
Bilingualism and Education

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ABSTRACT: *The concept of bilingualism as applied to individual children and to educational programs is discussed, and the history of research on bilingual children and bilingual education programs in the United States is reviewed. Bilingualism has been defined predominantly in linguistic dimensions despite the fact that bilingualism is correlated with a number of nonlinguistic social parameters. The linguistic handle has served policymakers well in focusing on an educationally vulnerable population of students, but the handle is inadequate as the single focus of educational intervention. Future research will have to be directed toward a multifaceted vision of bilingualism as a phenomenon embedded in society.*

Bilingualism is a term that has been used to describe an attribute of individual children as well as social institutions. At both levels, the topic has been dominated by controversy. On the individual level, debate has centered on the possible costs and benefits of bilingualism in young children. On the societal level, fiery argument can be witnessed in the United States about the wisdom of bilingual education and the official support of languages other than English in public institutions. Particularly in the latter case, emotions run hot because of the symbolism contained in language and its correlation with ethnic group membership.

The controversy surrounding bilingualism is magnified by a sense of urgency generated by the changing demographic picture. In the United States, there are over 30 million individuals for whom English is not the primary language of the home. Of those, 2.5 million are children in the school age range, with this number expected to double by the year 2000. There are now many states in which the linguistic-minority school population is approaching 25% or more (Arizona, California, Colorado, Florida, New Mexico, New York, and Texas), and in many large urban school districts throughout the United States, 50% of the students may come from non-English-speaking homes.

Whether the debate is over the merits of bilingualism in individuals or institutions, there is considerable confusion over a basic definitional issue. The problem can be succinctly stated as follows: Is bilingualism strictly the knowledge and usage of two linguistic systems, or does it involve the social dimensions encompassed by the languages? Oscillation between these linguistic and social perspectives on bilingualism has frequently led to misconceptions about the development of bilingual children

as well as misunderstanding in educational initiatives to serve linguistic-minority populations.

As a case in point, consider the linguistic and social complexities contained in the following statement about school experiences by a ninth-grade Mexican-born boy who had immigrated from Mexico six months earlier:

There is so much discrimination and hate. Even from other kids from Mexico who have been here longer. They don't treat us like brothers. They hate even more. It makes them feel more like natives. They want to be American. They don't want to speak Spanish to us, they already know English and how to act. If they're with us, other people will treat them more like wetbacks, so they try to avoid us. (Olsen, 1988, p. 36)

Bilingualism, thought of simply as a bivariate function of linguistic proficiency in two languages, underrepresents the intricacies of the social setting. The history of research on bilingual children contains many false inferences about the effects of bilingualism based on a miscalculation of the complexity of the phenomenon. Similarly, current research to evaluate bilingual education programs takes an extremely narrow definition of bilingualism, that is, as the usage of two languages in instruction.

The importance of language in helping us understand the phenomenon is obvious. Nevertheless, language's accessibility to scientists must not be confused with its role in either the cause of problems or solutions to them. Wage distribution can be useful in telling us about the structure of racial discrimination, but changing wage distribution may not help solve the root causes of the problem. In a similar way, looking at language, we realize, only helps to facilitate the identification of problems and potential solutions, but additional steps are needed to provide adequate education to linguistic-minority students.

In this article we argue that although language provides an important empirical handle on the problems associated with bilingualism, one must be careful not to overattribute the causes of those problems to linguistic parameters. We provide brief overviews of the knowledge of bilingual children and bilingual education programs that has been gained through reliance on narrow linguistic definitions, bearing in mind its heuristic value. We then offer future directions for research.

The Bilingual Child

In the calculus of mental energy, what are the costs of bilingualism? Early research on the effects of bilingualism on immigrant children, conducted primarily at the turn of the century, painted a bleak picture. As Thompson

(1952) wrote in summarizing this body of literature, "There can be no doubt that the child reared in a bilingual environment is handicapped in his language growth. One can debate the issue as to whether speech facility in two languages is worth the consequent retardation in the common language of the realm" (p. 367).

