

## Book Review

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Bialystok, Ellen (2001). *Bilingualism in Development: Language, Literacy, and Cognition*. New York: Cambridge University Press.

The topic of bilingualism has aroused considerable interest in language acquisition research in recent decades. Linguists, psychologists, and sociologists have investigated bilingual populations from different perspectives in order to understand how bilingualism affects cognitive abilities like memory, perception, and metalinguistic awareness. In line with the general upsurge in linguistically related studies of bilingual children, Ellen Bialystok, in her new book “Bilingualism in Development: Language, Literacy, and Cognition,” explores language and cognitive development in bilingual children, primarily focusing on the preschool years.

Bialystok begins the book (chapter one, “Faces of Bilingualism”) with definitions of bilingualism or standards for considering children to be bilingual, from the simple (though unrealistic) assertion of someone who “has full fluency in two languages” to the more pragmatic and realistic definition of “someone who can function in each language according to given needs” (p. 4). The book, consisting of eight chapters, addresses a range of issues, including various theoretical positions on first-language acquisition that lead to differing conjectures about the processes involved in second-language acquisition, the critical period hypothesis, mental representations for language and concepts, metalinguistic ability (i.e., the ability to analyze or describe language forms), the continuum between oral language skills and literacy, cognition and intelligence (e.g., problem-solving skills in bilingual children), sociocultural issues such as social conditions and educational expectations in bilingual children’s homes, and bilingual education. As her topics reveal, the author develops her discussion by examining cases of children of various sociocultural backgrounds learning two languages early in childhood and developing both linguistic and nonlinguistic cognitive skills.

In chapter two (“Starting With One Language”), Bialystok presents a summary of theories on first-language acquisition, linking different linguistic elements such as lexicon, phonological, morphological, and syntactical systems, and pragmatics. Ever since Chomsky (1965) began to develop the theory of linguistic universals, researchers have been interested in the human biological endowment that enables us to discover the framework of principles and elements common to attainable human languages. Formal theories of language developed by these researchers are concerned with an analysis of the abstract underlying structure of language. Those who propose different paradigms for understanding language acquisition, however, insist that environmental influence on language development not be overlooked. More specifically, while the formal Chomskyan (nativist) approaches take the position that language is relatively independent of other cognitive domains, the functional (empiricist) approaches claim rather that the interplay between domain-general cognitive/learning mechanisms and the environment accounts for language development. Functional theories are particularly concerned with understanding language in the contexts in which it is used (e.g., learning socially determined rules of interaction in the process of language acquisition). In other words, whereas formal theories primarily place their emphasis on analyzing the child’s developing linguistic competence in syntax and phonology, functional theories are essentially concerned with semantics and pragmatics. Toward the end of the chapter, Bialystok states: “In studies of second-language acquisition, the predominant view is the (formal) generative approach, even though the most interesting implications for second-language acquisition and bilingualism come from the functionalist perspectives” (p. 54). Bialystok takes the functionalist position, while acknowledging that both approaches to the study of language acquisition co-exist in language studies.

In chapter three (“And Adding Another”), Bialystok further extends her theoretical discussion of first-language acquisition to the area of second-language acquisition. This transition is not surprising. The author follows the conventional question of whether the examination of the theories developed in the area of first-language acquisition are applicable to phenomena observed in second-language acquisition. Again, while not entirely ignoring the Chomskyan (or linguistically based) formalist paradigm of the nature of language acquisition, the author formulates her ideas opting for the functionalist position of language acquisition. The author’s inclination is particularly evident when she re-examines the long-debated issue of the critical period hypothesis, the theory claiming that there is a period in child development during which language can be acquired more easily than at any other time. (I assume that no professional denies that young children are superior to adults at successful acquisition in such linguistic domains as phonology, morphology, and syntax.) As can easily be inferred from the fact

that the critical period hypothesis is often associated with Lenneberg (1967), who worked with Chomsky, the effect of a critical period on age-related differences in the ability to master a second language has been argued by those who support formalist theories. This is partly because the child's language environment does not provide the variety needed for producing all kinds of sentences. Referring to what Newport called the "less is more" hypothesis (i.e., compared to older learners' analytic approaches to a second language, young children's more passive approach would be more successful), Bialystok argues that cognitive change should be regarded as the crucial element in an individual's declining ability to acquire language. In this way, Bialystok once again emphasizes her view that domain-general cognitive mechanisms, such as working memory and the individual's interaction with the environment, play an especially important role in language acquisition.

