

BILINGUALISM IN CHILDREN: AN INTRODUCTION

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This article attempts at formulating an introduction and "state of the art" on bilingualism in young children. Therefore a short definition of both language acquisition and bilingualism is formulated. Although early bilingualism has numerous variations, the author focuses on three common types: 1. the situation where standard language and dialect are involved, a common but "soft" type of bilingualism; 2. the simultaneous or family bilingualism; 3. early successive bilingualism. General conclusions focus on the necessity of a differentiated approach in answering general or individual questions about early bilingualism.

Introduction

Many practical questions arise when children are raised bilingually. Is it good or bad? At what age should the education begin? Where should it start: at home or in school? The number of young children confronted with bilingualism is certainly increasing in our society. In Europe, there is greater mobility and an increase in linguistically-mixed marriages. Therefore, a growing number of handbooks is being published (e.g., Arnberg, 1987; Harding & Riley, 1986), and a magazine on bilingual child-raising for parents has been brought to the market (G. Saunders publishes *The Bilingual Family Newsletter* since 1984). Despite a large body of research, it is not simple to give a synthesis about early bilingualism. This phenomenon involves linguistic, sociological, cultural, geographical, as well as psychological and educational factors. The majority of studies rarely if ever provide an integrated vision. A linguist describes a case study in detail, and an education expert examines the effects of a bicultural education program in school or the professional choices of immigrant children (e.g., De Houwer, 1987; Leman, 1997). In general, these authors do not refer to the work of each other. Moreover, in many texts of bilingualism in young children, a polemic tone emerges, because the subject is imbedded in a political and/or social discussion.

There is yet another reason why writing a synthesis on early bilingualism is a precarious task: Many readers tend to test directly what is written against their own personal experiences in second-language acquisition. However, there are so many different "second-language-acquisition situations" that chances are small that each individual finds his/her experiences confirmed. Furthermore, many readers are looking for an answer to a number of very

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concrete questions, such as "Should I hire that very nice non-native babysitter or should I not?", "Should I send my eight-year-old to a language camp?", or "Should I look for an English kindergarten during our two-year stay abroad?" To all these situational and practical questions, there are no clear-cut answers, because a lot of factors are involved in second-language acquisition. Second-language acquisition by a young child is not a uniform process like fine-motoric development or perceptive development which can be described in a fairly nomothetic way; there is not one but many, many kinds of early bilingualism.

In the remainder of this article, I will discuss some of various kinds of early bilingualism. One thing all these variations of bilingualism have in common is that they confront us, as does a monolingual child, with the questions: Why do young children acquire such a complicated system as language (and even several languages) apparently effortlessly? How and why does a child acquire language?

Language Acquisition

Virtually nobody still adheres the thesis that language learning is a form of behavioral conditioning (Skinner, 1957): The acquisition is too complex in relation to the young age of the child. Moreover, the language system is not simply taken over; children deal with language in a creative way. They form words like *housebridge* (=viaduct), *sandwichbed* (=couchbed), or they talk of *upmolishing* the house and *outhalating* (in analogy with demolish and inhale). They learn rules, as becomes evident from the overgeneralisations they make. Examples of these are: I have two *foots*, two *gooses*, I have *swimmed*, I have *sleeped*. Because of the great sensitivity to rules in the language-acquisition process, many researchers agree with the position of the linguist Noam Chomsky that the child, as a specimen of the human race, enters the world with an inborn ability to acquire language, the Language Acquisition Device (e.g., Pinker, 1994). The child seems to have at its disposal a number of basic notions regarding grammar, which it tests, as it were, against the language that is offered. Since Chomsky's initial writings, it has been acknowledged, however, that the language input for children is much more than a mere background. It contains specific characteristics, that explicitly help the child to discover the structural principles of the language. In any event, there is agreement that the language input to the child, in addition to an inborn capacity, plays a crucial role in the language acquisition process. Otherwise, how could it be that the language that the child hears in the environment (Dutch, Spanish, Finnish) also becomes the language of the child itself, its mother tongue.

