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# Defining Bilingualism

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## Introduction

The definition of bilingualism is complex and is influenced by multiple factors such as the age of acquisition of the second language, continued exposure to the first language (L1), relative skill in each language and the circumstances under which each language is learned. Popular definitions of bilingualism conceptualize language knowledge as being a binary category—whether one is classified as having acquired two languages or not (Brutt-Griffler & Varghese, 2004). However, bilingualism should be thought of as being on a continuum, where one can have varying levels of proficiency in two languages, regardless of how and when they were acquired. In addition, language and literacy skills are comprised of multiple subskills. In any given language, bilinguals might be highly proficient in one domain of skills but not the other. For example, a person might show high oral language skills and limited reading skills. The problems in defining bilingualism and the consequences of bilingualism on specific reading related skills will be explored throughout this paper.

## Key Goals

The key goals of the paper are:
1. To make people aware of the complexity of defining bilingualism
2. To briefly describe social and environmental factors related to degrees of bilingualism
3. To describe consequences and implications of bilingualism

## Definitions of Bilingualism

Classifications of bilinguals in the research usually acknowledge the complexity of defining bilingualism. In its simplest form, bilingualism is defined as "knowing" two languages (Valdez & Figueora, 1994). However, a major difficulty occurs in defining what it means to "know" a language. Some bilinguals are highly proficient in both languages they speak, while other bilinguals clearly have a dominant or preferred language. Therefore, when classifying bilinguals it is important to consider varying degrees of bilingualism.

Researchers suggest that native-like proficiency in both languages, referred to as "true" bilingualism, is rare (Cutler, Mehler, Norris, & Segui, 1992; Grosjean, 1982). One factor to consider in defining types of bilingualism is *when* the two languages are acquired in relation to each other. Simultaneous bilingualism is considered to occur when two languages are acquired from birth or prior to one year of age (De Houwer, 2005). Cases

of pure, simultaneous bilingualism with neither language being dominant are also rare. For sequential bilingualism, when one language is acquired following another, the age of L2 acquisition is important (Flege, 1992). Researchers are discovering that sensitive periods for native-like L2 acquisition occur at younger ages than previously believed. For example, brain organization is different for L2 acquisition after 5 years of age in contrast to before age 5, when native-like organization for language is possible (De Houwer, 2005; Weber-Fox & Neville, 1996). Therefore, children who acquire the L2 at school would not be considered native speakers, even if they have high levels of L2 proficiency. In older language learners (preadolescents and older), age of acquisition is related to the learner's ability to perceive and produce speech sounds in their second language (Flege, 1992). Another factor related to L2 pronunciation is the frequency and continued use of the L1.

In addition to classifying when languages are acquired in relation to each other, the reasons *why* the L2 is acquired can be used to categorize bilinguals (Valdez & Figueora, 1994). For example, elective bilinguals learn another language in a formal setting, typically as an additional course credit at school, while continuing to use their L1 most of the time. They are also classified as "additive bilinguals" because the L2 is learned in addition to an L1 that is maintained at a high level. Circumstantial bilinguals, however, learn their L2 because they are required to do so to attend school or to find work. They are usually immigrants learning the societal language. These bilinguals are often classified as "subtractive bilinguals" because L1 skills usually decrease or are lost in favour of the majority language, the L2. Subtractive bilingualism is particularly common in children of immigrants.

An additional consideration in the definition of bilingualism includes the concept of language dominance. Most bilinguals have stronger skills in one language, their dominant language. However, their dominant language need not be their L1. In addition, it is possible to show language dominance in one language for one domain (e.g. L1 for home) and dominance in the other language for another domain (e.g. L2 for work).