Much of this early work on bilingualism in children can be interpreted within the context of the social history surrounding the debate over the changing nature of immigration in the early 1900s. The basic data to be explained were bilingual children's poor performances on various standardized tests of intelligence. From the empiricist point of view, the bilingualism of the children was thought to be a mental burden that caused lower levels of intelligence. This viewpoint was offered as an alternative to the hereditarian position, argued forcefully by prominent nativists such as Carl Brigham, Lewis Terman, and Florence Goodenough, that the new immigrants were simply from inferior genetic stock (Hakuta, 1986). Subscribers to the latter viewpoint sounded the social alarm that "these immigrants are beaten men from beaten races, representing the worst failures in the struggle for existence. . . . Europe is allowing its slums and its most stagnant reservoirs of degraded peasantry to be drained off upon our soil" (Francis Walker, quoted in Ayres, 1909, p. 103).

What is interesting about this early literature is its definition of bilingualism. The bilingual children included in these studies were not chosen on the basis of their linguistic abilities in the two languages. Rather, societal level criteria having to do with immigrant status were used, such as having a foreign last name (see Diaz, 1983). It is not clear whether the "bilingual" children in these studies were at all bilingual in their home language and English. Yet, on the basis of such studies using social rather than linguistic criteria, conclusions were drawn as to the effects of linguistic variables on intelligence. The point here is that language is a salient characteristic of children from immigrant and minority backgrounds that provides an opportune dumping ground for developmental problems that may or may not be related to language.

Research in the last few decades, fortunately, has developed considerable sophistication in understanding second-language acquisition and the nature of bilingualism. What has emerged is a relatively consistent set of answers to some fundamental questions about the linguistic and cognitive development of bilingual children. These answers argue against the early view—still held to be fact by some laypersons and educators—that bilingualism could be harmful to the child's mental development and that the native language should be eliminated as quickly as possible if these effects are to be avoided.

Indeed, more recent studies suggest that all other things being equal, higher degrees of bilingualism are as-

sociated with higher levels of cognitive attainment (Diaz, 1983). Measures have included cognitive flexibility, metalinguistic awareness, concept formation, and creativity. These findings are based primarily on research with children in additive bilingual settings, that is, in settings where the second language is added as an enrichment to the native language and not at the expense of the native language. Causal relationships have been difficult to establish, but in general, positive outcomes have been noted, particularly in situations where bilingualism is not a socially stigmatized trait but rather a symbol of membership in a social elite.

Second-Language Acquisition

An important theoretical justification for the early view about the compensatory relationship between the two languages can be found in behaviorist accounts of language acquisition. If first-language acquisition consists of the establishment of stimulus-response connections between objects and words and the formation of generalizations made on the basis of the frequency patterns of words into sentences, then second-language acquisition must encounter interference from the old set of connections to the extent that they are different. The two languages were seen, in this empiricist account, as two sets of stimuli competing for a limited number of connections. This provided justification for the advice given to immigrant parents to try and use English at home so as not to confuse the children.

This empiricist account of language acquisition was strongly rejected in the late 1950s and 1960s on both theoretical (Chomsky, 1957) and empirical grounds (Brown & Bellugi, 1964). As with most revolutionary changes in the empirical disciplines, the nature of the questions about language acquisition changed in a qualitative manner. The new metaphor for the acquisition of language was the unfolding of innate capacities, and the goal of research became to delineate the exact nature of the unfolding process. If language acquisition was not the forging of connections between the stimuli of the outside world, then one would no longer have to see the learning of a second language as involving a "dog-eat-dog," competition with the first language. To borrow James Fallows's (1986) recent metaphor, having two languages is more like having two children than like having two wives.

There is considerable research support for this more recent view. For example, in the process of second-language acquisition, the native language does not interfere in any significant way with the development of the second language. Second-language acquisition and first-language acquisition are apparently guided by common principles across languages and are part of the human cognitive system (McLaughlin, 1987). From this structural point of view, the learning of a second language is not hampered by the first. Furthermore, the rate of acquisition of a second language is highly related to the proficiency level in the native language, which suggests that the two capacities share and build upon a common underlying base rather than competing for limited resources (Cummins, 1984).

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Language Proficiency

Just as recent work in intelligence has moved away from regarding it as a single unitary construct (Sternberg, 1985), recent work on the notion of "language proficiency" has revealed a rich and multifaceted concept (Cummins, 1984; C. E. Snow, 1987). Research has extended the notion of language ability beyond grammatical skills to the use of language in various contexts, and more sophisticated notions are developing regarding language acquisition.

For example, C. E. Snow has identified at least two different dimensions of language proficiency in bilingual children. One dimension involves the use of language in face-to-face communicative settings (contextualized language skills), and the other dimension encompasses language use relatively removed from contextual support (decontextualized language skills). Contextualized and decontextualized language skills are independent, such that facility in interpersonal language use may not imply the ability to use the language in academic situations.

