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Faces of Bilingualism

Picture a bilingual child. What languages does this child speak? What kind of neighborhood does she live in? What are the educational arrangements that either support or demand bilingualism? Are any of the child's languages spoken in the community outside the home? What were the circumstances that led to her bilingualism? How long has the child been living in the present country? By changing even a single answer to this small sample of questions, the child being described is importantly different from one who would have elicited a different answer. Is there a common experience that unites this diversity of children? Is this common experience reflected in some deeply rooted element of their intellectual development? Does bilingualism in early childhood influence the nature of children's cognitive development?

These questions presuppose a more basic issue: How do we decide who is bilingual? We all know shreds of other languages although we would hesitate to include those imperfect systems as evidence for our bilingualism. Children's knowledge of any language is incomplete compared with that of an adult. At what point does a child have enough command of two languages to be declared bilingual? In part, the answer to that depends on how the two languages were learned and to what purposes they are put. But that does not solve the problem of deciding what is entailed by partial knowledge of one language for a child whose linguistic knowledge of *any* language is partial at best.

Experiencing Bilingualism

For adults, the idea of an "uncontaminated" monolingual is probably a fiction. At the lowest levels of knowledge and awareness, exposure to fragments of other languages is unavoidable. No language is immune to

intrusion from the barrage of words and phrases that rise out of one language and through their universal appeal deposit themselves squarely into the lexicons of another. The phenomenon can reflect cultural prestige (*blasé, rendezvous*), the seat of power for commerce (*computer, Big Mac*), the lineage to intellectual tradition (*Zeitgeist, Angst*), or the fascination with a slightly exotic culture (*chutzpah, schlep*). But we would resist describing the speakers who incorporate these terms into their conversations as bilingual. Often, many of these borrowed words are not even recognized for their linguistic origins.

More language knowledge surely follows from the ubiquitous foreign language requirements that most of us were required to complete at some point in our lives. This experience may have left us with many things, but fluent command of that language is probably not one of them. English-speaking students of Spanish would hardly qualify for an educational program conducted in Spanish, and Japanese-speaking students of English struggle to formulate the most rudimentary utterances in English. Nonetheless, each of these instructional experiences leaves the student with some facility in the language, perhaps more strongly developed for one modality (reading or speaking, for example), and a level of comfort in recognizing some forms and structures. Again, these students would be unlikely to describe themselves as bilinguals.

Some people live in home environments where the language of the extended family reveals an ethnic, cultural, or national background that is different from that of the community. Here the adults can function in two languages, and children born into these families may well learn some of that heritage language through familial interaction. In some of these situations, home bilinguals are created by the deliberate decision of parents to speak to the child in a different language, usually with one parent speaking each language. In other cases, casual knowledge that the child picks up in conversation can be supplemented by extra language classes – the familiar Saturday or Sunday schools organized by various communities. Often, however, there is little opportunity for formal study of this language and little expectation that the child will learn much of it, apart from that needed for ordinary domestic routines.

In some communities, bilingualism is simply expected. In these cases, the social organization of language at home and at school gently and irrevocably places children in the position of acquiring two languages. Some of this type of bilingualism is a legacy of colonialism. Following independence, many countries maintained the colonial language (notably, English, French, Portuguese, Spanish, or Dutch) in most of their social and

official functions even though it was not a first language for the majority of the population (Ellis, 1994). In Papua New Guinea, most children learn a local language and Tok Pisin, the standard vernacular, before they enter school where the language of instruction is English (Skutnabb-Kangas, 1981). In the Philippines, children may learn one of seventy languages in the home before being immersed into English and Filipino instruction at school (Galang, 1988). In Hong Kong where 99 percent of the population is Chinese-speaking, English remains prevalent (Wong, 1988). English is also the official language of Nigeria adopted from its colonial days, while for Zaire, it is French (Ellis, 1994). These situations all demand that children have high levels of proficiency in at least two languages.

Children who encounter another language in these ways experience different kinds of interactions with each language, interact in different types of social situations with each, encounter different opportunities for formal study, and may also develop different kinds of attitudes to each language. For these reasons, the various configurations that lead to bilingualism leave children with different levels of competence in each of the languages. When we think of bilingual children, we think of those who appear to function equally in two languages, move effortlessly between them, and adopt the appropriate sociocultural stance for each. Indeed, it is an impressive sight to observe a young child, perhaps four or five years old, engaged in conversation in different languages, controlling both, and not struggling at the first sign that the language needs to change to accommodate some benighted monolingual in the group. Even these children, however, may have experienced a broad range of circumstances that importantly alter the nature of their bilingualism.