Definition and Types of Bilingualism

The term *mother tongue* stands for the language that is used in the primary socialization of the child, and may be called a textbook example of sexist language: Is there no father tongue or do fathers not speak to their children?¹ Often the father tongue is the same as the mother tongue, but not always. There is also the language of the geographic environment; this can be one of the two parental languages but not necessarily. For example, an English-speaker marries a Spanish-speaker, and they have a child. The child lives in London (environmental language: English) or in Paris (environmental language: French). The same family can also live in a bilingual or mixed-language city/ neighbourhood, for example, in Brussels. Moreover, the child may soon go to a day-care center or kindergarten, or one hires a cheap child-minder (perhaps a Polish lady). Thus possibilities aplenty and, in these examples, divorce, second-marriage, and many-move situations are intentionally not included. In comparison with the situation of the baby who has a Spanish-speaking mother, an English-speaking father, a Polish-speaking childminder and who lives in a Dutch/French-speaking neighbourhood, the situation where the father and the mother speak English and the child goes to a French-speaking school almost becomes very straightforward. And absolutely straightforward is the situation of a child who learns the Viennese dialect from its father and mother and then, from kindergarten on, has to learn Standard German. Nevertheless, this situation is "multilingual" too, in comparison with that of the child that speaks Standard German both at home and in school.

In writings, the estimates of the number of bilingual people on earth range from 90% to 10%. Although many of these figures are inspired by wishful thinking (to demonstrate that bilingualism is a deviation or that monolingualism is primitive), at the same time they all are correct, because the number of bilinguals depends on how bilingualism is defined². Indeed, bilingualism is a loose concept that covers very many quantitative variants, and within each variant there are also many qualitative nuances.

Obviously, one will arrive at very high percentages of bilingual people if everyone who has to do with the duality standard language vs. dialect or who speaks a little bit of "tourist English", is considered bilingual. As soon as one starts to make restrictions with regard to the extent and the quality of bilingualism, the numbers drop considerably, certainly if perfectly balanced bilingualism is the criterion. Completely balanced bilingualism assumes that one can use both

¹ Jespersen (1922), however, writes that: "If men had to attend to their children ... they would never use so many words - but in that case the child would scarcely learn to understand and talk as soon as it does when it is cared for by women."

² Harding and Riley (1986) and Wölck (1987), for instance, claim that "half of the world population" is bilingual. Garcia (1983) estimates the number even higher.

languages with equal fluency for all possible subjects, in every conceivable situation. This is an ideal many bilinguals and professionals (e.g., interpreters) strive for, but, in general, it is approached only to some degree. For example, a person who speaks Bengali at home and teaches physics at a Canadian university, will probably not be able to discuss low temperature as well in Bengali or to name all spices of Bengali cooking in English. And even with perfectly balanced bilinguals, there remain preferred languages for some private areas, such as dreaming, cursing, or spontaneous money counting – something that is guaranteed to unmask the foreign spy in movies.

Thus, we need a working definition of bilingualism. One that is often used is Kessler's (1984): "Someone who is capable of using two languages frequently and easily in all domains of common activities". If bilingualism is an arbitrarily delineated concept, then it is all the more difficult to define what early bilingualism involves. Sometimes one speaks of early bilingualism when the second language enters before the age of 5-6 or sometimes the age of 9-10, but usually the age limit is placed at 3 years³.

A very special language acquisition process is experienced by children who are adopted by a family of another language. These children leave their first mother tongue completely behind and, as it were, acquire a new mother tongue (e.g. Schaerlaekens et al., 1988). Also, the simultaneous existence of sign language and spoken language among deaf children is a special form of bilingualism that will not be considered here.

Three common types of early bilingualism will be discussed below: standard language vs. dialect, simultaneous bilingualism (from the beginning, within the primary child-raising environment), and successive bilingualism (a non-family language that is presented later on). There are, of course, many other types that can be distinguished⁴.

³ Because of the large tempo differences between children, it would be better not to base oneself on the chronological age of the child. Some 2-year-olds exceed by far the language skills of the average 3-year-old, and some 3-year-olds are only beginning to talk. It would be more logical to proceed from the achieved level in the mother tongue: prelingual/early lingual/differentiation phase/completion phase. On tempo differences and on the process of initial language acquisition in general, see Schaerlaekens and Gillis (1999).

⁴ Other criteria for distinguishing types of bilingualism are the degree of mastery of the second language, the balance between receptive, productive, oral and/or written language, the relationship among the different languages, and acquisition in a natural versus a school environment. The terms additive and subtractive bilingualism are often used in sociolinguistics and refer to whether or not progression in the original mother tongue is harmed by the second language. For a description of these terms, see Appel & Muysken (1987), and Cummins (1981).

