Rebuschat, P. (Ed.). (2015). *Implicit and explicit learning of languages* (489 pp.). Amsterdam, Netherlands/Philadelphia, PA: John Benjamins.

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Those interested in how human beings learn can look back on a long tradition of research. In the late 1960s, Reber conducted several experiments with artificial grammars to address the question of how people acquire complex knowledge without the intention do so. As a result of this research, Reber (1967) coined the term *implicit learning*. Ever since, research has expanded from the field of cognitive psychology to many more, such as "linguistics, education, developmental psychology, and computer science" (Rebuschat, 2015, p. XVII). The implications stemming from research on implicit versus explicit learning have been as manifold as the approaches; this is especially true for the field of second language acquisition. Many studies have explored the implicit/explicit dichotomy in terms of knowledge types (see R. Ellis et al., 2009, for an overview), as well as instruction (see Norris & Ortega, 2000, for a meta-analysis and Goo et al. in Rebuschat, 2015, for an updated overview). While many definitions of *implicit learning*, explicit learning, knowledge, and instruction exist, DeGraaf and Housen (2006) have raised concerns because these terms "have come to mean different things for different researchers" (p. 732). This inconsistency can be partly attributed to the numerous disciplines that have shown interest in these processes. Consequently, in order to achieve a comprehensive understanding of these terms, it is necessary to include research from the various disciplines that are involved in their study.

In *Implicit and Explicit Learning of Languages*, Rebuschat does exactly this by bringing together findings from researchers of the above mentioned fields "who share a mutual interest in implicit and explicit learning but whose paths would normally not cross" (Rebuschat, 2015, p. XVI). The information about each author, retrievable through the list of contributors, reflects this undertaking. Contributors do not only come from different academic departments such as Psychology, (Applied) Linguistics, Cognition and Neurosciences, Romance and Classical Studies, Second Language Acquisition, and even Business, but they are also active in different research settings across Europe, North America, Australia, and Asia. Rebuschat considers this 2015 volume to be a "follow-up" (p. XVI) to N. C. Ellis's 1994 volume of the same title, published by Academic Press in London.

Rebuschat chooses to open his volume with a Foreword by Reber, before offering an Introduction that outlines the history of research on implicit and explicit (language) learning; this history begins with Reber's 1960s research, as described in the opening paragraph of this review. The Introduction alone is a valuable read that helps the reader understand the development of research on the subject matter, including the different interests and questions driving the research. In addition, Rebuschat (2015) summarizes the major streams of research as revolving around three questions, namely, (a) "the role of awareness in language acquisition and the possibility of learning without awareness," (b) "the measurement of awareness," and (c) "the implicit-explicit interface" (p. XVI). These questions are addressed in the three main sections of the volume: Theoretical Perspectives, Methodology, and Practical Applications: The Case of Instructed SLA. With 10 contributions, the Theoretical Perspectives section substantially outweighs the other two, which comprise five and three articles respectively. In his Introduction, the editor describes each section's focus in detail and offers a short summary of each contribution. Some topics in the Theoretical Perspectives section include: (implicit) statistical learning (Weiss et al.; Walk & Conway); usage-based perspectives (Roehr-Brackin); generative theory (Van Patten & Rothman);

as well as a comparative approach to first and second language acquisition (Hulstijn). The Methodology section dedicates two articles to artificial grammar/language learning (Ziori & Pothos; Rogers et al.). It also covers the effects of conditions (Sanz & Grey) and the use of eyemovement data (Godfroid & Winke). In addition, it includes a theoretical article on event-related research (Morgan-Short et al.). The last section, Practical Applications: The Case of Instructed SLA, should not be misunderstood as a section on suggestions for how this research can be applied. Rather, it includes three articles describing research that empirically tested the effectiveness of an individual treatment (Kachinske et al.), synthesized research on implicit/explicit instruction (Goo et al.), or provided a theoretical approach to the relevance of validity in test design (R. Ellis et al.). As even this short review demonstrates, the text types in Rubuschat are located on a spectrum from theoretical to empirical, including reviews and syntheses of research.

While the division of the volume into these three categories is useful in navigating it, the categorical line between each article is often a thin one. Therefore, Rebuschat's sections are appropriate but alternative ones are conceivable as well. In order to increase reader friendliness even more, it would have been useful if the editor had provided a short introduction for each of the three sections—especially for those readers who are interested in individual sections.

Overall, this volume offers a comprehensive and thereby unique approach to the concepts of explicit and implicit learning. While it can serve as a reference book to those who are interested in a particular topic or approach, both the set up and the accessibility of the contributions lend themselves to a coherent read that would result in a multifaceted understanding of the concepts. The volume targets a broad readership: from those with an interest in theoretical and empirical research, to students and teachers, to language learners with an interest in theory—on a spectrum from novice to expert.

References

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