The diversification of language proficiency into different task domains complicates the task of understanding bilingual ability. The measurement of bilingualism has always been complex, and the maintenance of bilingualism in communities has been regarded by sociolinguists as best understood with respect to situational and functional constraints imposed in language use (Fishman, Cooper, & Ma, 1966). What is important is that language ability does not develop or atrophy across the board, that is, across the various domains of application.

Social Context of Language Usage

Research on the use of the two languages in bilingual children (Zentella, 1981) suggests that they are adept at shifting from one language to the other depending on the conversational situation (a process known as code-switching) and that this behavior is not the result of the confusion of the two languages. Rather, bilinguals code-switch with each other to take advantage of the richness of the communicative situation, and from the viewpoint of ethnographers, one function of such code alternation is to establish and regulate the social boundaries of the two worlds (Gumperz, 1982). Such studies are important because they remind the student of child language that bilingualism (and language use in general) is a social phenomenon that takes place between two or more parties and that questions of language use are really questions about social context, not about linguistic structure.

Conclusions About Bilingual Children

The research evidence suggests that second-language acquisition involves a process that, rather than interacting structurally with the first language, builds upon an underlying base common to both languages. There does not appear to be competition over mental resources by the two languages, and there are even possible cognitive advantages to bilingualism. It is evident that the duality of the languages per se does not hamper the overall language proficiency or cognitive development of bilingual children.

Despite such conclusions, it is interesting to note the extent to which the debate over bilingual education has centered on the metaphor of languages in competition.

Bilingual Education

The policy debate over how best to educate students who enter school with limited ability in English has focused on the issue of native-language support in instruction (August & Garcia, 1988; Baker & de Kanter, 1983). There is hardly any dispute over the ultimate goal of the programs—to "mainstream" students in monolingual English classrooms with maximal efficiency. The tension has centered on the specific instructional role of the native language: How long, how much, and how intensely should it be used?

On one side of this debate are supporters of native-language instruction. Proponents of bilingual education recommend aggressive development of the native language prior to the introduction of English. This approach is based on the argument that competencies in the native language, particularly as they relate to decontextualized language skills, provide important cognitive foundations for second-language acquisition and academic learning in general. The ease of transfer of skills acquired in the native language to English is an important component of this argument.

On the other side of the debate, some recommend the introduction of the English curriculum from the very beginning of the student's schooling experience, with minimal use of the native language. This strategy calls for the use of simplified English to facilitate comprehension. The approach is typically combined with an English as a Second Language (ESL) component. One intuitive appeal of this English-only method is its consistency with time-on-task arguments—that spending more time being exposed to English should aid students in their acquisition of English (Rossel & Ross, 1986).

Research and Evaluation of Bilingual Education

Bilingual education programs have been in existence for over two decades, and thus the reasonable question arises as to whether there is evidence of the relative effectiveness of the different approaches. Summative evaluations of programs that compare these different approaches have run into difficulty on a number of fronts. Willig (1985), in a meta-analysis of studies of the effectiveness of bilingual education, complained that evaluation research in this area is plagued with problems ranging from poor design to bad measurement. She concluded that "most research conclusions regarding the effectiveness of bilingual education reflect weaknesses of the research itself rather than effects of the actual programs" (p. 297).

The range of variability among the research approaches chosen is instructive. Almost all of the program evaluation studies concentrate on the effectiveness of the programs in teaching the students English, rather than focusing on students' overall academic development or factors other than traditional measures of school success. Furthermore, the studies tend to observe children over

only a limited duration, often no more than two years. The research defines its treatments and outcomes in strictly linguistic terms. At stake is the question of which approach would lead to faster and stronger acquisition of English. This question is a scientifically legitimate one, but it is dwarfed when compared to the outcomes that are of real long-term interest to society: the social and economic advancement of linguistic-minority populations through education.