Standard Language and Dialect

The situation in which a standard language and a dialect coexist (e.g. Viennese dialect/Standard German) is of a very different nature than a situation in which two different languages like Korean and English are involved. The differences between a dialect and a standard language are much smaller and primarily involve the sound system (phonology), to a lesser extent the vocabulary, and to an even lesser extent the grammar. Still, they can result in difficulties, for instance when a child is learning to read. Reading in an alphabetical language involves making the connections between the letters on the page and the sounds of the words that are represented. Because reading happens in the standard language, children who have knowledge of their dialect only, will experience a disadvantage. This disadvantage is known in educational circles as the school language vs. home language problem and should not be reduced to a trifle, although it has fewer far-reaching implications than the situation where two different languages are involved (this problem is discussed in detail in a publication of the Dutch Ministry of Education and Science, 1978). Another situation in which the distinction between dialect and standard language may matter, has to do with projects in which kindergarten classes are immersed in a foreign language (such projects are proposed in bilingual countries like Belgium, Switzerland, and frequently applied in Canada). One should realize that in these classes the children who speak a dialect at home, are already in a "soft bilingual" situation. In addition, the language at home is often linked to the socio-economic status of the family: Disadvantaged children rarely speak the standard language at home.

In sociolinguistics, it has further been shown that the language, be it standard language or dialect, is used differently in different socio-economic classes. Bernstein (1964) speaks of *reduced code* versus *elaborated code*. The latter is a rich code based on abstract reasoning, that is mostly used in higher social classes. The former is a more concrete language that makes less use of abstract terms and reasoning; it is found predominantly in families of lower socio-economic status. According to some authors, the difference in home language is largely responsible for the poorer school performances of children from lower socio-economic classes, because they are less prepared for the formal education that is used in the school system (for a current evaluation of the theory, see Nijmeegse Werkgroep Taaldidactiek, 1992; see also Beheydt, 1979; Snow et al., 1976).

Simultaneous or Family Bilingualism

Introduction

One type of bilingualism that can clearly be delineated is that in which the child grows up with two "mother/father tongues". The mother and the father consistently speak their own language to the child⁵. To achieve balanced bilingualism, the father and the mother would ideally have to spend the same amount of time with the child, speak as much to the child, and do so about the same subjects. This idealized fifty-fifty situation rarely occurs. There are no exact norms about how large the deviation can be. Often 1/3 exposure time for one language is considered as the extreme limit, but research with hearing babies who learn sign language from their deaf parents, has shown that some children learn spoken English sufficiently as soon as they interact 5 hours a week with an English-speaking adult, admittedly supplemented with 2 hours television watching a day (Shiff-Myers, 1988).

Let us first consider the question: Can a child learn two mother tongues? The answer is clearly yes. It regularly occurs that children, raised in two languages, become mother-tongue users of more than one language. Many people know such children and adults, and there are numerous case studies of the phenomenon in the literature (the oldest and best-known case study is that of Leopold (1954) about his daughter Hildegard, who was raised in English and German; for a review of case studies, see De Houwer, 1993). Linguists in general agree that a child who is capable of learning one language is, in principle, also capable of learning two languages. But there is less agreement about the explanatory model that lies at the basis of the phenomenon. There are two broad views: Some think that from the outset there are two separate language systems in the user, whereas others argue that children start with one global system which differentiates later on.

One-Language System

The adherents of the one-language system hypothesis (e.g., Klausen & Hayashi, 1990; Leopold, 1954; Redlinger & Park, 1980; Vihman, 1985)

⁵ This principle, one person-one language, is also called Grammont's Law, and is often found in popular pedagogical writings, such as *Brieven aan jonge ouders*, published by the *Bond voor Grote en Jonge Gezinnen* (1978, no. 3): "... there are absolutely no objections for the child to hear two languages at the same time. As long as the same person always speaks the same language, there are no difficulties. On the contrary. Then, the child will learn simultaneously the language of the one and that of the other. We know many examples in which this situation only had favorable 'linguistic' outcomes."

maintain that there exists an initial interlanguage from which the child progressively and systematically separates the different languages. Swain (1972) uses the term "bilingualism as a first language" to describe this position. The differentiation would take place in several stages. By way of example, these stages will be summarized as they are described by Taeschner (1983; Volterra & Taeschner, 1978).

