

# Semilingualism and Cognitive Deficiency

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## Abstract

One of the biggest fears among parents of bicultural children is that exposure to two or more languages at the same time may confuse their child and hamper his or her natural language development skills. Recent news reports about bilingual children suffering in school due to lack of proficiency in their native or second languages have sensationalized the topic. This paper reviews research on the popular yet controversial notion of Semilingualism, the idea that some children never acquire a native language because of exposure to two or more languages in their youth and that this may also negatively affect their cognitive development. Despite strong criticism, the idea is still popular based upon empirical evidence. An attempt to define the term is followed by an analysis of research and opinions from both sides of the debate.

## Introduction

All normal human beings have the inherent ability to acquire languages (Chomsky, 1959; Bley-Vroman, 1989) and the majority of researchers agree that most language learning will have taken place before the age of six (Pinker, 1994; Tager-Flusberg, 1997). However, recent news reports in the United States and in Japan have brought the controversial and often misunderstood notion of semilingualism back to the common lexicon. An article in the *Los Angeles Times* reports the discovery of 6,800 children within the Los Angeles Unified School District who have been determined to be “nonverbal in both English and their native language” based on a battery of language proficiency tests (Pyle, 1996). An article in *The Yomiuri Daily* discusses how Japanese children who accompany their parents on overseas work assignments return to Japan not completely having learned a foreign language, yet having lost or permanently hindered their Japanese language ability

(Niyekawa, 1997). Research into semilingualism started in the early 20th century and reached its peak in the late 1970s and early 1980s. Different interpretations of the term add confusion to those trying to understand it, and linguists continue to debate whether it truly exists in its commonly defined form.

## History of Semilingualism research

The concept of semilingualism originated from research conducted on the consequences of political influence and language shift among indigenous language minority populations in Scandinavia and North America. Bloomfield (1927) wrote of the speech characteristics of Native American Menominee Indians and observed that one 40-year-old man in particular could neither speak Menominee or English. This man had a small vocabulary, incorrectly used inflections, and only used simplified grammar patterns in both languages. He was thought not to be proficient in any language.

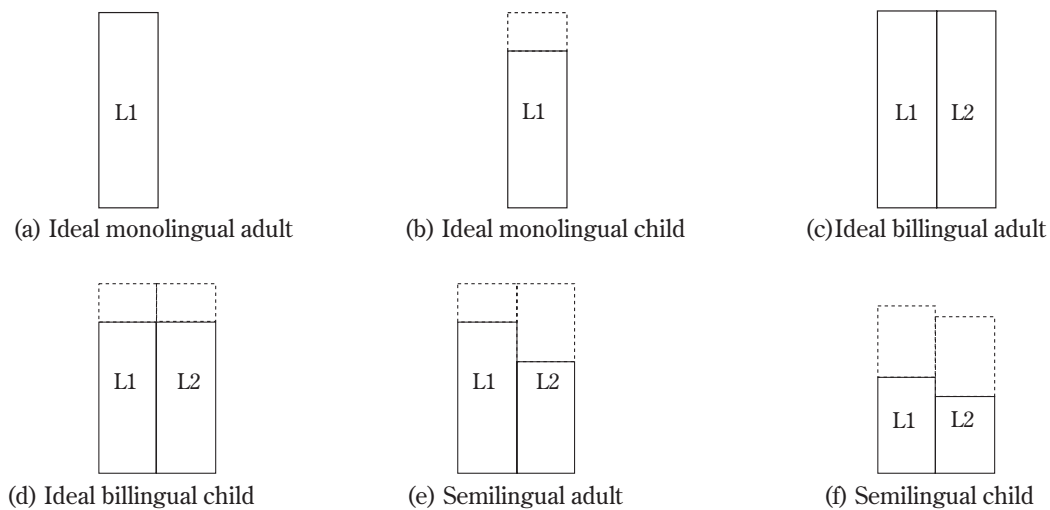


Figure 1. The container view of competence (Skutnabb-Kangas 1981)

Desperate for an explanation, Bloomfield created the term Semilingualism. Ever since then, researchers have disagreed about its exact definition. The most commonly accepted is that children who are exposed to two languages simultaneously may never attain native-like proficiency in either. This notion is also referred to as “balanced bilingualism” (Lambert, 1975), “double semilingualism” (Ringbom, 1962), “subtractive forms of bilingualism” (Swain, 1979), and “limited bilingualism” (Cummins, 1981). And more than one study has labeled monolinguals who did not have proficiency in any native language as semilinguals (Bloomfield, 1927; Skutnabb-Kangas & Toukomaa, 1976).

