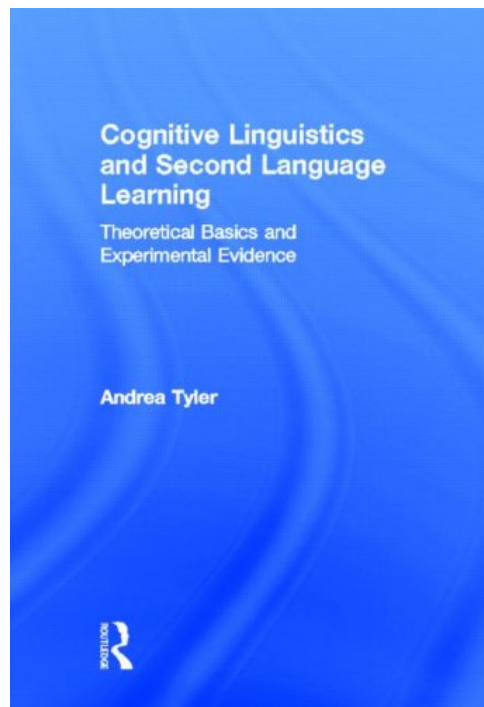


JoLLE@UGA[®]
JOURNAL OF LANGUAGE & LITERACY EDUCATION

Review of Cognitive Linguistics and Second Language Learning: Theoretical Basics and Experimental Evidence

Reviewer Heesun Chang
The University of Georgia, Athens, GA



Tyler, A. (2012). *Cognitive linguistics and second language learning: Theoretical basics and experimental evidence*. New York: Routledge.

ISBN: 978-0-41580-250-5

Pages: 252

Andrea Tyler's book, *Cognitive Linguistics and Second Language Learning*, provides a clear introduction to theoretical basics of cognitive linguistics (CL) and the pedagogical application of CL to second language (L2) education. The book reflects the author's endeavor to bridge CL with L2 learning, presenting experimental evidence of the effectiveness of CL in English language instruction, and is partitioned into two parts. Part 1, the first two chapters, comprising of the introduction of the foundations of CL tuned toward second language learning and teaching, entitled "The Basics of Cognitive Linguistics," is followed by Part 2, "Applying Cognitive Linguistics." The second half of this text consists of Chapters 3 to 7, with Chapters 3, 4, 5, and 6 discussing the application of CL to L2 learning and its pedagogical effectiveness, and Chapter 7 fomenting future directions of CL application and research.

Chapter 1 provides an overview of the significance of the CL approach to language in contrast to traditional approaches. Tyler critiques the traditional view of language, which sees language as merely a set of rules that are context independent and are isolated from a cognitive process and conceptual system; from a traditional perspective, language involves many rules that are largely arbitrary and idiosyncratic. When it comes to language education, form is emphasized more so than underlying conceptual meaning, whereby learners need to rely heavily on memorizing many rules of exception. In contrast, a CL approach views language in a radically different way. It sees language as reflection of embodied meaning, which derives from our cognitive processes and our physical and socio-cultural interactions with the world. From a CL perspective, there are indispensable connections between the structure of language and the socio-physical environment in which we live, and the form of language is not constructed isolated from meaning. Briefly outlining a CL perspective on issues of L2 education, the author emphasizes the benefits and necessities of CL paradigms in L2 education.

Chapter 2 expands on the theoretical foundations of CL relevant to the discussion and analysis of language structures dealt with in the rest of the book. Tyler begins with emphasizing the central place of meaning in a CL approach to language, introducing the concept of embodied meaning which arises from the ways we interact with the

environment. According to this approach, being usage-based, language is always context dependent and thus a speaker's choice of particular linguistic form is largely determined by the context and the speaker's perception or conceptualization. For instance, the seemingly synonymous sentences "Jerry is sending George a sweater" and "Jerry is sending a sweater to George," in fact connote different perceptions of the same reality, with the emphasis on "George" in the former and on "sweater" in the latter.

Next, the author elaborates on the relationship between human language and cognition, introducing important CL tenets such as embodiment, metaphors, and categorization. Drawing on several examples, the chapter elaborates how language manifests our cognition and perceptual system which have been formed through our bodily experience. Aspects of first language learning are discussed from a CL perspective, followed by the discussion of the application of CL to L2 learning.