In the first stage, there is a single lexical system that contains words of both languages. The child uses words from both languages but without equivalents. For example, if the child uses *chaise* and *Tisch*, it will not use the equivalents of the other language *Stuhl* and *table* (German/French). The child acquires, as it were, a single lexicon with words from both languages. The total vocabulary from the two languages is, added together, not much larger than that of a monolingual child. The average growth in vocabulary is also the same for both types of children. Exceptionally, the bilingual child may form words by combining the phonological representations of the two languages, such as *shot* by combining *hot* and *chaud* (English/French), or *kats* as a combination of *katt* and *kass* (Swedish/Estonian). In this stage, adults speak in their own mother tongue to the child, but the child uses both languages for all conversational partners. The adult, even when s/he does not know the language of the other, generally understands what the child is saying. This process resembles the fact that parents of monolingual children also understand what their child of 12-18 months is saying, even though the monolingual child uses very idiographic words. Something like *tatisch* (sandwich) or *tootaste* (toothpaste) is, in the end, just as cryptic as *stola* (table) and *mleko* (milk) (Polish/English). In this initial phase, there is a parallel between the situation of a monolingual child and the situation of a bilingual child: neither of them speaks perfectly, but their parents try to figure out from the context what they want to communicate. This period can be compared with the one-word sentence phase in ordinary language acquisition.

In the second stage, the child would shift to two lexical systems but still use one grammar. This stage is comparable to the two-word-sentence phase in ordinary language acquisition. The child produces sentences like *chair sitzen*, *want plätzchen*, *daddy schlafen*, *dog draussen* (English/German). The child is now adapting itself to the conversational partner by speaking as much as possible in the appropriate language. Although at first sight, it appears as if the child links a particular language to a particular person, this is not the case. If the conversational partner changes language, the child will change language too. In the third stage, which starts around the age of three, the child uses two lexical systems and also separates two grammars. During the separation process, it often mixes the systems. This is called interference. The child produces sentences like: *kabouter pêcht* (the dwarf fishes) (Dutch/French) and *I am tekening* (I am drawing), *ik ben aan 't walken* (I am walking), *als ik travel*,

travel ik altijd naar Europe (when I travel, I always travel to Europe) (English/Dutch), *Putzen Zähne con jabon* (clean teeth with soap) (German/Spanish), *I ask him que yo voy a casa* (I ask him if I am going home) (English/Spanish). This is an important and intensive language-learning period for the child. It must build up two grammatical system and separate both languages. Consistency in the language behavior of the adult, therefore, is important if one wishes the child to remain bilingual. Moreover, the child itself now begins to adhere to the one person/one language principle, and it protests if the system is disrupted. It can become obstinate and intolerant when adults change languages, and in this way indicates that it considers the conversational partner's mother tongue as a fixed characteristic of that person. Here, too, it is not difficult to see a parallel with monolingual language acquisition: Around this age, the monolingual child turns to rules in the language and scorns exceptions. It likes to say *ik loopte* (I runned), *twee schippen* (two ships), and *goeder* (gooder), because this all sounds much more logical in Dutch than *ik liep* (I ran), *twee schepen*, and *beter* (better).

During the third stage, interference errors decrease and the bilingual child develops competence in both languages. Only when the competence has reached a certain point, is the child prepared to unlink language and person again. This usually happens between the age of five and seven.

Two-Language Systems

Other authors defend the idea that bilingual children are capable of separating the two language systems from the very beginning (e.g., De Houwer, 1990; Koehn & Müller, 1990; Meisel, 1989; Pfaff, 1990). They argue that language mixing is not an argument against the existence of two lexical systems, but that borrowing from the other lexical system is an extension of incorrect word usage that also occurs in monolingual children (Genesee, 1988, 1992). A young monolingual child that does not have the word *zebra* in its vocabulary may call such an animal *a horse*. Why, then, would a bilingual child that does not yet have *horse* in its vocabulary, not call this animal *un cheval*? The latter word just happens to be in its vocabulary because walking and looking at horses is an activity mostly done in the company of the father, who speaks French, and not in the company of the mother who speaks English. Hayashi (1992), for instance, explains the non-equivalence in the vocabulary of children primarily on the basis of language input.

What about expressions in which both languages are mixed? This, too, can be interpreted in a different way. To do so, it is instructive to listen carefully to the adults' language input. In principle, parents should consistently react in one language when their child is in the mixing period, but in practice they use a

mixture of at least five strategies (Lanza, 1992). Parents sometimes pretend they do not understand the other language, so that the child is obliged to say everything in one language (this may be difficult to maintain if at the same time, the parents are communicating with each other). At other times, parents may pretend they do not understand the other language very well and ask for clarification in their own language. Parents can also repeat the word in the correct language or simply ignore the mixing. But the most interesting observation is that most parents themselves change their language into the language the child is speaking. In other words, they do code switching as well. Parents dose these strategies differently, and even parents who contend they never switch, still do it in reality (Goodz, Legare, & Bilodeau, 1987; Idiazabal, 1984; Kielhöfer, 1987; Lanza, 1990). Again, one can compare this with parents of monolingual children who swear they never use baby talk with their children, but in reality do this more often than they imagine. Both phenomena illustrate that parents want, first and foremost, to communicate with their children rather than act as language teachers.

