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REVIEW ARTICLE

Developments in Research on Multilingualism and Cognition

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LANGUAGE AND BILINGUAL COGNITION. *Vivian Cook & Benedetta Bassetti (Eds.)*. New York: Psychology Press, 2011. Pp. xiii + 591.

LANGUAGE AND COGNITION IN BILINGUALS AND MULTILINGUALS: AN INTRODUCTION. *Annette M.B. de Groot*. New York: Psychology Press, 2011. Pp. xiii + 514.

THINKING AND SPEAKING IN TWO LANGUAGES. *Aneta Pavlenko (Ed.)*. Bristol, UK: Multilingual Matters, 2011. Pp. ix + 267.

The fact that these three volumes, all published in 2011, are on cognition and bilingualism is an indicator of the importance of current research in this area. The study of the relationship between language and cognition has been of interest in several disciplines, including psycholinguistics, cognitive psychology, developmental psychology, linguistics, philosophy, and anthropology. Bilingualism and multilingualism are widely spread throughout the world, and, thus, research involving two or more languages is particularly relevant because it affects a large number of individuals. Furthermore, some processes observed in the study of bilingual cognition can contribute to our understanding of the relationship between language and cognition in general. There have been a number of important research studies on bi- or multilingualism and cognition in recent years, and these volumes report the main findings and explore new domains and methodologies. The first part of this review summarizes the content of the three volumes and is followed by a discussion of their strengths and weaknesses.

The Cook and Bassetti and the Pavlenko texts are edited volumes; de Groot is a monograph. Cook and Bassetti is quite long, with almost 600 pages, 25 contributions, and an epilogue. Pavlenko is a shorter volume that includes eight chapters on the relationship between bilingualism and thought. The first chapter

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summarizes the study of the relationship between bilingualism and thought in the 20th century, the next six chapters report research studies, and the last chapter synthesizes and discusses the findings. De Groot's monograph of just more than 500 pages is identified as a textbook. The volume contains a preface, eight chapters, a glossary of technical terms, references, and author and subject indexes.

All of the three volumes reviewed here deal with bilingualism and cognition but are different in their scope. De Groot's monograph provides a detailed overview of research on bilingualism in psycholinguistics. This volume brings together psycholinguistic processes of language acquisition, comprehension, and production by reporting on the main research methods, theories, and findings in acquisition, comprehension, production, and language control, and by discussing the cognitive implications in bilingual processing. The other two volumes also look at bilingual cognition but take the work of Sapir (1949) and Whorf (1956) as the point of departure to explore the relationship between bilingualism and thought and how bilingualism can influence conceptual restructuring. This area of research can also be found in de Groot's volume but as a section of one of the chapters. In fact, in Chapter 7, de Groot explains the strong and weak versions of relativity theory and reports studies on grammatical gender, grammatical number, and grammatical tense. She considers the possibility of bilingualism affecting conceptual representations in some conceptual domains but highlights the need to control for cultural differences as well. The two edited volumes discuss and expand some of the ideas originally put forward by Sapir (1949) and Whorf (1956) and explain how these ideas have often been distorted, assuming that language determines thought. Cook and Bassetti's and Pavlenko's volumes aim at a more specialized readership working on the relationship between language and thought, whereas de Groot's volume is aimed at students and researchers but also at teachers and interpreters, even though it "presupposes some basic knowledge of the research area of cognitive psychology and, specifically, the psychology of language (or 'psycholinguistics')" (p. 1).

As can be expected, the de Groot and the Cook and Bassetti volumes, which are much longer than Pavlenko's, are also more comprehensive. De Groot provides a detailed overview of themes such as early bilingualism and the age factor, foreign vocabulary learning, bilingual and trilingual lexical access, models of speech production, and the cognitive consequences of bilingualism and multilingualism. Fifteen chapters in the central part of Cook and Bassetti present its main focus on the relationship between bilingualism and cognition, but the volume also includes six background chapters on language and cognition and four chapters that apply the relationship between bilingualism and cognition to language teaching, translation, intercultural communication, and advertising. Pavlenko's volume is shorter and focuses on conceptual development and restructuring in the bilingual mind. This volume provides evidence for conceptual restructuring and challenges some bilingual lexicon models (Costa, 2005; de Bot, 2004) that propose that in the bilingual lexicon undifferentiated concepts are linked to words in both languages. As Pavlenko explains in Chapter 7, word-to-referent mapping processes are more likely to be language specific.