Chapter 3 reviews several studies that describe how the five CL tenets introduced in Chapter 2 – *construal, metaphor, categorization, embodiment, and the usage-based nature of language* – benefit and influence second language learning. Each tenet is briefly explicated again, followed by a number of studies illustrating each tenet. The studies suggest that the CL tenets provide a better account for many aspects of the target language and its patterns, and therefore allow L2 learners a deeper understanding of the language structures. Then, Tyler provides several studies on cross-linguistic influences and ends the chapter with discussing how a different conceptual system of L1 influences or interferes with L2 learning, and how CL can offer deeper insights into research on cross-linguistic influence.

In Chapters 4 to 6, Tyler focuses on the application of CL to three areas of English language learning, which have been recognized as some of the biggest challenges that English language learners face – *modals, prepositions, and sentence structure*. Each chapter involves CL-based linguistic analysis of modals, prepositions, and sentence structure respectively, followed by experimental evidence indicating the effectiveness of applied CL on these three notorious areas in L2 education.

The focus of Chapter 4 is on English modals. Pointing out the difficulty of their mastery, Tyler contrasts the CL-based account and traditional accounts of modal verbs (e.g., *can*, *could*, *will*, *shall*, and *might*). One reason for the difficulty mastering modals is that the precise definitions which capture the nuances of delicate modal meaning have been absent. Moreover, it is noted that almost every English modal possesses two basic meanings: one related to the socio-physical world of ability, obligation, or permission (e.g. The doctor said I *should* get more sleep), and the other related to a speaker's mental reasoning and logical prediction (e.g. [Doorbell rings] Speaker: That *should* be Catherine now). Unfortunately, the traditional account fails to address or explain any systemic relationships between the two basic meanings. On the other hand, the CL alternative, based on the notions of force dynamics and metaphorical extension, offers not only precise definitions for the individual modals, but also a systematic explanation of how the two meanings are related. This systemic explication will prevent learners from simply memorizing superficial meanings and linguistic forms of modals; instead it will offer a conceptual understanding of modals, which will consequently help L2 learners make productive use of modals. Lastly, Tyler introduces three experiments that delve into the effectiveness of the CL approach to modals in L2 learning, studies concluding that those participants who received CL-based instruction significantly outperformed the control group by improving their understanding and use of modals.

Chapter 5 addresses English prepositions. Tyler starts with briefly elucidating the reasons learning prepositions is challenging. The first reason is that it is hard to characterize the semantics of prepositions, and the second is that one preposition has diverse extended meanings which may seem largely arbitrary. It is criticized that traditional linguists tend to present diverse senses associated with a preposition as idiosyncratic, suggesting memorization of every individual idiosyncratic sense as a pedagogical treatment for prepositions. In contrast, CL has a polysemy approach, which argues that those seemingly-idiosyncratic senses are in fact not idiosyncratic but are closely related to each other in systematic and motivated ways.

For example, the preposition *to* in the sentence "Sofie worked *to* the limits of her abilities" and *to* in "Harry ran *to* home base" are not independent separate words; instead, the two uses are in fact closely related to each other in a motivated way. The author notes that diverse figurative senses extends from the central spatial meaning of a preposition, based on the general cognitive principles, such as real-world force dynamics, different construals, and metaphorical thinking and experiential correlation. Next, she shows polysemy networks of the semantics of the three prepositions *to*, *for*, and *at*, detailing how each figurative sense extends from a central sense in a motivated way. The systemic account of seemingly-arbitrary senses of a preposition will significantly help L2 learners internalize its conceptual meanings and how those diverse meanings are polysemously connected, without having to memorize every individual meaning (or use) of it. This is confirmed through two complementary research studies that test the utility of CL-based instruction of the three prepositions. The results indicate that participants receiving CL-based instruction significantly improved their ability to accurately understand the meanings of the targeted prepositions.

The topic of Chapter 6 is sentence structure with a focus on dative alternation. Similar to the two previous chapters, Tyler begins with discussing the difficulty of mastering the relationship between verbs and the sentence structures in which they are realized. Different patterns of verbal argument structures make it more difficult for learners to learn sentence structures: some verbs are followed by one noun (e.g. *kick* or *eat*), some by two nouns (e.g. *give* or *send*), and some verbs are followed by none (e.g. *occur* or *sneeze*). Moreover, some verbs can be used in two patterns of argumentative structure.