Conclusion Simultaneous Bilingualism

Thus far, I've only talked about the parental languages. One should bear in mind, however, that the environmental language also plays an important role. In practice, it is extremely difficult to keep the language input permanently balanced, if the environmental language is the same as one of the two home languages. As the child grows older, the environmental language often plays a decisive role, so that it becomes the dominant language of the family and the child. The shattering of the fifty-fifty situation often occurs when the child goes to school: The child brings friends at home and, in a natural way, continues the language of the school. Also, the child learns to read and write in the school language, but rarely in the home language (which remains a spoken language). Families must heavily "swim against the current" to sustain their initial intentions of achieving balanced bilingualism. In practice, it often happens that the child progresses more rapidly in the environmental language than in the other language. This can lead to problems when the school language turns out not to be the dominant language but the "disadvantaged language".

Linguists, therefore, agree that the acquisition of two mother tongues is in principle possible, but that in most real-life situations, child raising by parents who speak different languages, does not lead to perfectly balanced bilingualism. Almost all case studies of children who end up with problem-free bilingualism, have been carried out with children of the authors themselves or with children of relatives of the authors. The children always were upper- or middle-class children, who constituted a very select group in a very stimulating family

environment. Moreover, they generally were first-born children, for whom the environmental language can be controlled relatively better than for the following children.

In language pathology, there is a group of children with serious isolated language disturbances who are called Specific Language Impaired or SLI children. The hypothesis that SLI is familial and maybe genetically determined is gaining popularity. Researchers increasingly consider the possibility of an inborn language weakness (Bishop, 1992; Haynes & Naidoo, 1991; Pembrey, 1992; Tallal, Ross, & Curtiss, 1989; Tomblin, 1989). Therefore, it seems logical that one should consider the possibility of a familial or genetically determined positive talent for language. If this hypothesis is confirmed, then linguists and their children constitute a very suspect sample, being a too select group to generalize conclusions to the entire population.

What is certain, is that sustained family bilingualism requires special effort on the part of the parents. Otherwise, what began as balanced family bilingualism very rapidly evolves into bilingualism with a dominant language. Sustained balanced family bilingualism is found only in highly motivated families or in families where the parents are more preoccupied with language than is usual; here, too, linguists and their children constitute a select population. Moreover, it can safely be assumed that the language within these families is of a high level. As an extension of the Bernstein hypothesis concerning the use of reduced and elaborated code in the various social classes, one may argue that sustained separate bilingualism occurs more in combination with the elaborated code and less in combination with the reduced code.

Successive Bilingualism

Introduction

Early successive bilingualism refers to a situation in which a child first hears one language (L1), and later, usually between the age of three and ten, is confronted with a second language (L2)⁶. Again, the notion of successive bilingualism refers to a heterogeneous group of situations. In general, the second language can be introduced in two ways: in a natural environment or in a formal, academic environment. Both forms can coincide as well.

Children of immigrants or refugees often become bilingual because of the geographic environment. They go to a kindergarten or a school where a

⁶ Because of the great tempo differences between children, it is actually not possible to indicate a lowest age limit. Indeed, a 3-year-old who is a somewhat slower language acquirer comes very close to a simultaneous language acquirer.

different language is spoken, and are expected to pick up the language without much structured help: the swim-or-sink method. The teacher of an Albanian refugee child does not know a word of Albanian and cannot help the child to translate words into or out of Albanian. Obviously, this swim-or-sink method can give rise to considerable practical and emotional problems. For example, a child may ask to go to the bathroom but because the teacher does not understand what is asked, the child wets its pants in front of the entire group. Often, the language shock coincides with a culture shock, as occurs with the transition from an agrarian to an urban environment, from an African to a European culture. Moreover, many refugee children have recently suffered traumatic experiences. Chances that all of this will result in an emotionally determined "silent period" are very real.