Paulston (1980) expressed concern with the narrowness of the definition of program success in the following way:

It makes a lot more sense to look at employment figures upon leaving school, figures on drug addiction and alcoholism, suicide rates, and personality disorders, i.e., indicators which measure the social pathology which accompanies social injustice, rather than in terms of language skills. . . . The dropout rate for American Indians in Chicago public schools is 95 percent; in the bilingual-bicultural Little Big Horn High School in Chicago the dropout rate in 1976 was 11 percent, and I find that figure a much more meaningful indicator for evaluation of the bilingual program than any psychometric assessment of students' language skills. (p. 41)

It is not always the case that English-language proficiency has guided educational research with bilinguals. The Significant Bilingual Instructional Features Study, funded in 1980, was a federal study that described instructional strategies in selected "effective" bilingual education classrooms around the country (Tikunoff, 1983). It was able to identify instructional attributes in these classrooms that were similar to those reported in effective nonbilingual classrooms as well as a set of attributes specifically common to the effective bilingual classrooms. More recent research, particularly that of Carter and Chatfield (1986) and Krashen and Biber (1988), has followed this earlier example of describing the organizational and instructional attributes of schools and classrooms that produce academically successful bilingual students. However, even the most recent federal initiatives regarding program evaluation continue to look almost exclusively at English-language skills as the primary outcome variable (Ramirez, 1986).

Bilingual Education Policy

Continued focus on instructional language as treatment and English language as outcome can be directly traced to the judicial and legislative impetus for the development of programs and the related student eligibility criteria. The courts and Congress have repeatedly spoken directly to the disadvantages that students face as the result of their limited English proficiency. In the landmark 1974 United States Supreme Court decision in *Lau v. Nichols*, the court directly addressed the issue of language: "There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum: for students who do not understand English are effectively foreclosed from meaningful education" (p. 26). In that same year, Congress addressed the issue in the Equal Education Opportunity Act (EEOA, 1974). The

EEOA was an effort by Congress to specifically define what constitutes a denial of equal educational opportunity, including "the failure by an educational agency to take appropriate action to overcome language barriers that impede equal participation by students in its instructional programs" (EEOA, 1974, p. 1146).

Federal program initiatives in the form of targeted bilingual education legislation (in 1968, 1974, 1978, 1984, and 1988) have provided over a billion dollars in support for local school-district programs. In concert with the aims of the legislature and the courts, the main goal of these programs is to increase English-language proficiency. Guidelines for student inclusion in these programs have required evidence of limited English oral ability as assessed by a standardized English measure; a similar assessment of English proficiency is required prior to program exit. States with large numbers of bilingual students have adopted similar requirements. Moreover, these state and federal programs have focused their attention on the instructional strategies, frequently defined with respect to language of instruction, that will ensure the development of English-language proficiency.

The narrow linguistic definition of bilingualism in such programs has meant problems in accounting for all of the data. For example, as Cummins (1986) pointed out, linguistic mismatch between home and school may be a viable explanation for the school failure of some Spanish-speaking groups, but it fails to explain why some Asian-language groups have not experienced similar degrees of difficulty. Larger social and cultural factors embedded in the histories of different linguistic-minority groups may need to be taken into account (Ogbu & Matute-Bianchi, 1986), as well as differences in learning styles that interact with instructional approaches (Wong Fillmore & McLaughlin, 1986).

That the linguistic definition of bilingualism in these programs can lead to imperfect predictability with respect to different groups of students should come as no surprise. Obviously, no quick fix for larger issues of social and cultural adjustment is likely to result from the manipulation of a single variable such as instructional language. We do not mean to suggest that the language variable is unimportant; rather, we are warning that the isolation of this single attribute as the only variable of significance ignores our present understanding of language as a complex interaction of linguistic, psychological, and social domains. The linguistic handle may have served policymakers well in focusing on an educationally vulnerable population of students, but it is clearly inadequate as the single focus of educational intervention aimed at ensuring academic competence for this population.

Future Research

A considerable amount of knowledge has accumulated on bilingualism in recent years (summaries have been offered by Garcia, 1983; Grosjean, 1982; Hakuta, 1986; Haugen, 1973), and the topic has captured the attention of scholars from diverse disciplines. Inevitably, this body of research has overlapped with issues in education, par-

ticularly linguistic-minority education. The potpourri of concerns closely related to bilingualism constitutes a fertile meeting ground for social scientists with widely different research interests. We believe that future research should be directed at expanding the knowledge to be gained at the junctures of those diverse interests, as described in the following sections.

