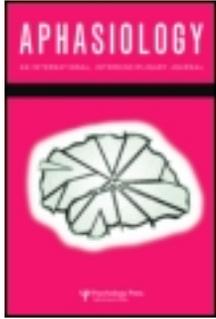


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## Aphasiology

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/paph20>

## Bilingualism : A neglected and chaotic area

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Published online: 29 May 2007.

To cite this article: Alfredo Ardila (1998): Bilingualism : A neglected and chaotic area, *Aphasiology*, 12:2, 131-134

To link to this article: <http://dx.doi.org/10.1080/02687039808250468>

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## Bilingualism: a neglected and chaotic area

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It is not usual to find, in the domain of aphasia, a paper directed to as important a topic as Roberts's paper. It is difficult to disagree with it: bilingualism is an extremely important issue in aphasia, but unfortunately it represents a rather neglected area.

My main concern refers to the definition of bilingualism and multilingualism, given the tremendous variability that can be found in the mastery of a second language. As Roberts points out, 'there is not a generally accepted scale to measure bilingualism by which subjects can be described or grouped'. This is, I believe, a core and most important issue in bilingualism and multilingualism.

To understand or speak a second language is not a dichotomous decision; it is not a question that can be answered 'yes' or 'no', and this has been a significant limitation to research on bilingualism. According to a loose definition, the majority of the world's population is bilingual (De Bot 1992), even though, using more stringent criteria, perhaps no more than 50% of the world's population can be considered bilingual. As Roberts points in the footnote to her paper, 'normal' language performance in bilinguals is very difficult to establish, given the tremendous diversity of the bilingual speakers of any pair of languages.

Several distinctions have been proposed to group bilinguals. The distinction between early and late bilingualism seems to be the simplest one, and the most extensively used. Early bilingualism occurs when the individual learns the second language before the age of 12 (Lenneberg 1967). After this age the acquisition of a second language will be mediated through the first language, and second language learning will be incomplete. The distinction between coordinate, compound, and subordinate bilingualism (Weinrich 1953) has also been extensively used. The coordinate bilingual is an early bilingual who can function as a native speaker of each language (Paradis 1978). These distinctions, though useful, are insufficient, and even a particular bilingual can belong to more than one group.

Not only are there many factors potentially capable of affecting the ability to speak and understand a second language, but bilingualism also appears under quite different contexts and diverse circumstances.

Bilingualism may depend upon the specific cultural context. Bilingual Spanish-Catalonian in Barcelona, French-English in Montreal, and English-Spanish in Miami may be quite different. Tucano Amazonian Indians speak at least two languages: the father's and the mother's language. A Tucano person must marry somebody who speaks a different language. At home the father's language is the 'official' language, but the mother speaks in her language when the father is absent.

In Miami, Spanish and English are not in conflict, and the 'rules of the game' are clear enough: usually English is the official language, and Spanish is the informal one. In addition, all possible combinations of Spanish and English can be found with regard to age of acquisition, proficiency (oral and written), preference (probably correlated with the degree of cultural identification and 'cultural loyalty'), and patterns of use (English, Spanish, and any type of combination and

mixture can be imagined). The language spoken at home and at work can be English or Spanish, or any type of mixture of both. Miami would seem to be a perfect place to study bilingualism, but two subjects equivalent in degree of bilingualism can barely be found. Many second-generation Hispanics could be considered as early balanced bilinguals (coordinate bilinguals), and even native speakers of two languages (authentic bilinguals), or speakers of an 'extended language' (Grosjean 1989). Most of them, however, present difficulties in understanding the Spanish language beyond a simple conversation, or in communicating a relatively complex idea in Spanish. Code-switching is the norm when speaking Spanish, but not English, because it is assumed that Spanish speakers can understand at least some English (and hence code switching is acceptable), but English speakers do not understand Spanish.

Some variables are considered crucial to pinpoint the degree of bilingualism: age and sequence of acquisition, method of acquisition, schooling language, contexts of the two languages, patterns of use of the two languages, personal and social attitudes towards each language (e.g. Albert and Obler 1978, Manual-Dupont *et al.* 1989, Kilborn 1994, Paradis 1978, Vaid 1986), and, I would add, individual differences in verbal abilities. However, they are only general variables, and many variations can be found:

1. The age, sequence, and method of acquisition are not necessarily correlated with the degree of mastery of each language. As an example, many Hispanics in the US initially learned Spanish in their native countries, and used only Spanish until the age of 7 or 8 years. They moved to the US and, years later, they can barely speak Spanish, whereas they speak fluent English.
2. Schooling language can be a highly significant variable. Nonetheless, many children attend classes in English, but communicate among themselves in Spanish. Also, in general, the degree of exposition to either language can be extremely variable (home language, TV, neighbours, friends, etc.).
3. Personal and social attitudes towards the two languages can present significant variations. Continuing with the example of the Hispanics in the US, it is observed that some of them consider that what is really important for them and their children is to learn good English; Spanish does not matter. Others believe that they should maintain the Spanish language, and their children should learn not only to speak Spanish, but also to read, to write, and even to appreciate Spanish literature. Quite a significant percentage are somewhere in between. This may be related to the degree of cultural identification, the type of links maintained with the native country, the age, the community they are living in, etc. The point is that quite significant variations are observed.
4. Individual differences in the ability to learn a second language have not been a frequent topic in bilingualism literature, but very significant differences are observed in the ability to learn and use not only a first, but also a second language (Kilborn 1994).

In addition to the subject's variables (age, sequence, method of acquisition, etc.) many situational factors may potentially influence the level of understanding of a second language: Who is the speaker? What is the topic? What is the communication channel (e.g. face-to-face, by telephone, radio, TV?) What is the specific situation? How long will the communication last? etc.

Many people around the world study a second (and sometimes a third) language at school. This school learning is usually sufficient to read a rather simple text, or to maintain a very simple conversation, but nothing else. Frequently this second language is not used beyond the school situation. These students may be considered as subordinate but early (sometimes, late) bilinguals, with the second language strongly associated with a transient context (the school). Frequently, the lack of use of the second language results in a significant decay of second language knowledge over time. Should these people be regarded as bilinguals? The answer, of course, depends on the definition of bilingualism.

To be bilingual presupposes understanding of a second language. But to understand what? Phonemes? Words? Sentences? The degree of understanding for each language level may be different. Phoneme discrimination is correlated with the similarity between the first and second phonological systems. A Spanish speaker, even if fluent in English, may have serious difficulties in discriminating between the phonemes /b/ and /v/. Nonetheless, any Spanish speaker can easily discriminate virtually all the Greek phonemes. In a second language it is very difficult to learn the polysemia that may exist in many words, and the understanding of words in consequence can be insufficient; moreover, the semantic fields of the words are not coincidental across languages. Furthermore, sometimes all the words in a sentence can be understood, but not the meaning of the sentence.

In addition, what level of understanding should be considered to be adequate? 50%?, 70%?, 95%? As mentioned above, the level of understanding can depend upon many variables, some of them poorly analysed. Even worse, the level of understanding can significantly fluctuate across a conversation. Similar considerations could be raised with regard to the ability to speak. So, what it means to understand a second language does not seem to have a straightforward answer.

The similarity between the two languages can be very important. A Spanish speaker can understand a significant percentage of Italian, perhaps some 30–50%. For understanding a similar percentage of Russian or Chinese, Spanish speakers require hundreds of hours of learning. So, Spanish–Italian bilingualism might be considered as kind of ‘weak bilingualism’, whereas ‘Spanish–Chinese’ bilingualism should be regarded as ‘strong bilingualism’. In the first case the individual has learned just some ‘additional’ language; in the second case the individual has learned a very significant amount of ‘new’ language. Brain organization of both languages and language disturbances in cases of brain pathology in the first and second case may be very different.

I certainly agree that, by studying bilinguals, we can improve our understanding of language *per se* (Caramazza and Brones 1980), yet why is the literature, as Roberts emphasizes throughout her paper, so scarce, despite the fact that there are so many bilinguals? A similar question could be raised with regard to the cross-linguistic studies of aphasia in monolinguals: why are there so few research studies on aphasia in languages other than English, French, Russian, German, Italian, and Spanish? Contemporary humans speak over 3000 different languages (Swadesh 1967). Interestingly, about half of these languages are Amerindian languages, but to the best of my knowledge not a single case of Amerindian language aphasia has ever been reported. Analysing aphasia in other languages can dramatically improve our understanding of language *per se*. I think that our understanding of brain organization of language and language disturbances associated with brain pathology is still extremely limited (Benson and Ardila 1996). However, aphasia in

bilinguals and cross-linguistic analysis of aphasia represent major clinical and research topics for the future.

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## Bilingual aphasia: the central importance of social and cultural factors in clinically oriented research

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Patricia Roberts's call for clinically oriented research in the field of bilingual aphasia is most welcome. The lead article sets out a number of clinically relevant questions which remain unanswered, and proposes ways in which research could be directed towards providing answers to these questions in the future. In her introduction, Roberts indicates that she will focus on the *language impairment* in bilingual aphasia, rather than on the associated cultural factors. While recognizing the importance of cultural factors, the author states that 'an entirely different body of literature and a different set of factors must be considered when dealing with the impact of cultural factors on communication and on how the patient, family, and therapist will approach the patient's aphasia'. This may well be true. However,