A second language may also be learned by a directed, formal process, when the language is systematically taught in school. For example, many pupils in Hungarian kindergartens receive "German lessons". A special form of language teaching in school consists of immersion programs, which have become widely known due to their application in Canada. In such immersion programs a complete kindergarten class, consisting of children whose home language is English, may be run in French. Although this seems quite drastic, it is still a great deal different from the sink-or-swim method, because the Canadian kindergarten teacher is bilingual. She understands the initial English responses and reactions, and reacts appropriately in the new school language by reformulating the response in French. The language input, therefore, is very didactic and not comparable to the language input with which our Albanian refugee child is confronted.

Very often, a mixed form of natural and directed acquisition occurs. Kindergartens that have large groups of immigrant children provide special "language hours" for them. Most of the time, the child is immersed in the new language, but regularly the unknown language is offered in a more structured way: during language classes, in small groups, or as individual speech therapy, the latter happens often in Dutch Kindergartens in Brussels. Usually, more learning situations are created, the older the child is. Although there are no reasons to think that natural acquisition does not occur in adults, hardly any instruction is provided for adult immigrants.

Successive Versus Simultaneous

No matter how diverse the situations can be, there remains an essential difference between simultaneous and successive bilingualism. The acquisition of a second language on top of a first language is fundamentally different from the simultaneous acquisition of two languages. In successive bilingualism, a lot

of language knowledge is already present. A 3-year-old knows much more about language than a new-born. He knows, for instance, that he can signify something with a word (symbol function), that he can point to, ask for, or obtain things with words (pragmatic function). The older the child is, the more it knows about language: It can combine words to make sentences (syntax), it can talk about things that are not present, it can tell stories. In the case of successive second-language learning, whether this takes place naturally or through instruction, one builds on the foundations of the first language. All languages, no matter how different they may seem (for example, Japanese, Dutch, sign language), have a great deal in common, much more than is generally thought (this is the reason why researchers speak of language universals). Thus, for example, every language has a system to indicate the various conversational partners. In some languages, this is done by means of personal pronouns (e.g., English, German, French); in other languages, this is done by verb inflections (e.g., Latin, Polish); in sign language, it is the hand direction. Young children use a proper-noun system for a long time. They speak of themselves as *John eat* and *John sleep*, and they say *Daddy come* and *Mamma tell* before they discover that they can use the words *I*, *he*, *she*. Once the idea of the referential system is acquired, the child grasps it immediately in the new language and thus skips the period of the proper-noun system.

In this regard, reference can be made to the interdependence or dependence hypothesis of the Canadian researcher Jim Cummins (1979; Cummins & Swain, 1986). The Cummins hypothesis can be summarized as follows: When there is enough motivation and sufficient contact opportunities with the second language, the second language can call upon the level of development in the first language. The level of the mother tongue thus contributes to the level of the second language. This implies that good education in the own language and culture is a better preparation for mastering the second language than plain immersion. The Cummins hypothesis has resulted in an increased emphasis on education of the own language and culture, which is called bicultural education.

Skill in one language is carried over to the other, and there is some truth in the saying that the more languages you know, the easier it is to learn one. English speakers who have learned what cases are in one language (in Latin, perhaps), advance more rapidly in the acquisition of another language with cases (like Russian) than persons who have yet to acquire a notion of cases. Likewise, it has been demonstrated that the acquisition of the article system in English is easier for speakers whose mother tongue has a comparable article system, than for speakers whose mother tongue does not include articles (Frijn & de Haan, 1990). If one already knows one or more languages, chances are higher that one is familiar with some mechanisms in the new language. This advantage is accompanied by a relatively minor disadvantage, because the new language learner may too readily and erroneously transfer a mechanism from

one language to the other. So, a beginning learner may use expressions like *two shoeen* (two shoes), *klein houschen* (small house), *I have this apple eaten* (I have eaten this apple) (German/English), or *a house pink* (French/English). These are the notorious interference phenomena. Erroneous transfer of rules from the mother tongue to the new language happens for everyone who learns a new language. The younger the child, the more naturally and unconsciously these mixtures are made, however. This is partly because older language learners find themselves more often in an instruction situation where these mixtures are immediately corrected. A young child is more likely to be in a natural acquisition situation that is characterized by more tolerance for errors.

People tend to focus on interference errors, because they are striking. This is one of the reasons why many have the impression that successive bilingualism is inferior to simultaneous bilingualism. The advantages of successive bilingualism are less taken into account, because the speed with which the learner advances and the use s/he can make of existing skills are less visible.