Because it is a monograph, de Groot's volume is very consistent in both content and style. Most chapters have a similar structure, starting with a section called "Introduction and Preview," followed by a section on research methodology

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called "Methods and Tasks." For the two edited volumes, internal consistency is more of a challenge. Pavlenko achieves consistency because of the specific focus of the volume, its limited length, the high quality of the eight chapters, and the fact that the editor is the author of three of these chapters. Achieving internal consistency is a more difficult task for Cook and Bassetti. This volume is very long and contains 25 contributions written by different authors on different topics. It is a broader and more ambitious project than Pavlenko's volume, and, notwithstanding its overall excellent quality, the contributions are not always evenly balanced in terms of quality and style. Cook and Bassetti's section on bilingual cognition is preceded and followed by chapters that are not on bilingual cognition (the sections entitled "Language and Cognition" and "Applications and Implications of Bilingual Cognition Research"). The volume combines state-of-the-art chapters on different topics and chapters that report research studies. Some chapters are more related to the main theme of the volume than others, as is usually the case in edited volumes.

Most contributors in the two edited books are based in Europe and the United States, and most of the research studies reported in these volumes involve university students who speak at least two languages. Bilingual subjects generally speak English in combination with other languages, such as Greek, Spanish, German, Polish, Italian, Arabic, or Chinese. There is only one scholar, Panos Athanasopoulos, who contributes both to Cook and Bassetti and to Pavlenko.

The processing of the lexical and semantic aspects of language receives more attention in the three volumes than the processing of other linguistic areas. Some aspects of pragmatics and grammar are also discussed in detail in some of the chapters. Many other domains, such as phonetics, gesturing, motion, and emotion, are covered in these volumes.

The three volumes reviewed here have very strong points. De Groot is not only *a* textbook but also *the* textbook on bilingualism and cognition because, unlike any other volume, it provides a comprehensive account of research in the field, and it is written in a reader-friendly way that will appeal to researchers, students, or anybody interested in getting to know more about bilingual cognition in general. Students should find the section on methods and tasks in each of the chapters, as well as the summaries at the end of the chapters and the glossary at the end of the book, extremely useful. The volume pays more attention to the lexicon than to other areas, but this reflects the expertise of the author and the important development of this domain in bilingual studies. The chapter on bilingualism and the brain (Chapter 8) is also very welcome, even if the findings are only tentative. In this volume, de Groot offers a comprehensive and critical account of theoretical and methodological issues in a wide range of research, and she does so by discussing the advantages and disadvantages of alternative positions. It is a comprehensive volume that provides rigorous information about the main aspects of bilingual and multilingual processing.

One of the strengths of Cook and Bassetti's volume is that it adopts a multidisciplinary approach that includes contributions from different areas related to language and cognition in general and bilingual cognition in particular. The design of the volume as three parts starting with language and cognition and zooming in to bilingual cognition and then on to applications is very appropriate in that it provides a complete picture of research on the relationship between language in monolinguals and in bilinguals. The first chapters of Part A

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and Part B, which are written by one or both editors, provide state-of-the-art information about the research questions and findings in each area and are useful as a guide for the rest of the chapters. The collection of chapters reporting studies on bilingual cognition is quite impressive, even if some of them are not clearly linked to the rest (e.g., Chapter 19 on theory of mind, Chapter 25 on advertising, or the epilogue), and some of the chapters have been written by leading scholars on language and cognition and bilingualism.