Other terminology that is relevant to classifying bilinguals is whether or not they were born in Canada. If not, their age of arrival is relevant. (See the previous discussion on a related issue: age of acquisition.) In Canada, first and second generation immigrants are the most common type of bilingual learners. Although the L1 might be the language of the local community, it is a minority language in the larger community. In addition, these individuals continue to be exposed to their L1 in the home, and often through heritage language classes in an attempt to minimize L1 loss. To give a general overview of the linguistic picture in Canada, surveys of recent immigration to Canada can be examined (Statistics Canada, 2001). For example, between 1996 to 2001 approximately 1.2 million immigrants arrived in Canada, 46% of which moved to Toronto, 17% to Vancouver, 12% to Montreal, and the remaining 25% of which settled in other areas of the country. Among residents who reported speaking only one language, the majority reported speaking only English, followed by half as many people who spoke French. Other common L1s that are not official languages are: Chinese, Italian, German, Punjabi, Spanish, Portuguese, Polish and Arabic, in decreasing order of prevalence. One way to demonstrate the differences between communities is by comparing a

smaller urban city with a larger urban centre. For example, in Kitchener, Ontario, 24% of the population speaks a language other than English or French, but only 1% of these people use this language as their main language at work. In comparison to Toronto, where 47% of the population speaks a non-official language as their L1, and only 4% use a non-official language at work. In cities such as Toronto, there may be many larger communities that can support specific L1 groups culturally so that there is not as much language loss.

The relative degree of proficiency in the two acquired languages has consequences for language and cognitive skills of bilinguals. As we will note, being bilingual has certain benefits, but it also poses some challenges. Definitions of bilingualism are relevant for clinicians and educators because degrees of L1 and L2 proficiency and L1 and L2 language learning experiences cannot be assumed to be equal across bilingual speakers. The cognitive differences inherent in those who speak more than one language are also important because they can inform whether or not differences in the performance of an individual bilingual child arise due to learning difficulties etc., or whether they are a consequence of being bilingual.

### *Social and Environmental Factors*

Most sequential bilinguals learn their first language in the home and their second language in the school and/or community. In order to maintain the classification of bilingualism, communicative competence in the L2 must be acquired and L1 proficiency must be maintained. Pearson (2007) describes social and environmental factors that can have an impact on whether children become bilingual, or adopt and speak only the majority language. For example, maintaining the first language is related to the amount of continual exposure to the first language. In families where parents only speak the L1 and where children are exposed to the minority language early and often, a greater chance of true bilingualism exists. For example, to acquire some types of grammatical structures exposure to the language is required for correct use (e.g. when to use “much” versus “many”) (Gathercole, 2002). The attitudes of parents, siblings and peers toward the minority language can add value to, or subtract value from, the language. In fact, any way of increasing the attractiveness of the minority language (i.e., through books or mass media) is likely to help maintain that language. In most cases, children are naturally attracted to the majority language. Finally, a powerful source of minority language exposure is education, specifically the provision of programs within the school to enhance first language learning and to show that it is a valued language. In Canada, provinces, school boards and urban centres provide support for international/ heritage language learning programs.

### *Consequences and implications of bilingualism*

Research conducted with bilinguals also attempts to determine how language is organized in the brain and whether languages assist each other (positive transfer) or interfere with each other (negative transfer). Educators, clinicians and parents are often interested in whether children who are bilingual show advantages or disadvantages on language skills in comparison to their monolingual peers. Research studies with adults

have found that a bilingual person's mental dictionary, which stores word meanings and spelling-sound information, incorporates items from all known languages (Jiang, 2004) and that both the L1 and L2 are activated simultaneously when adults read their L1 or L2 (Dijkstra & van Heuven, 2002).

Much of the research examining cognitive consequences of bilingualism in children has been conducted in Canada. The Canadian immigration context, with its relatively high proportion of middle-class and educated immigrants provides a unique opportunity to examine the effects of bilingualism without the additional burden of poverty and low parental educational level.