Bialystok also discusses research designs and methodology in chapter three. The author cautions: "Research comparing bilinguals to monolinguals necessarily uses between-subjects designs. Such research always requires extra precaution in assuring that the variable of interest is the only relevant difference between the subjects in the two groups" (p. 63). As a matter of fact, the dominant research design, in practice, is based on comparisons of each of the bilingual's languages to a monolingual cohort. For instance, when comparisons are made between two groups of participants (e.g., a group of English-Spanish bilingual children and another group of English-speaking children), the constituent members of each group are, of course, different individuals. In this research design, even if differences are identified between two groups, those differences might be attributable to the specific constituency of each group. Despite Bialystok's warning, I believe that there are still advantages to involving bilinguals in research, although the research design must be modified. For example, by adopting a design in which a comparison of the development of each language in a bilingual individual is made, potential deviances due to differing constituencies—which might confound the results—can be eliminated. While in such designs there remains the potential problem of equivalence between the compared languages (the subjects need to be balanced bilinguals), using bilinguals as subjects has considerable methodological advantages over a design in which a comparison of the development of the two languages in monolingual groups is made.

In chapters four ("Language in the Mind") and five ("Thinking About Language"), Bialystok further addresses the intellectual development of bilingual children; these chapters, in one way or another, further relate to chapter seven ("Beyond Language") and chapter eight ("The Extent of the Bilingual Mind"), the latter of which deals with sociocultural problems surrounding bilingual children. For instance, the existing research findings on the advantage of being bilingual (and consequently, the effectiveness of bilingual education) are somewhat inconsistent; some report positive effects,

some report negative effects, and still others report no effect. One may recall Baker and de Kanter's (1983) evaluation studies in the early 1980s that generally concluded that bilingual programs were no more effective in promoting the English language and other skills than alternative programs and, in contrast, Willig's (1985) study that presented evidence supporting the effectiveness of bilingual education programs. The general consensus, however, is that bilingual children, as they grow, face much more language challenges than monolingual children. It has been shown that bilingual children often demonstrate below-normal vocabulary scores in each language. This tendency would derive from the fact that bilinguals are learning almost twice as many words in the same time frame as a monolingual (Snow, 1998). More than sixty years ago, Smith (1939) arrived at the conclusion that bilingualism caused retardation and that second-language learning in childhood is arduous, handicapping, and fraught with problems. Smith, however, counted as "errors" those occasions when bilingual children chose to mix vocabulary from two languages. As Bialystok argues in chapter four, while lexical mixing is a good indicator of language differentiation and shows the representation of two languages in the bilingual mind, it belongs to the relatively trivial aspects of language use.

In contrast to the supposed language handicap described by Smith and other early researchers, the studies conducted by Peal and Lambert (1962) refuted the pessimistic view of bilingualism and instead showed bilinguals to be intellectually normal and, especially in the domain of "mental/cognitive flexibility," superior to monolinguals. As Bialystok reports in chapter five, "One of the first research areas that claimed consistent advantages for bilingual children over their monolingual peers was the domain of metalinguistic awareness" (p. 134). As the author further reports in chapter seven, the conclusion reached in Peal and Lambert's ground-breaking study was that the bilingual advantage was in mental flexibility. More recent studies, using various types of methodology, have also revealed that bilingualism has a significant impact on children's ability to selectively attend to relevant information. For example, bilingual children's superiority in cognitive flexibility is reported by Viberg (2001) in terms of book reading activities in which the bilingual children had a tendency to give more detailed and concrete versions in both languages than monolingual children, who tended to provide more condensed versions. As researchers, we should not blindly believe that being bilingual is advantageous in all areas of cognitive development. Or, more generally, rather than simply believing that bilinguals have an advantage over monolinguals or vice versa, it is meaningful to understand in what kinds of cognitive domains we can identify bilingual advantage (and this eventually leads to the discussion of the efficacy of bilingual education programs).