Pavlenko's volume is clearly framed by the introduction and the discussion chapters (Chapters 1 and 8), which provide a historical context and a summary of the processes identified in bilingual cognition research. The final chapter gives a clear overview of the findings on thinking and speaking in two languages, and it is highly appreciated that this overview also covers areas that are not reported in the book chapters because this provides a general picture of research in the field and makes it clear that only part of the research is covered in this volume. The quality of the research studies reported in this volume is excellent, although two of the six chapters that report research studies are on event conceptualization, and perhaps it might have been a good idea to include a different cognitive domain as well.

These three volumes are excellent contributions to the development of research on bilingualism and cognition. The studies reported in these volumes indicate that bilingualism is a complex phenomenon but that its interaction with cognition can provide fruitful insights about conceptualization in bilingual and multilingual individuals. These findings, as well as those that report on the lexicon in de Groot's volume, open new perspectives for future research. These volumes clearly show that bilingual and multilingual speakers can be the center of research in language cognition.

However, there are still a number of issues that need further attention. One of these issues is the preference for the use of the terms *bilingualism* and *bilingual* rather than *multilingualism* and *multilingual*. De Groot's volume includes both *bilingualism* and *multilingualism* in the title of the volume and in the title of Chapter 7, "The Cognitive Consequences of Bilingualism and Multilingualism." De Groot (pp. 1–2) explains that she uses both terms because she includes some studies with more than two languages and also because the theories, processes, and mechanisms apply to bilingualism and multilingualism. The terms *bilingualism* and *bilingual* are used extensively by de Groot compared to the lesser use of *multilingualism* and *multilingual*. This use of terminology is also the case in the other two volumes. In fact, the research studies reported in the three volumes follow the tradition of selecting two of the languages the individual speaks without taking into account if more languages are present in the individual's linguistic repertoire. In the context in which only two languages are considered, it seems to be enough to use the terms *bilingualism* and *bilingual*. However, such terminology may not accurately represent the linguistic situation in much of our increasingly globalized world. In today's world, many individuals have contact with more than two languages because of international communications and the increased mobility of the population. This increased contact with multiple languages makes it necessary to pay more attention to the whole linguistic repertoire rather than to a specific set of languages and to replace the term *bilingualism* with the term *multilingualism*, which can be used as an umbrella term to include two or more languages.

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Another issue is related to language competence and the idea that bilingual speakers' conceptualization is different from that of monolingual speakers. Cook (1992) already considered this difference when he proposed the term *multicompetence* as a complex type of competence that is qualitatively different from the competence of monolingual speakers of a language. An implication of this view is that bilinguals should not be compared to native speakers of specific languages because they are different from them. Although the idea of multicompetence has been around for some years and all three volumes discuss multicompetence, the reference to the native speaker is pervasive and seems to take precedence. In fact, most studies reported in these volumes take the monolingual rather than the bilingual speaker (or second language user) as a reference.

Another area that deserves more attention is related to language use. Pavlenko sees the need to contextualize research tasks so as to look at "the things we do with words in the real world" (p. 199). Recent work on multilingual communication conceives the hybridity of speech among multilinguals not as the mixing of languages or codes but as the use of a series of language features and resources that speakers have at their disposal (García, 2009; Makoni & Pennycook, 2007). This view goes against the conception of languages as linguistic codes and does not consider that a bilingual speaker knows two different codes; it is obviously controversial. However, if the aim is to conduct research on bilingual cognition that is closer to the "real world," researchers will have to face the challenge of designing experiments that take this view into account in the near future.

These three volumes explore an emergent area of research by using a wide variety of theoretical approaches and methodologies and by focusing on different domains and language combinations. The three volumes are outstanding contributions to research on bi- and multilingualism and second language acquisition, and they will certainly be invaluable references for scholars and students interested in bilingual cognition and, at the same time, will stimulate new research directions. A necessary step is to examine multilingualism and thought by giving a sharper focus to hybridity, the interaction of different languages, and the specific characteristics of multilingual speakers and their repertoires.

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