

Bilingual and Monolingual Language Modes

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Bilinguals communicate differently when they are with monolinguals and when they are with bilinguals who share their languages. Whereas they avoid using their other language(s) with monolinguals, they may call upon it (or them) when interacting with bilinguals, either by changing over completely to the other language(s) or by bringing elements of the other language(s) into the language they are speaking.

This change of behavior, which affects both language production and language perception, has been alluded to by well established researchers over the years. Thus, Weinreich (1966), one of the founding fathers of bilingualism research, wrote in his classic book, *Languages in Contact*, that bilinguals limit interferences when speaking to monolinguals (he used “interference” as a cover term for any element of the other language), whereas, when speaking to other bilinguals, they use them freely. Other researchers such as Hasselmo (1970) and Baetens Beardsmore (1986) have made similar points. Grosjean has investigated this phenomenon—language mode—in a series of publications (Grosjean, 1985, 1989, 1994; see Grosjean, 2001, 2008, for reviews).

Language Mode

Description

Language mode is the state of activation of the bilingual’s languages and language-processing mechanisms at a given point in time. Figure 1 illustrates the concept which is best presented as a continuum in a two-dimensional representation. The bilingual’s two languages (A and B) are depicted on the vertical axis by squares.

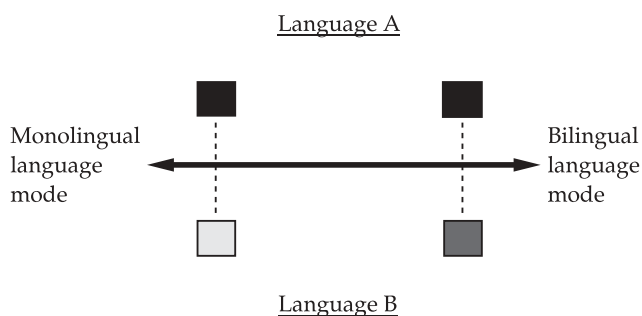


Figure 1 A visual representation of the language-mode continuum

Note. Two positions on the continuum are illustrated for a person with two languages (A and B): toward the monolingual end (on the left) and toward the bilingual end (on the right). The level of activation of a language (square) is depicted by the degree of darkness (black represents an active language and white an inactive or deactivated one).

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Two positions on the continuum are illustrated in the figure. In both positions, language A is the most active (it is the main language being used, or base language, hence the black square) and language B is active to varying degrees. On the left, language B is only very slightly active (lighter square), and the bilingual is said to be at, or close to, a monolingual language mode. On the right, language B is active (darker square), but it is not as active as language A, and the bilingual is said to be in a bilingual mode. (To simplify matters, we will mention only two languages at this point, but language mode applies also to three or more languages, as we will see below.)

Bilinguals will usually be in a monolingual mode (left part of the figure) when they are interacting with monolinguals with whom they simply cannot use their other language (here, language B). They have to deactivate the latter, usually unconsciously, so that it is not produced and hence lead to a breakdown in communication. They can also be in a monolingual mode with other bilinguals if they have only one language in common. Bilinguals will be in a bilingual mode (right part of the figure) when interacting with other bilinguals who share their languages and with whom they feel comfortable bringing in the other language. In this case, both languages are active, but one language (language B here) is slightly less active as it is not the main language of communication. Bilinguals can also be in an intermediate mode (between the two end points), for instance when they know that their interlocutor is bilingual but does not like to mix languages. In this case, the other language (language B in the example) will be only partly activated. What has just been said about speakers applies to listeners; they can find themselves at various points along the continuum depending on what they are hearing as well as on situational factors such as knowing that they share the same two languages with their interlocutor.

Language mode is made up of two components. The first is the base language chosen (language A in the example) and the second is the comparative level of activation of the two languages—from very different in a monolingual mode (left part of figure) to quite similar in a bilingual mode (right part of figure). These two components are usually independent of one another—one can change without affecting the other. Thus, the base language can be changed but not the comparative level of activation of the two languages. This takes place, for example, in a bilingual interaction when a bilingual switches over completely to the other language (which becomes the base language). In the example above, language B would become totally active and language A slightly less active. Similarly, there can be a change in the level of activation of the two languages without a change in base language, as in Figure 1. Thus, when referring to language mode, both aspects need to be mentioned. For example, a Spanish–English bilingual speaking Spanish to a Spanish monolingual is in a “Spanish monolingual mode”; the same bilingual speaking English to another Spanish–English bilingual is in an “English bilingual mode,” and so on.