Romaine (1995) describes six patterns of home language bilingualism, each one different, and each difference relevant. These patterns combine values on social and linguistic dimensions, taking account of both the minority or majority status of each language and the linguistic input received by the child. The six types are:

Type 1: one person, one language
Type 2: nondominant home language/one language, one
    environment
Type 3: nondominant home language without community support
Type 4: double nondominant home language without community
    support
Type 5: nonnative parents
Type 6: mixed languages

In each case, she identifies the relevant differences and lists the major research studies. This is a useful inventory of the circumstances children experience in bilingual language acquisition. All these children become bilingual at home, but all of them are learning their languages under different conditions that undoubtedly lead to different levels of competence in each. These differences are not pursued here but considered as variants of the experience of learning two languages in the home.

The proficiency achieved from different experiences can vary on other dimensions besides absolute competence. Dopke (1992) distinguishes between productive bilinguals and receptive bilinguals. The first is the familiar configuration of speaking two languages to some degree of competence; the second is the common but less often acknowledged arrangement in which an individual can understand or possibly even read a second language without being able to produce it.

Who Is Bilingual?

Who shall we include in the study of development in bilingual children? Is there a formal criterion for proficiency that will point to the relevant group of children? Academic speculation on this matter does not solve the dilemma. Views vary from Bloomfield's (1933) insistence that a bilingual has full fluency in two languages to the more pragmatic assertion by Grosjean (1989) that a bilingual is someone who can function in each language according to given needs. We return to this problem of defining proficiency below.

Begin with the formalities that are necessary for deciding about proficiency in a language. There is less consensual agreement about the structural formalisms of language than we might wish. For example, as speakers of English we feel confident that we understand the definitional criteria for what constitutes a *word*. Yet speakers of some other languages, notably Chinese, have little understanding of what we mean by word since that unit essentially does not exist in Chinese. When native speakers of Chinese were asked to divide a Chinese sentence into words, they first complained that the instruction made no sense and then produced a highly variable set of responses (Miller, Zhang, & Zhang, 1999). This example illustrates that we cannot take for granted the absolute and universal structure of language; our categorical and objective notions of what languages look like are not necessarily accurate.

It is not only the problem of setting identifiable limits on speaker's proficiency that blurs the boundaries of a clear notion of bilingual. An-

other aspect of uncertainty is introduced by examining the particular languages in the bilingual mix. We think of bilingual individuals as those people who are able to speak two (or more) languages, to some level of proficiency, but identifying what counts as a language is not a straightforward judgment. We take for granted that we know what languages are – where one stops and the next one starts. That notion, too, is illusory: the delineation of individual languages is often a matter of decree. The formal differences that divide some languages, such as Dutch and Flemish or Hindi and Urdu, are far smaller than those that divide dialects of the same language, such as versions of Chinese or Arabic (Fabbro, 1999; Spolsky, 1998). In China, it is normal for people to know both an official language and a dialect. These variants can be significantly different from each other. Some languages, such as Arabic and Malasian, are diglossic. In these cases, different styles of language are required in different settings, but the differences between the styles can be as great as the differences between acknowledged languages. In diglossia, one form of the language is used as the vernacular for informal and social purposes and another is used as the institutional form for formal, educational, or religious functions.

Children can also become bilingual by learning only one spoken language. In these cases, children might learn a spoken language (perhaps English) and a sign language (perhaps ASL), a system that is the same as a natural language in every respect (Klima & Bellugi, 1979). It is normal for hearing children of deaf parents to learn these two languages simultaneously in childhood, acquiring both in a completely natural manner from their environment. Additionally, some children learn two or more sign languages either with or without any spoken languages. Although there is little research on these situations, the data that do exist confirm that the bilingual acquisition of two languages, one signed and one spoken, by young children has precisely the same in pattern and trajectory as that for the acquisition of two spoken languages (Johnson, Watkins, & Rice, 1992).

Bilingualism also carries a psychosocial dimension that can itself profoundly affect children. The language we speak is instrumental in forming our identity, and being required to speak a language that is not completely natural may interfere with the child's construction of self. Children who are bilingual because of relocation, particularly unwanted relocation, may resent the new community language they have learned in spite of their proficiency with it. Appel and Muysken (1987) describe how some of these factors affect bilingual children by accounting for the attitudes to the language and the role of language in establishing ethnic and cultural

affiliations. These factors undoubtedly have a strong causal role in determining how competent children ultimately become in each of their languages and the purposes for which they are eventually willing to use each.