The earliest attempt to seriously research, identify and define the term is credited to the Swedish linguist Hansegård (1968, 1975). He defined semilingualism as a lack of competence or as a deficit in the two or more languages a person knows in six areas: size of vocabulary, grammatical correctness, unconscious processing of language, language creation, mastery of the functions of a language, and meaning and imagery. This definition of the term has also been used to describe the language skills of some children of Finnish migrant workers in Sweden (Skutnabb-Kangas 1975, 1981; Skutnabb-Kangas &

Toukomaa 1976; Toukomaa & Skutnabb-Kangas 1977; Lasonen & Toukomaa 1978). It was also used by Canadian researchers who tried to account for the different effects of French-medium immersion programs on children (Lambert & Tucker 1972; Swain 1978; Swain & Lapkin 1981). However, this definition of the term has been criticized as “a confused grab-bag of prescriptive and descriptive components” (Edelsky et al 1983, p. 2).

Skutnabb-Kangas (1981, p. 26) used a diagram to illustrate semilingualism as opposed to ideal monolingualism and bilingualism. In Figure 1, (a) refers to a fully competent, ideal monolingual adult speaker, (b) to a monolingual child who is still learning the language but will eventually reach full competency, (c) to the ideal bilingual adult who has equal native like proficiency in two languages, and (d), to the ideal bilingual child, who will eventually develop equal proficiency in both languages. A semilingual adult is shown in (e), in which the person’s language ability in both languages is underdeveloped. The loss of the L1 may have been caused by the development of the L2, or complete competence in the L1 may never have been fully developed. Diagram (f) shows the semilingual child, who, like the semilingual adult, has not developed

much ability in either language and may never do so.

### The Threshold Hypothesis

Jim Cummins wrote the seminal works addressing semilingualism and cognitive deficiency in his studies of minority children of low socioeconomic background who appeared to perform poorly on various tests in their classroom performances in Canada. His Threshold Hypothesis (1976, 1978, 1979a, 1979b) suggests that the level of linguistic competence in a bilingual child's L1 and L2 may also affect his or her cognitive development and scholastic progress in other areas. This idea accounts for research findings that seems contradictory in nature: some bilinguals seem to experience cognitive advantages related to their bilingualism (Barik & Swain, 1976) while others do not (Peal & Lambert, 1962); some bilingual children who were exposed to both languages in an unsystematic manner enter school with a less than native-like command of grammar and vocabulary in both languages (Cummins, 1979a; Gonzales, 1977; Kaminsky, 1976), and a home-school language switch was detrimental to the success of submersion students (US Commission on Civil Rights, 1975; Skutnabb-Kangas & Toukomaa, 1976), but not to immersion students (Lambert &

Tucker, 1972; Cohen & Swain, 1976; Swain, 1978).

The Threshold Hypothesis is graphically depicted in Figure 2. Central to this model is the notion of additive bilingualism, where majority language children learn an L2 with no adverse effect on the L1, and subtractive bilingualism, where an L1 is being replaced by an L2 and the competency in the L1 will decrease (Cummins, 1979a). According to Cummins, "it is likely that, under these circumstances, many bilingual children in subtractive bilingual learning situations may not develop native-like competence in either of their two languages" (1979b, p. 20).

Cummins (1979b, 1980, 1981) popularized two concepts that are components of the Threshold Hypothesis: Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP). BICS is defined as the conversational, context-based spoken aspect of the L2 while CALP involves the type of L2 proficiency needed to communicate precise and explicit non-contextually based tasks that are relatively cognitively demanding, the kind of language needed to succeed in academic settings. A child needs to be proficient in BICS and CALP in both languages to succeed at an

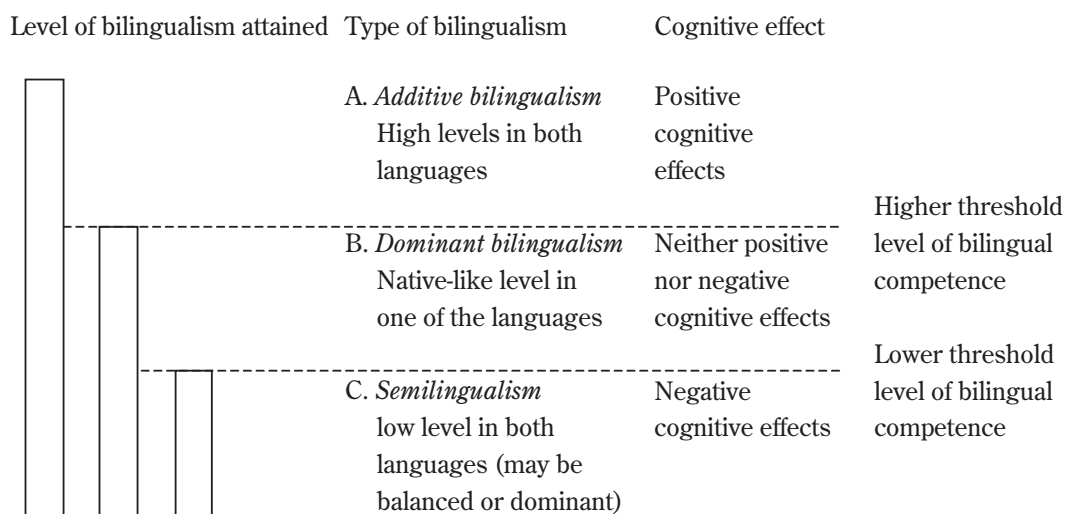


Figure 2: Cognitive effects of different types of bilingualism (Cummins 1979a)