Bialystok does not fail to acknowledge other important issues in the field of bilingualism. In chapter six ("Link to Literacy"), the author explains the

relationship between young children's oral language acquisition and the later years of their language skills development. We are aware that a strong connection exists between learning to talk and learning to read and write, and we also know that language studies—studies on first-language acquisition in particular—have suggested that acquiring language skills is a process interwoven with the intricacies of the continuum of oral language and literacy. Although conversational language skills differ from literacy-related skills in some respects, children grasp considerable literacy-related knowledge even as they acquire language. Bilingual children are no exception, but the questions surrounding bilingual children are fairly complex, from the relatively academic question of whether first- and second-language proficiencies (e.g., lexicon, syntax) are independent or interdependent to the more practical question of whether raising children as monolinguals or bilinguals is desirable for promoting their school success. That is, one of the critical research questions is whether bilinguals possess relatively separate linguistic rule systems for the two languages or there is a common underlying rule system in a bilingual's mind. Verhoeven (1994) identified the effect of the first language on the second language in literacy, vocabulary, and language fluency, but not in morphology and syntax. However, the folk belief bemoaning the “language handicap” in bilinguals persists over the concept that bilingualism is a “language asset.” As a person who has been engaged in research in this field, I feel that more should be done to explain the importance of children's first language. For instance, I teach Japanese at a university on the west coast of the United States and encounter a significant number of students of Japanese heritage in my classrooms. Some were born in the United States and have one or more parents who came from Japan. Others were born in Japan and arrived in the United States when they were very young. Sadly enough, many of these students stopped speaking Japanese in their homes and eventually forgot their mother tongue. If we find that having two languages makes learning to read and write problematic particularly in early school years, we are likely to decide to encourage our children to be monolingual (using English in the case of the United States). Thus, when it comes to bilingual literacy, as researchers we need to explain to nonprofessionals how important it is for children's first language to be maintained and supported.

As Bialystok acknowledges, “the effects of social background, minority ethnicity, parental education levels, and expectations for children's educational levels are all known to influence children's success in schools” (p. 237). In this book, the author basically argues that high levels of bilingualism are correlated with higher achievement in a great number of areas, such as the ability to read and write and the ability to think about language (i.e., metalinguistic awareness). I have found that increasing language ability in either language (English or Japanese) used by bilingual children can accelerate their progress in the other language as well (Minami, 2001). However, while

the case studies of Japanese families suggest the positive effects of being bilingual, we should not forget the part played in this success by both the relatively high practical value of the Japanese language and the instrumental benefits associated with high proficiency in that language, particularly on the U.S. west coast (where knowledge of Japanese is useful for future careers).

One unique feature of this book is that despite the title, the author considers the implications of various theories for language acquisition and cognitive development of all children, not only those who are acquiring a second language but also those who are acquiring the first language. As the book progresses, however, the findings reported in it are increasingly related to a number of issues regarding the education and social circumstances of bilingual children, such as transitional bilingual education, which is the predominant model for programs in the United States (chapter eight). In this book, the author demonstrates convincingly that becoming fluent in a second language does not necessarily mean losing the first language, nor does maintenance of the first language retard the development of a second language. The belief that bilingualism confuses the mind and retards cognitive development is false. On the contrary, a great number of previous studies reported in this book suggest that bilingual children gain some measure of cognitive flexibility. Bilingualism is not an intellectual handicap; instead, it is a cognitive asset. Yet many people still believe in the validity of the critical period hypothesis, claiming that if children have not mastered the second language by early school years, they never will. The belief that children are fast and effortless second-language learners has no basis in fact, however. Certainly, becoming bilingual and maintaining bilingualism, regardless of age, is a difficult process. Because of that, bilingual children need a great amount of support from their communities, their families, and, above all (particularly when they are socioeconomically disadvantaged) their schools.

One of the implications of the research findings reported in this book is that the common sense of urgency about introducing English immediately in schools to language-minority children, and about mainstreaming them as early as possible in school settings, has no basis in fact. Overall, *Bilingualism in Development* differs from, and even surpasses other books of this kind in that it assembles a wide range of research on children's language development, interprets it with analyses of how bilingualism affects that development, and, above all, breaks the myths surrounding bilingualism and bilingual education.

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