The situations described above indicate some of the multidimensional aspects of bilingualism and the complexity of defining the circumstances that point uniquely and unambiguously to a set of bilingual children. All the children in those examples are bilingual, even though their lives betray very little of that common experience.

Methodological Complications

The intention of this volume is to examine how bilingualism influences the linguistic and cognitive development of children. As we have seen, however, the designation of the subjects of study, namely, bilingual children, is not straightforward. Criteria are needed, but there is a potential circularity in specifying what those criteria might be. Consider, for example, that a decision is made to include all children who have even very limited competence in a second language as bilingual, and then study their development in contrast to absolute monolinguals. Using this approach, it may emerge that bilingualism has little impact on children's intellectual growth. That conclusion, however, may be too heavily weighted by the children whose second-language competence was restricted. If the research showed that limited competence in a second-language does not lead to the same consequences as more balanced mastery, then that would be grounds to eliminate marginally bilingual children from the inquiry. The problem is that we could not know that until the data were examined. Conversely, an early decision to apply restrictive criteria to the definition may exclude some children who were nonetheless affected by their linguistic background. Using a different approach, it may be discovered that even modest control over another language adjusts the dimensions of children's development. This conclusion would have been forfeited by an overly restrictive set of criteria. The problem is that the decision about who to include as bilingual must precede the evidence for what effect bilingualism has on these children, a situation that is logically reversed.

Nevertheless, restrictions must be made. The earlier examples of situations that lead to some small measure of control over another language for children illustrate the complexity of determining the parameters for childhood bilingualism. Children become bilingual for many reasons: immigration, education, extended family, temporary residence in another country, dislocation, or simply being born in a place where it is assumed that

bilingualism is normal. These precipitating conditions are often associated with a set of correlated social factors, such as education level of parents and parental expectations for children's education, degree and role of literacy in the home and the community, language proficiency in the dominant language, purposes for which the second language is used, community support for the second language, and identity with the group who speaks the second language. Children's development is affected by all of these factors. The constellation of social, economic, and political circumstances of life have a large bearing on how children will develop both linguistically and cognitively. If bilingual children differ from each other in these dimensions, as they surely do, then they will also differ in the way that their bilingualism has interacted with the highly variable dimensions of their linguistic and cognitive development. Therefore, any averaging of relevant developmental indices across the conditions for becoming bilingual will be confounded with an array of hidden factors that crucially influence development.

Another factor that complicates the equation is that languages can be used for different purposes. It is reasonable to suppose that, all else being equal, the uses for which a child must employ the second language will influence the way in which it impacts on cognitive development. Grosjean (1996) notes that this issue is partly responsible for the fact that bilinguals rarely develop equal fluency in their languages. He discusses how different causal factors, such as migration, nationalism and federalism, education, trade, and intermarriage, lead to different uses of each language in each setting. The proficiency that the child develops in each language, therefore, is a specific response to a set of needs and circumstances. Some of these specific functions become embedded as immutable aspects of language proficiency: bilingual adults routinely count and pray in the language in which they first learned these behaviors (Grosjean, 1996; Spolsky, 1998).

To understand the role of bilingualism in children's development, therefore, not only must bilingualism be defined precisely but also must it be separated from the myriad of social conditions with which it is correlated and linguistic contingencies with which it is confounded. This is not easily done. The procedure for discovering how bilingualism impacts on development is to engage in controlled research, but these definitional ambiguities mitigate against the creation of a clean empirical design.

In constructing research designs, the attempt is to identify the factors, or independent variables, that create potentially relevant groups. Sometimes the factors are included in order to dismiss their role in behavior, such as including gender in a design when it is hoped that no gender

differences emerge. In a balanced design, the differences between groups lead to simple inferential conclusions. If the difference between groups is not statistically reliable, then the conclusion is that the two groups are the same. For example, a set of results indicating that a group of male and female participants who are otherwise comparable scored the same on a concept formation task would lead to an acceptance of the null hypothesis, namely, that gender (the independent variable) is irrelevant to performance. Sometimes, as in the case of gender, it is desirable to be in a position to accept the null hypothesis.

The more interesting aspect of research design is in constructing the independent variables that we wish to use as a basis for rejecting the null hypothesis. We want a difference to emerge between groups and we would like statistical evidence that the difference is reliable. Usually, this is relatively straightforward. We may believe, for example, that a significant change in performance occurs at a certain age, or in a specific instructional program, or for speakers of a particular language. The procedure is then to assign participants to levels or groups determined by these independent variables, such as age, program, or language. The reason for this is probably due more to limitations of analytic sophistication than conceptual imagination. In other words, the procedures for analyzing the data require this categorical assignment to groups, even if our conceptual notions are more graduated. Simple judgments about membership in a level of the independent variable are central to carrying out the statistical analysis, an indispensable step toward making empirical conclusions.