Movement Along the Language-Mode Continuum

A number of factors will influence a bilingual’s position on the continuum, and hence the activation level of the languages concerned. First, there are the participants involved, that is, their language proficiency, their relationship, their language-mixing habits and attitudes toward language mixing, their mode of interaction, and so forth. For example, the mode will be monolingual if a bilingual is interacting with a monolingual family member. Second, the situation of the interaction will influence language mode, that is, the physical location, the presence of monolinguals, the decorum, and so on. Dewaele (2001), for example, found that the formality of the situation turned out to be a crucial factor in determining the position of the speaker on the language-mode continuum. Third, the form and content of the message being uttered or listened to will have an impact on the mode. Thus, if the topic is usually covered in another language, and the interactant is known to be bilingual, the

bilingual speaker will slip into a bilingual mode so as to call upon the other language for a word or an expression. In such cases, the base language may even change. Finally, the function of the language act (to communicate information, to request something, to create a social distance, to exclude someone, etc.) may change the language mode.

Movement along the continuum can occur at any time when the above factors change. In addition, the movement is usually not conscious. Bilinguals will also differ among themselves as to the extent to which they travel along the continuum. Some are rarely at the bilingual end—they mainly communicate with monolinguals or remain within one language with bilinguals. Others, such as bilinguals who live in bilingual communities, rarely leave the bilingual end.

Impact on Language Behavior

The particular language mode bilinguals are in will have an effect on the amount of use of the other (guest) language, the amount and type of mixed language used, the ease of processing of the two languages, and the frequency of base-language change. For example, in the monolingual mode, the language not being used is deactivated. This prevents a change in base language and limits almost totally the use of code switches and borrowings. However, dynamic interferences—deviations from the language being spoken due to the influence of the other deactivated language(s)—may still take place. In the bilingual mode, bilinguals usually first adopt a base language through the process of language choice and, when needed, bring in the other—guest—language in the form of code switches and borrowings. In addition, the base language itself can be changed, that is, the slightly less activated language becomes the base language, and vice versa. A change of topic, of situation, of interlocutors, and so on, may lead to a change of base language. In perception, a monolingual mode will usually “block out” the other language, leading sometimes to misperceptions if the latter is used, or slower processing. Cheng and Howard (2008) examined the cost of language switching when it was unexpected in one context (monolingual mode) and expected in the other (bilingual mode). They showed a significant reaction-time difference in the two conditions, thereby illustrating the impact of language mode during perception.

Evidence for Language Mode

There is increasing evidence of the importance of language mode in bilingual communication. In language production, observational and experimental studies have shown its impact. Poplack (1981) showed that a member of El Barrio—a Puerto Rican neighborhood in New York—produced about four times more code switches in informal situations, compared to formal situations. Treffers-Daller (1998) placed a Turkish–German bilingual in three different situations and showed changes in the base language used as well as differences in the amount of code switching that took place. In a series of experimental studies, Grosjean and his colleagues (reported in Grosjean, 2008) manipulated the language mode participants were in using a “telephone chain” task, and studied the impact this had on language production. The number of guest-language elements (code switches, borrowings) increased significantly as the participants moved from a monolingual to a bilingual mode, whereas the number of base-language syllables decreased, as did the number of hesitations.

In perception, Elman, Diehl, and Buchwald (1977) carried out a categorical-perception study with bilinguals in which they controlled for the base language and “pushed” bilinguals toward the monolingual end of the language-mode continuum (they used naturally produced stimuli, filler words in the base language, as well as carrier sentences in either English or Spanish). They found a boundary shift, with ambiguous stimuli perceived

significantly more as English or as Spanish depending on the language condition listeners were in. In this study, unlike in an earlier study by Caramazza, Yeni-Komshian, Zurif, and Carbone (1973), there was constant language-specific information which activated one language much more than the other and hence kept the bilinguals toward the monolingual end of the continuum.

In language acquisition, there is increasing evidence of the importance of language mode. For example, Lanza (1992) studied a 2-year-old Norwegian–English bilingual child, Siri, interacting with her American mother who feigned the role of a monolingual and did not mix languages, and with her Norwegian father who accepted Siri’s language mixing and responded to it. Siri did much more content-word mixing with her father than with her mother, showing thereby that she leaned toward the monolingual end of the continuum with the latter and the bilingual end with the former. Genesee, Boivin, and Nicoladis (1996) recorded English–French bilingual children as they spoke to their mother, to their father, and to a stranger who only spoke their weaker language. The more a parent switched languages during communication, the more the child did too. Thus, as in Lanza’s study, children were more in a monolingual mode with parents who did not mix languages much, whereas they were more in a bilingual mode with parents who mixed languages to a greater extent (or accepted language mixing).

In the domain of language pathology, Marty and Grosjean (1998) manipulated language mode in a study that examined spoken-language production in eight French–German aphasic bilinguals. The latter were asked to carry out a certain number of language tasks by two different experimenters—the first was a totally monolingual French speaker who knew no German, and the second was a French–German bilingual. The patients knew about the experimenters’ language background before testing. The authors found that two patients could no longer control their language mode due to their pathology but the six others adapted their language behavior to the experimenter, that is they did not mix their languages with the monolingual experimenter (or, if they did do so, it was due to stress or fatigue).