Conclusion Successive Bilingualism

As indicated above, many people are convinced that simultaneous bilingualism in a bilingual family is superior to successive bilingualism. But questions of how fast successive language learning advances and how good the final product is, cannot be answered unequivocally, as long as both groups of learners are loosely defined. This is especially true for successive bilingualism, which covers a huge range of different situations. The level of bilingualism a successive language learner achieves, depends on many different factors (some 3000 according to Mackey, 1972). This explains why very divergent results have been reported in various studies, ranging from very negative to very positive. Differences in socio-economic context, psycho-social and political factors, contact time, intelligence, motivation, language status, and teaching methods make groups of successive language acquirers virtually incomparable. Only some of the factors that contribute to success, can be discussed here.

Researchers virtually agree that the motivation and the attitude towards the new language are the most critical factors. Second-language acquisition and learning must be imbedded in a positive appreciation of the language and the culture it belongs to. Another important factor is the time one devotes to the new language both within immersion and within a formal teaching situation. The contact time available for second-language acquisition is usually greater for children than for adults (e.g., Vermeer, 1984). This factor probably to a great extent accounts for the popular notion that children learn languages easily whereas adults have difficulty. Adults generally have other things on their minds than playful language interactions. Thus, it is not very surprising when

a Pakistani couple living for two years in Amsterdam have a 4-year-old daughter who speaks fluent Dutch while the parents have hardly learned anything. The father works all day in a laboratory, where everyone talks English to him, and the mother may be doing the house-keeping, a profession in which there is little conversation. The child, however, spends the entire school day among Dutch-speaking children and has ample opportunity to converse.

Usually, the question how fast a child can learn a second language, is asked with an eye on the language in school and the chances of school success. So, this may be the place for a more pragmatical answer. In this respect, Cummins' (1979; Cummins & Swain, 1986) distinction between basic interpersonal communication versus cognitive and academic language is important. Basic interpersonal communication refers to the language that is needed for everyday activities and social contacts; cognitive and academic language refers to both written and spoken language required for school activities. Cummins argues that sufficient language for basic interpersonal communication can be acquired by non-native children in about 2 years time. This will allow them to function adequately in everyday life and to perform practical tasks, but it does not yet mean that they can keep up with school tasks for which cognitive and academic linguistic skills are needed. Cummins estimates that the average child needs 5 to 7 years to equal the level of its peer-group of mother-tongue speakers.

When one compares the results of simultaneous and successive bilingualism, it is often mentioned that the pronunciation and intonation of the simultaneous second-language acquirers cannot be equalled. This phenomenon is ascribed to the greater neuro-motoric plasticity of the brain and the articulation organs of young children (e.g. Patkowski, 1980). Another aspect of simultaneous bilingualism is that children learn languages rapidly but also forget them rapidly if the language input is not continued. Thus, many parents who lived with their young children in America and proudly noted that their 5-year-old spoke fluent English, are dismayed that all knowledge is virtually forgotten when the child starts to learn English in school at the age of 14.

Conclusions

Let us go back to the young child that learns a language. What we see, is a striking process that can be explained only in part by science. Children who are raised monolingually to the age of ten can be considered as people who have perfect command of their mother tongue. This does not mean that they will never make mistakes in terms of their own language, but their linguistic behavior can be considered the behavior of experts; they are native speakers. Children who have two languages as their mother tongue (the simultaneous

situation) can also become persons who perfectly master both languages and are considered experts in both languages. The requirement, however, is that they have received a sustained, balanced bilingual education, a condition that is less easy to meet than is generally assumed. Young, successive language acquirers form a heterogeneous group; some of them will undoubtedly become not only experts in their first language, but also achieve a very high degree of perfection in their second language. Karniol (1990), for instance, argues that immersion at kindergarten age provides more rapid results than simultaneous second-language acquisition. The level successive language acquirers finally achieve, depends on a large number of factors, of which age is not the most important. Children after the age of 10 and adults, even 50-year-olds can learn foreign languages very well, although their pronunciation and intonation may be more marked.

Monolingual children show large interindividual differences in speed and quality of language acquisition: There are slow, moderate, rapid, and particularly language-gifted children. The situation is the same for bilingual children; some children in this group may proceed slowly, but in the end they, too, meet the objective (Koehn & Müller, 1990). This does not preclude that both in the monolingual and in the bilingual group, some children with significant cognitive, emotional, or medical problems are insufficiently able to acquire language, either a first or a second language. In all fairness, it should be said that the group of "dropouts because of relative language weakness" will probably be somewhat larger among bilingually than among monolingually raised children. Although the analogy is far from perfect, most people can learn to operate text processors such as WordPerfect and MS Word (even if they are no computer freaks), but things will not be easier if both software packages must be acquired at the same time.