There are two problems when this empirical model is applied to the study of bilingual children. The first is that bilingualism is not a categorical variable. Any assignment of children to a group labeled either bilingual or monolingual is an obfuscation of the complexity of the concept of bilingualism and a diminishment of the intricacy of children's language skills. Bilingualism is not like age, or gender, or grade, or any of the usual variables we use to classify children in developmental research. At best, bilingualism is a scale, moving from virtually no awareness that other languages exist to complete fluency in two languages. At what point on this scale do we declare children to be bilingual? How do we conduct research on the impact of a variable that we struggle to define?

In the ideal research design that compares performance across groups, the two groups are exactly the same except for the single independent variable we have chosen to study. This clear divide between the groups is necessary if we are to interpret any performance differences that emerge between them. With everything else being equal and controlled, signifi-

cant differences in performance that may emerge can be attributed only to the single dimension that divides the otherwise equivalent samples. It is then a straight line from examining the data to interpreting the meaning conveyed by those results.

The second problem is in the equivalency of the groups, even if categorical placements can be achieved. Bilingual children are never *exactly* the same as an otherwise comparable group of monolingual children except for the number of languages they speak. In some inevitable sense, bilingual children live different lives than their friends and neighbors who may be socially, economically, and politically similar but speak only one language. Bilingual children may have different home arrangements, perhaps being cared for by an extended family member who speaks another language. Bilingual children may travel more than monolinguals, making family visits to some other homeland. Bilingual children may spend more time than monolinguals in formal schooling, attending after school or weekend classes in their other language. Any of these differences that come with the bilingual experience may itself have an impact on aspects of language and cognitive development, aside from the bilingualism per se.

This situation presents an immense challenge to research. Controlled investigation of the impact that bilingualism might have on children's development requires that bilingual children are compared with equivalent monolinguals on specific aspects of performance. In the absence of a truly ideal control group, every effort must be made to assure that the experiences encountered by the two groups of children in the study are as comparable as possible. Additionally, it is imperative that an assessment of broad intellectual functioning take place to provide empirical confirmation that, on important developmental indices, the two groups are operating at the same cognitive level. The approach to handling this design problem is to make every effort to minimize the effect of extraneous variance by being scrupulous in designing the research studies. The only alternative would be to maintain an excessively purist attitude and refuse to participate in research that did not conform to the most rigorous definition of design control. That option, which would paralyze any scientific examination of the development of bilingual children, seems to be both unnecessary and indefensible.

Where the Research Looks

Research on bilingualism probably fails to reflect its diverse reality. The considerations that constrain research studies normally prevent many

types of bilingual children from being included in scientific inquiry. An important source of evidence for how bilingual children develop language and cognitive skills comes from carefully recorded diary studies. Such accounts were among the first evidence for the nature of bilingual development, beginning with Ronjat (1913), reaching an important level with Leopold (1939–49), and proliferating greatly after that (Arnberg, 1979; Fantini, 1985; Hoffman, 1985; Saunders, 1982; Taeschner, 1983; Vihman, 1985; Volterra & Taeschner, 1978). These studies form an essential part of the database. They cover diverse languages, different home arrangements, and together include a reasonably large number of children. The majority of these accounts, however, reflect a single reality: an educated middle-class family that has made a conscious decision to raise the children with two languages. Although this does not undermine the reliability of the descriptions produced by these studies, it does leave open a question about their generalizability to other social contexts. This issue is discussed in Chapter 8.

Proficiency; or, When Is Enough *Enough?*

The problem of knowing who is bilingual conceals a more basic question: how much is enough? Who among us does not know pieces of some other language – words or phrases, perhaps a rule or two, and some social routines for greeting, toasting drinks, or asking directions? These fragments hardly count as competence in the language, but how much more is required before some implicit threshold is reached? Accepting the standard assumption that no bilingual is ever equally competent in both languages, how much language is needed before we agree that a person is bilingual?

The answer depends on how we define language proficiency. We talk about language as though it had concrete existence and could be measured by scientific instruments. We describe the acquisition of language as though we move irrevocably from a state of innocence to one of mastery along a predictable path. We identify language impairment, language delay, and language precocity without ever specifying the standard against which these cases are to be judged. We use "language" in research designs as both a dependent and an independent variable, choosing fragments to serve as stimuli but concluding truths that define the domain. But what is the norm for language competence? What do we mean by language proficiency? What are its components and what is the range of acceptable variation? Although these questions may seem to be prior to any use of