The Language-Cognition-Affect Connection

How language is related to general cognition and how both of these are involved with affective variables such as attitude, self-awareness, and identity formation can be fruitfully studied in bilingual individuals. Bilinguals, for example, provide test cases that disassociate variables in cognitive and language development that are otherwise conflated (Slobin, 1973). On the affective dimension, the relationship between affective variables and changes in language proficiency (e.g., greater degrees of acquisition of a second language or attrition of the native language) has been well explored in some settings (Gardner, 1983; R. D. Lambert & Freed, 1982). However, specific mechanisms about the relationship (e.g., Clark & Fiske, 1982) have yet to be proposed, and a coherent framework that takes into account issues of social identification processes (Gumperz, 1982) and emotions (Ervin-Tripp, 1987) must be developed. Bilinguals, as individuals who possess different configurations of affect toward the two languages, provide important empirical evidence on such relationships.

Individual/Societal Levels of Analysis

Bilingualism also offers an important area where the connections between individual and societal levels of a phenomenon can be studied. One example would be the notion of language vitality (Giles & Johnson, 1981) in individuals and in social groups. It is well known that bilingualism in social groups undergoes shift, often resulting in a monolingual community within two or three generations (Veltman, 1988). The rate of this language shift is a function of language vitality.

One argument for advocating aggressive development of the native language of linguistic-minority youngsters prior to introduction of English is that there is little environmental support for the home language because the social milieu (aside from the home and the immediate community) is overwhelmingly English (W. E. Lambert, 1984). Lower levels of language vitality at the larger community level presumably lead to lower levels of individual development in language proficiency. This relationship between the social milieu and the individual child has not been rigorously studied, but it provides an ideal "preparation" in which the impact of a societal level variable on individual development can be mapped out in detail.

Research, Practice, and Policy Interface

There continues to be a great need for quality research on the basic processes of bilingualism as well as on the nature and effectiveness of educational programs that

serve linguistic-minority students. The need is made greater because this topic readily invites "folk" speculation based, for example, on the experiences of immigrant relatives.

Among the various dilemmas confronting socially minded researchers is balancing responsiveness to this pressing need of society against standard scholarly attitudes toward applied research. Scientists with a sense of social responsibility often have resorted to bifurcating their energy, and scholars who have ventured into social policy have at times endangered their own scientific credibility. As in many areas of child development, bilingualism and education is an exciting arena in which basic research can be conducted with educational and policy emphases, and with mutual enrichment rather than compromise (Zigler & Finn-Stevenson, 1987).

Indeed, in our view, scholars who conduct such research must step away from their traditional relationships with educators and policymakers. Rather than interpreting ivory tower research for practitioners, a collaborative structure and program of research must be formed through an ongoing dialogue between all parties involved in the education of linguistic-minority students, and new research questions can be generated from such discourse. An important by-product of such collaboration would be the efficient translation of research into practical and political deliberations, as well as deep inquiry into the role relationships between the various parties involved (Cummins, 1987).

Linguistic Minorities and the Linguistic Majority

We believe that work in the area of bilingualism must establish continuities between the phenomenon as it occurs in minority and majority populations. For example, is second-language acquisition in principle the same process when operative in linguistic minority and majority individuals? How is the acquisition of English by a Hmong refugee child different from the acquisition of French by a native speaker of English?

At the programmatic level, it is important to recognize the paradox that the educational system continues to convert linguistic-minority bilingual children into English monolinguals yet, at the same time, deplors the lack of competence of Americans in foreign languages, many of which were natively spoken by minority children (Simon, 1980). So-called bilingual immersion programs (M. A. Snow, 1986), which combine language programs designed for minority students with those for majority students, should be encouraged and rigorously researched because they provide important continuity between the two groups and address an important societal need for a bilingually competent workforce.

Acknowledgment of the Complexity

As we have argued throughout this article, the linguistic aspects of bilingualism provide only a window into a complex set of psychological and social processes in the development of bilingual children. A broad multidisciplinary perspective must be applied to the increasingly

important problems faced by linguistic-minority students throughout the socialization process. How else are we to capture, understand, and respond to the sentiments of many immigrants, so eloquently expressed by this 10th-grade Chinese-born girl who had immigrated at age 12?

I don't know who I am. Am I the good Chinese daughter? Am I an American teenager? I always feel I am letting my parents down when I am with my friends because I act so American, but I also feel that I will never really be an American. I never feel really comfortable with myself anymore. (Olsen, 1988, p. 30)

There is, indeed, more to issues confronting the bilingual individual than can be summarized by language proficiency measurements. As social scientists and educators, it is our obligation to capture the complexity of the situation and in the process to enrich our own science and practice.

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