Language Mode in Different Groups of Bilinguals

Studies of language mode have been carried out in relation to different groups of bilinguals. Four examples are given here.

Highly Language-Dominant Bilinguals

It has been reported repeatedly that highly dominant bilinguals (e.g., members of a minority group who rarely use the majority language, bilingual children who are strongly dominant in one language, second language learners who use their new language, etc.) do more language mixing when speaking their weaker language than they do when using their stronger language (Lanza, 1992; Genesee, Nicoladis, & Paradis, 1995). They do not seem to be able to control language mode when speaking their weaker language in the way less dominant, or balanced, bilinguals can. They attempt to deactivate their stronger language in a monolingual environment that requires the weaker language, but the latter may simply not be developed enough to allow them to stay in a monolingual mode. Hence, their stronger language is activated and it is used to help them out (see Grosjean, 2008).

Caixeta (2003) studied this experimentally with two groups of Brazilian Portuguese–French bilinguals, one advanced and one intermediate in their knowledge of French. They were tested individually, in French, on a number of tasks by two experimenters, a French monolingual and a French–Portuguese bilingual. Caixeta found that the participants who

had an intermediary level of French produced a greater percentage of guest elements than the advanced-level participants.

Multilinguals

People who know and use three or more languages also find themselves in various language modes (see Dewaele, 2001). For example, trilinguals are in a monolingual mode when the people they are interacting with are monolingual in one of their three languages, or when they share only one language with another bilingual or multilingual. They can be in a bilingual mode if they share two of their interlocutor's languages (e.g., languages B and C) and they feel comfortable bringing one of the languages (e.g., language C) into the base language (language B). If they are with trilinguals with whom they share all their languages, then the mode can be trilingual, with one language being the most active, for some period of time at least. What is true of trilinguals is also true of quadrilinguals. For example, a quadrilingual can be in a language-B monolingual mode where language B is being used (it is the base language) and languages A, C, and D are deactivated. This same person, in another situation, can be in a quadrilingual mode where, for example, language B is the base language and languages A, C, and D are also active.

Interpreters

To understand how interpreters undertake simultaneous interpretation, we have to call upon the languages involved but also upon their input and output mechanisms (Grosjean, 1997). Interpreters have to be in a bilingual mode where both languages are active. However, one language is not more active than the other as is normally the case in the bilingual mode. Here both the source language (the language being heard) and the target language (the language being spoken) are active to the same extent as both are needed, for perception and production respectively. This is relatively rare in normal bilingual communication. This said, the processing mechanisms differ according to the level of activation. The input mechanisms of both the source and the target language are active. The reason for the activation of the source mechanism is clear but why that of the target language? There are at least three reasons. Interpreters must be able to monitor their overt speech, the clients' occasional use of the target language must be processed, and the cues of fellow interpreters must be heard. As for the output mechanisms, only that of the target language is active; the source language's mechanism is not. The reason here is straightforward: Only one language has to be output—the target language.

Deaf Bilinguals

Like hearing bilinguals, deaf bilinguals find themselves in their everyday lives at various points along the language-mode continuum (Grosjean, 2010). When they are communicating with monolinguals they restrict themselves to just one language and are therefore in a monolingual mode. They deactivate the other language and remain, as best they can, within the confines of the language being used (for example, a written form of the majority language). At other times, deaf bilinguals find themselves in a bilingual mode, that is with other bilinguals who share to some extent their two languages—sign language and the majority language—and with whom they can mix their languages. They choose a base language—usually a form of sign language (the natural sign language of the community or a signed version of the spoken language). Then, according to various momentary needs, and by means of signing, finger spelling, mouthing, and so forth, they bring in the other language in the form of code switches or borrowings.

Language Mode in Research

Several research issues are related to language mode.

Language Mode as a Confounding Variable

Since language mode is a cognitive phenomenon that has its roots in human interaction, it is present in many research projects, but mostly in a covert way. The consequence is that the data obtained are variable due to the fact that participants are probably situated at various points along the language-mode continuum. In addition, the data can be ambiguous given the frequent confound between language mode and the variable under study. A few examples are examined below.

It is rare that researchers working on interferences/transfers put their bilingual participants in a strictly monolingual mode when they obtain language samples. This is unfortunate as they invariably obtain other contact phenomena such as borrowings and code switches which may not be of any interest in the study. For example, Marian and Kaushanskaya (2007) examined a database obtained in the study of autobiographical memories in bilinguals in order to observe crosslinguistic transfer and borrowing. The first author, herself also bilingual in Russian and English, interviewed all participants individually, in English in one session, and in Russian in the other. The participants were thus, *de facto*, in an intermediate language mode (they knew the experimenter was bilingual) and they brought in various types of contact phenomena. The types of phenomena would have been different and the number much less had participants been interviewed by monolinguals of the two languages.