For example, consider the two sentences "John *gave* a plate to Edie" and "John *gave* Edie a plate." Traditional account of these two syntax forms is that they are synonymous, and that the pattern "V NP to NP" is the basic pattern. In contrast, a CL account has a different perspective toward this phenomenon, arguing that the structure of the sentence itself is meaningful by embodying different construals on reality. That is, they are not synonymous because they in fact differ pragmatically and conceptually. It is argued that a CL approach can provide a systematic and deeper

explanation of the difference embedded in the two syntactic constructions. The pedagogical implication is that instead of understanding “V NP₁ to NP₂” and “V NP₂ NP₁” as synonymous, learners need to accurately conceive that they actually represent two different perceptions; they are not the same. In this way, learners will be able to make productive use of different sentence structures correctly with the “true” understanding of the linguistic structures with regard to the meanings manifested in them; learners are not merely memorizing alternative forms of the same thing. Two research studies are introduced as evidence of the efficacy of CL approach in L2 education. The results from both studies indicate that participants receiving CL-based instruction performed much better on both comprehension and production tasks.

The last chapter offers a brief summary of the main points discussed in the book. In this chapter, Tyler reemphasizes the CL’s key tenet, embodied meaning, and its implications for effective L2 instruction. The author points out that a CL approach offers a different paradigm of conceptualizing the nature of language from more traditional understandings which fail to account for the conceptual meanings behind its form. The chapter also introduces an additional tenet of CL as an additional remark on research and application, and the book ends with suggesting the importance of having an appropriate understanding of language in context of L2 pedagogy and research.

In this book, Tyler introduces fundamental tenets of CL and bridges them to L2 education. I believe this book would provide new insight for both L2 teachers and learners who have dealt with language as a set of rules that simply need to be memorized; CL offers a new paradigm for understanding and learning a language. The author’s illustration of claims is supported by diverse examples and previous studies, which make her points less abstruse. Particularly, it is beneficial that the application section deals with the grammatical elements that L2 learners typically find challenging. She also suggests future directions for CL research and pedagogy, which I think will be helpful for potential CL researchers.

Nonetheless, there are a few areas of need. The polysemy network models of the prepositions *to*, *for* and *at* in Chapter 5, seem to be insufficiently

thorough because I believe there are other senses that the models fails to explain clearly. For example, *to* in the sentence “She jumped *to* her feet” does not seem to fit any of the senses in her model. Moreover, her analysis of the figurative meaning extensions might not be equally effective for every ESL learner. From a Korean-L1 perspective, for instance, the “attachment” sense (e.g. Danny nailed the board *to* the fence) in the polysemy model of *to* may be closer to the central sense than the “limit” sense (e.g. Sofie worked *to* the limits of her abilities). Therefore, sticking to her model in L2 education might result in forcing learners to follow a particular way of thinking when there is a more convincing way of conceptualizing the polysemy network with regard to their L1 background.

In addition, I think it is important to note the long-term effects of CL-based pedagogy. Is the effect fleeting or permanent? Another issue I found is that most examples are based on the English language, so the value of CL on other L2 learning seems to require more empirical studies with other languages, and in this regard its inherent efficacy still remains questionable. It is possible that the pedagogical effectiveness of CL may not be equally effective with different languages. Lastly, there are many other linguistic aspects for L2 learners to learn, like for example, the accurate use of English articles or plural/singular forms. It might have been better if the book had addressed a broader range of the application of CL to L2 pedagogy.

Despite a few limitations, overall the book is a good resource for people in the field of second language acquisition and education. It clearly demonstrates the fundamental connection between linguistic structures and underlying meanings, which is argued to be inseparable. Although it includes some technical terms, the concepts are illustrated in accessible language. The book is academic but does not require an advanced linguistics background to read; nonetheless, one or two courses in linguistics would be helpful in better understanding the content in that it offers contrasts between the traditional approach of understanding language and acquisition, and the CL approach. I believe this work can be utilized as a textbook in both undergraduate and graduate courses, such as *second language learning and language and cognition*.