In general, L1 oral language skills are related to L2 oral language skills, where children with strong L1 skills show better acquisition of their second language (Cummins, 1991). However, different language skills are differentially affected in positive and negative ways by bilingualism. Vocabulary development is typically delayed in learning a second language, whether that language is acquired sequentially or simultaneously (August, Carlo, Dressler & Snow, 2005). Further research on vocabulary acquisition shows that there are specific differences in the vocabulary knowledge of L2 learners. Specifically, breadth of vocabulary—as assessed by the number of words known, and depth of vocabulary—the richness of the word representation, are two terms typically used to describe differences in vocabulary knowledge. L2 groups have been identified as having relatively more difficulty with depth of vocabulary knowledge (e.g., Feldman & Healy, 1998; Ordonez, Carlo, Snow & McLaughlin, 2002). Additionally, in a model testing L2 reading comprehension, vocabulary knowledge was especially important for improved reading comprehension outcomes (Proctor, Carlo, August & Snow, 2006), while poor vocabulary skills can have a negative impact on reading comprehension skills. Reading comprehension skills in the L2 remain an area of difficulty in bilinguals for a long time (August et al., 2005).

An additional area of difference between monolinguals and bilinguals is metalinguistic awareness. Metalinguistic awareness is thought to be acquired differently in monolinguals and bilinguals (see Bialystok, 2007). Metalinguistic awareness includes the awareness of the form of language, such as the awareness of sounds (phonological awareness), grammatical "rules" (syntactic awareness) and grammatical markers (morphological awareness). Some studies have shown that bilingualism enhances metalinguistic ability (Yelland, Pollard & Mercuri, 1993). However, evidence that supports a bilingual advantage for the acquisition of phonological awareness is not consistent, with some studies showing no differences between monolinguals and bilinguals and other studies showing this advantage for bilinguals (Bruck & Genessee, 1995; Carvalos & Bruck, 1993). When group differences do occur, they tend to disappear by first grade. In addition, these relationships may depend on the degree of similarity between languages and the degree of consistency within a language. For example, the Spanish language has a very consistent orthography, where sounds map onto letters (phonemes to graphemes) quite readily (see Ziegler & Gosami, 2005). In contrast, Chinese script does not map onto the level of individual sounds. One study found higher levels of English phonological awareness for Spanish-English speakers in comparison to Chinese-English speakers (Bialystok, Luk, & Kwan, 2005).

Research conducted on learning to read English as a third language extends these differences in literacy skills that have been found between monolinguals and bilinguals. For example, one study found that children who had proficiency in two languages (Hebrew and Russian) and were learning English as a third language, outperformed children with less proficiency in these two languages and also outperformed monolingual children who were learning English only as an L2 on measures of phonological awareness, nonword reading, and nonword spelling (e.g., barp, stip) (Schwartz, Geva, Share, & Leikin, 2007). Thus, research seems to show support for the trend that acquiring more than one language has benefits for literacy acquisition. Schwartz et al. (2007) described this phenomenon as a form of additive multilingualism. She also noted that in many environments, the L1 and even L2 are non-majority languages that are not used in formal educational contexts. This situation can also be applied to a Canadian context, where children may grow up speaking one or more other languages at home, and are subsequently educated in English, which may or may not be spoken at home. Specifically, middle class families might provide additional L1 enrichment opportunities in order to maintain their children's first language skills and associated culture (Chow, 2004).

## Conclusion

The definition of bilingualism is more complex than a simplistic "yes/ no" categorization. Definitions of bilingualism must include the degree of proficiency in each language and circumstances under which each language is learned. Even outwardly simple questions such as what it means to "know" a language must be considered. Factors that facilitate or hinder bilingualism must be considered. In addition, being bilingual can have positive and negative consequences for language skills. Finally, carefully defining degrees of bilingualism in each circumstance and for each learner is important because educational decisions depend on the accuracy of these definitions.

**Published online:** 2008-03-26 12:07:02

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To cite this document:

Gottardo, A., & Grant, A. (2008). Defining bilingualism. *Encyclopedia of Language and Literacy Development* (pp. 1-7). London, ON: Canadian Language and Literacy Research Network. Retrieved [insert date] from http://www.literacyencyclopedia.ca/pdfs/topic.php?topId=236



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