionals, by summarizing the representative studies in the field.

Notwithstanding the strengths listed above, the *Handbook* could make minor adjustments to be more coherent and accessible by following a more unitary

format. For example, although most of the chapters follow a common outline, Chapter 4 is structured by linguistic theories. In addition, ‘research approaches’ and ‘future directions’ are not separated from the section of ‘core issues’ in some chapters. These minor divergences might make it difficult for some readers to locate a reference later on. Moreover, as the longest chapter in the volume, Chapter 8 could have been more reader-friendly by moving the section of ‘research approaches’ before the section of ‘core features and key findings’ or narrowing research approaches down to studies that have been discussed in ‘core features and key findings’. Furthermore, considering the amount of research reviewed in the *Handbook*, each chapter could schematize the gists of the cited studies in a table, as Chapter 16 does. On another note, while Ke indicates that Chinese SLA studies have been limited to cognitive-oriented learning theories in the Introduction of the *Handbook*, the volume could benefit from a comparative discussion of the differences between on-line and off-line methods used for language processing studies (e.g., Jegerski 2013).

In conclusion, I highly recommend this book not only to undergraduate and graduate students who would like to get either a general view or specific and rich research ideas of Chinese SLA, but also to L2 Chinese language teachers who would like to make use of the research findings to improve their pedagogy, as well as to researchers who would like to find ways to fill the remaining research gaps in the field.

References

- Anderson, J.R. (1995). *Cognitive psychology and its implications*. New York, NY: Freeman.
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The Modern Language Journal*, 78(3), 273–284. <https://doi.org/10.1111/j.1540-4781.1994.tb02042.x>
- Gardner, R. C., & Lambert, W.E. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology*, 13, 266–272. <https://doi.org/10.1037/h0083787>
- Gardner, R. C., & Lambert, W.E. (1972). *Attitudes and motivation in second-language learning*. Rowley, MA: Newbury House Publishers.
- Jegerski, J. (2013). Self-paced reading. In J. Jegerski & B. Van Patten (Eds.), *Research methods in second language psycholinguistics*, 20–49. New York: Routledge.
- Jiang, W. (2009). *Acquisition of word order in Chinese as a foreign language*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110216196>
- Levelt, W.J.M. (1993). Language use in normal speakers and its disorders. In G. Blanken, J. Dittmann, H. Grimm, J.C. Marshall, & C.W. Wallesch (Eds.), *Linguistic disorders and pathologies: An international handbook* (pp. 1–15). Berlin: de Gruyter.

Li, D., & Duff, P. (2008). Issues in Chinese heritage language education and research at the postsecondary level. In A. W. He & Y. Xiao (Eds.), *Chinese as a heritage language: Fostering rooted world citizenry* (pp. 13–33). Honolulu: National Foreign Language Resource Center, University of Hawai'i at Manoa.

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