form of manuals for three Web-based programs that Meara has created to facilitate the collection and analysis of word association data, including the Lex30 program. The programs can be accessed, along with numerous other tests and research tools, on the author's Web site (www.lognostics.co.uk).

Thus, in a number of respects, this volume is more a research handbook than a monograph or anthology of papers. Apart from the features just noted, Meara discusses throughout the book the methodological challenges he has faced in pursuing his goal of going beyond superficial concepts like a web of words or depth of vocabulary knowledge to achieve a more sophisticated understanding of the L2 lexicon through hard-core psycholinguistic research methods and computer modeling. He is quite open about the problems that persist and the fact that progress on his research agenda has been incremental rather than dramatic in nature. There is a risk here that his frankness may deter more than encourage the novice researchers he would like to attract to this area of study. However, for those who respond to the challenge, whether novices or not, the book provides a range of useful resources to direct their efforts and, at the very least, to help them formulate the right research questions. Who knows? Vocabulary research of this kind may yet find its place within mainstream SLA.

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**IMPLICIT AND EXPLICIT KNOWLEDGE IN SECOND LANGUAGE LEARNING, TESTING AND TEACHING.** *Rod Ellis, Shawn Loewen, Catherine Elder, Rosemary Erlam, Jenefer Philp, and Hayo Reinders.* Clevedon, UK: Multilingual Matters, 2009. Pp. v + 391.

This important volume reports the results of a research project that focused on the role of implicit and explicit knowledge in second language (L2) acquisition, testing, and teaching. The project was financed by the Marsden fund (Royal Society of New Zealand) and took place over a 3-year period (2002–2005). There were three main goals: (a) to develop tests that measure implicit and explicit L2 knowledge, (b) to identify the relative contributions of these types of knowledge to language proficiency, and (c) to investigate how form-focused instruction affects the acquisition of implicit and explicit knowledge of L2 grammar. The linguistic focus was on a wide range of English grammatical structures, but the methodology and insights described in the volume are applicable to the investigation of other aspects of language.

The volume is divided into five parts. Part 1 consists of an introductory chapter (Ellis), which discusses three key distinctions—namely implicit-explicit learning, implicit-explicit knowledge, and implicit-explicit instruction. Part 2 consists of four chapters that describe studies designed to develop measures of implicit and explicit L2 knowledge. Chapter 2 (Ellis) reports research that validated tests of implicit knowledge (elicited oral imitation, oral narrative, timed grammaticality judgments) and tests of explicit knowledge (untimed grammaticality judgments, metalinguistic knowledge). The subsequent chapters focus on studies that examined in detail different components of the battery of tests. Chapter 3 (Erlam) focuses on the elicited oral imitation test, chapter 4 (Loewen) focuses on the timed and untimed grammaticality judgment tasks, and chapter 5 (Elder) focuses on the metalinguistic knowledge test.

Part 3 contains four chapters that apply the measures of implicit and explicit knowledge to address several questions. Chapter 6 (Ellis) investigates whether learning difficulty of several grammatical structures differs for implicit and explicit knowledge. Chapter 7 (Elder & Ellis) examines the relationship between implicit-explicit knowledge and L2 proficiency. Chapter 8 (Philp) explores to what extent L2 learners' implicit and explicit knowledge differs according to learning experiences, and chapter 9 (Erlam, Philp, & Elder) investigates the explicit knowledge of trainee English as a second-language teacher. The four chapters in part 4 examine the effects of instruction on the development of implicit and explicit L2 knowledge. Chapter 10 (Erlam, Loewen, & Philp) compares the effects of input- and output-based approaches to instruction, whereas chapter 11 (Loewen, Erlam, & Ellis) examines the effect of incidental exposure. Chapter 12 (Reinders & Ellis) focuses on the effects of two types of input, whereas chapter 13 (Ellis, Loewen, & Erlam) looks at implicit and explicit corrective feedback. Part 5 consists of a concluding chapter (Ellis), which discusses achievements, limitations, and future directions.

One of the main strengths of the volume is its emphasis on research methodology. Ellis and collaborators went to great lengths to design relatively independent measures of implicit and explicit knowledge and to empirically validate these measures. This allowed the authors to make progress on long-debated questions such as the interface issue. Ellis et al.'s efforts also enable other researchers to use their tests and tackle open questions. Another important aspect is that the book raises awareness of the complex relationship among implicit-explicit learning, knowledge, and instruction. The assumptions that implicit learning conditions necessarily result in implicit knowledge or that explicit instruction only promotes the development of explicit knowledge are simplistic. The relationship between these constructs is not as straightforward as the shared terminology might suggest, and the studies in this volume make this clear. Perhaps one minor weakness is that the volume could have engaged more with the very extensive psychological literature on implicit and explicit learning. Recent work on central questions (e.g., how to measure awareness and how implicit knowledge is represented) could have been covered in more detail.

The volume is clearly written and makes an important contribution to the existing literature. The book is partially based on previously published papers and contains several unpublished studies and two theoretical chapters specifically written for this book. It will be of great value not only to scholars interested in the topic of implicit and explicit language learning but also to graduate students and researchers working on different aspects of SLA.

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