When one opts for bilingual education for a young child, a number of factors are known, such as the mother (or father) tongue and the environmental language. But these factors can change (the family moves, the work situation changes, the family situation changes, war, etc.). Other factors are unknown and will remain so for some time: A new-born baby does not come with a label indicating its intelligence, social skills, or learning capacities. In most children, these factors become clear only after the age of one or two, or even as late as five or six years, when the school starts. In this regard, the option of bilingual education always entails a risk. Few parents can imagine that the apple of their eye could belong to a problem group. Nevertheless, the percentages of children, even monolingual children, with learning problems (for example, dyslexia) and school problems are considerable⁷. In any case, bilingualism is best

⁷ Coen-Gelders et al. (1977) estimate the number of Dutch-speaking children with learning problems at 25%. Ruijsenaars et al. (1993) also used this figure.

avoided if one of the following factors is present: a form of hearing impairment, weak mental capacities, autistic behavior, or syndromes that frequently entail learning difficulties.

A bilingual education is often not really a choice. Many parents do not have the luxury of choosing the linguistic environment in which they want to live. Young families are confronted with foreign studies and training periods, job assignments, and changing residences. And family bilingualism is not always a real choice either. One partner is not always in sufficient command of the other's language to raise a child in it. Moreover, language skills and language mastery are, of course, not the only educational objectives and thus not the only factor that must be kept in mind during the education of young children. No child can be withheld from contact with its parents or other family members because of language factors. For example, one cannot remove a deaf child from its natural family to have it raised by sign-language users. No child can be deprived of contact and play with its peers because they happen to speak Macedonian or Swahili and the parents see no promising social or economic prospects in this language.

In other cases, there are deliberate choices: One opts for immersion, for other-language education, or intentionally for family bilingualism. There are no fundamental objections against early bilingualism. On the contrary, there are lots of indications that two languages can be learned well at an early age, because the child has plenty of learning time then. The early confrontation with two language systems also make children think: Both the metalinguistic skills and the general cognitive development are thought to be stimulated by the confrontation with two languages (Clyne, 1987; Hakuta & Diaz, 1985). As for cognitive skills, bilingual children equal monolinguals, although it is difficult to exclude auto-selection of the test groups in these studies (e.g., McLaughlin, 1984; Vijt, 1993). In situations where parents can choose, bilingual education is less appropriate for "weaker siblings" or children with language/learning problems. This also accounts for the great divergences in the results of bilingual education: Immersion education in Canada is enormously successful in groups of well-motivated, middle-class children. However, there is a disturbing lack of learning success with children from language minorities and with children from lower social classes.

For all young bilinguals, the choice of school language is a special problem. This choice is preferentially based on a sufficiently developed language for basic interpersonal communication and for cognitive and academic purposes. In addition, the phonological aspect must not be underestimated. In alphabetical scripts, the linkage between sounds and letters forms the basis for reading and writing. Therefore, one of the few general recommendations that can be given is that education in another language must start a few years before or a few years after the first year of primary school. Command of the written language usually

follows command of the spoken language. This is not only the case in the history of humanity but also applies for the developing individual. Sufficient command of the spoken language is a starting skill that is required in all modern reading methods; this includes mastery of the phonological system and mastery of the basic vocabulary. Thus, it is best not to learn to read and write in a language that one does not or not sufficiently master, although there is, as always, a group of super-gifted children for whom this does not apply.

Bilingualism involves a lot of language input from the environment, which generally is vastly underestimated. A simple truth is that the two languages have to be presented to the child as often and in as many different ways as possible. One learns language by interaction, by using the language, by speaking a lot. Parents who are by nature silent and live in an environment with little talk, are not advised to start bilingual education, because one must do his/her best to talk somewhat more to the child, to play more games, and to tell more stories. Bilingual child raising requires – this is becoming monotonous – sustained efforts from the parents⁸.

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⁸ I will not go into early multilingualism in this article. There is not much more in the literature on the subject except a few good evolutionary case studies, such as A. Stavans (1990). Logically, we can assume that chances of a child becoming simultaneously or successively trilingual, quadrilingual, or multilingual will decline and will be related very closely to the factors I have already mentioned, such as a well structured and measured language input, intelligence, and social skills.

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