A much researched psycholinguistic issue concerns the presence or absence of language-selective processing in bilinguals, that is whether bilinguals call on two (or more) languages when listening to, or reading, one language only. Beauvillain and Grainger (1987), for example, found evidence for nonselective lexical access when bilinguals were shown interlexical homographs. The problem, however, is that the bilingual participants in their experiment had to be in a bilingual mode to complete the task: They had to read a context word in one language and then decide whether the next word, always in the other language, was a word or not in that language. It is no surprise, therefore, that a result indicating nonselective processing was obtained. Many other studies which have failed to control for language mode sufficiently well have been carried out since then and there is now a growing myth that processing is nonselective (see, e.g., Dijkstra & van Hell, 2003, and its discussion in Grosjean, 2008). A close examination of the research situations, the methodologies, and the stimuli used in these studies leads one to conclude that most of the time the other language was being activated either by top-down or by bottom-up factors. Hence the nonselective processing found in experiments.

Finally, in the bilingual-language-development literature, it has been proposed by some that children who acquire two languages simultaneously go through an early fusion stage in which the languages are in fact one system (one lexicon, one grammar, etc.). They then slowly differentiate their languages, by separating first their lexicons and then their grammars. Evidence for this has come from the observation of language mixing in very young bilingual children and from the fact that there is a gradual reduction of mixing as the child grows older. However, according to researchers such as Genesee (1989), many of these children are in a bilingual mode when recorded, that is, the caretakers are usually bilingual themselves and they are probably overheard using both languages, if not actually mixing their languages (see Goodz, 1989). Thus, as with the other studies mentioned above, language mode is a confounding factor that impinges on the results obtained.

Language Mode as a Control Variable

Early attempts to control for language mode used two approaches, both of them inappropriate. The first was to put the participants in a “language set” (called by some a “language mode”) by giving them instructions in one language, getting them to carry out preliminary tasks in that language, occasionally presenting reminders in that language, and so forth. What this does is activate a particular base language (the variable depicted on the vertical axis in Figure 1), but it does not guarantee a particular position on the monolingual–bilingual-mode continuum. A second inappropriate approach, which has been used a lot with bilingual children, second language learners, and aphasic or demented patients, has been to hide the experimenter’s or interviewer’s bilingualism. This is a very dangerous strategy as subtle cues such as facial expression and body language can give away the interlocutor’s comprehension of the other language. In addition, it will not prevent occasional slips such as responding in the “wrong” language or showing in one’s response that what has been said in that language has been understood. All this will simply move the participant into a bilingual mode and, once again, make language mode a confounding variable. (For a discussion of approaches to use to put participants in a monolingual mode as much as possible, see Grosjean, 2008.)

Modeling

Few models of bilingual language processing and language acquisition have taken into account language mode as of yet. For example, De Bot’s (1992) classic model of bilingual language production does not give a clear account of how language choice takes place (i.e., how the base language is chosen), how the language mode is set, and the impact it has on processing. Similarly, in the bilingual interactive activation (BIA) model (Dijkstra & van Heuven, 1998) one language is normally deactivated during the word-recognition process by means of top-down inhibition from the other language node and lateral inter-language word-level inhibition. This will produce satisfactory results for word recognition in the monolingual mode but it will be less than optimal when mixed language is being perceived. In the latter case, it would be better if both languages were active with one more active than the other. To our knowledge, the only computational model of word recognition that simulates language mode is the Léwy and Grosjean BIMOLA model (see Grosjean, 2008). Both the base-language setting (a discrete value) and the language-mode setting (a continuous value) can be set prior to simulation in this model.

Conclusion

Language mode helps us understand how bilinguals use their languages, separately or together, in everyday life, and it accounts for many findings in the research literature. It is invariably present as an independent, control, or confounding variable and hence needs to be heeded at all times.

Many aspects of language mode have to be studied further. For example, it will be important to isolate the factors that influence a particular mode, determine their importance, and ascertain how they interact with one another to activate or deactivate the bilingual’s languages, and hence change the bilingual’s position on the language-mode continuum. The maximum movement possible on the continuum will also have to be examined for various types of bilinguals. Another issue concerns the resting mode individuals find themselves in when there is no language activity taking place. Finally, language mode in multilingual situations will have to be studied further.

SEE ALSO: Bilingualism and Bilinguality; Bilingualism and Cognition; Code Switching; Lexical Borrowing; Lexical Transfer and First Language Effects; Speech Perception

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Suggested Readings

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