L2 medium school and to be considered an additive bilingual. Semilingualism is seen as a low in CALP since a student will experience difficulty in succeeding in school and this will affect his or her cognitive ability and potential. This also means that literacy is a CALP skill and lack of it suggests semilingualism. Cummins, however, never suggested that the innate ability of minority children to learn a first language was deficient (1979a). A person may be fully proficient in BICS but be lacking in CALP because of a lack of opportunities in academic settings.

There are many critics of the Threshold Hypothesis (Edelsky, et al, 1983; Marin-Jones & Romaine, 1986; Romaine, 1989; Troike, 1984; Wald, 1984; Wiley, 1996) to which Cummins has responded (Cummins & Swain, 1983; Cummins, 1984; 2000). Critics argue that academic achievement is different from linguistic achievement—that CALP “is the ability to do what many schools unfortunately define as achievement of various kinds” (Edelsky, et al, 1983, p. 8). Edelsky, et al, also wrote in the same article that CALP is “implicitly presented as the highest level of cognitive functioning and language development” (p. 8). Their article points out the fact that no two speech communities agree on what is native-like proficiency in their language. Marin-Jones & Romaine (1986) go on to show that the way Cummins rigidly compartmentalizes language skills is not realistic and the evidence he extracted from the tests used at schools to gauge language skills is, at best, only indirectly linked to the notion of a competent language learner. One study has shown that students who had been identified by U.S. school officials as semilingual differed from other children in no linguistically significant manner (Cummins & Miramontes, 1989). In reply to the criticism, Cummins & Swain (1983) later clarified the deficit view of the Threshold Hypothesis by stating that a deficit theory refers to “inherent deficiencies within

the child rather than to sociopolitical or educational conditions” (p.23), which they did not intend to address.

### Prescriptivism

The concept of semilingualism is sometimes associated with prescriptivism, the notion that some languages are inherently superior to others (Martin-Jones & Romaine 1986; Macswan 1999, 2000), and that a lack of ability in a prestigious dialect of a language, such as the manner of speech used by the educated class, constitutes an inability to speak that language properly and being labeled as semilingual. Despite research conducted by Boas (1911) and Bloomfield (1933), who found that all languages were equally complex, prescriptivists have the core belief that certain languages and non-standard dialects such as Ebonics and Hawaiian Pidgin-Creole are primitive and lacking in complexity compared to their own. This notion has seen little debate, as academics are rarely challenged as long as they “confined their campaign to the languages of remote tribes, they did little to upset their colleagues in departments of modern and classical languages” (Newmeyer, 1986, p 42).

Of the relationship between prescriptivism and semilingualism, Macswan wrote that they are “both doctrines that attribute a linguistic deficit to some population of children, creating a climate for academic failure by assigning these students to ‘low ability groups.’ Such ability labels have been widely used to stigmatize African American English (or Ebonics) as ‘improper’ or ‘grammatically incorrect.’ Just as negative ability labels may be attached to entire speech communities in this way, they may also be attached to individuals who are said to be semilingual.” (2000, p.8).

### Attitude and semilingualism

The attitude a child has toward his own culture and the L2 culture may affect his language learning achievement in both languages (Gardner & Lambert, 1959; Gardner, Lalonde, & MacPherson, 1985). When the attitude towards both the target culture and the native culture are both positive, additive bilingualism may occur—a learner will experience increased proficiency in both languages. When a learner has a negative attitude toward his own culture yet embraces the target culture and its language, subtractive bilingualism may occur, with increased ability in the L2 and decreased proficiency in the L1. When a learner experiences a negative attitude towards both the native and target culture, both languages may suffer from disuse and semilingualism may occur. When a child has a positive attitude toward his native culture and a negative attitude toward the target culture, monolingualism may occur (Ellis, 1994).

### Conclusion

People who are exposed to two or more different languages at the same time in childhood can appear to lack complete competence in one single language. The evidence for this derives from their apparent lack of accomplishment in academic settings due to socioeconomic reasons. However, the ability to do well in school as a gauge of linguistic competence is disputed. Evidence shows that semilingualism, when defined as a low level of CALP, does exist, but when defined as an inherent inability to acquire one or more languages, does not in normal human beings. Semilingualism is a controversial idea that attempts to account for any cognitive deficiencies in children who had lacked sufficient L1-medium instruction before being exposed to an L2.

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