

THE ROLE OF RESEARCH IN POLICY DECISIONS ABOUT
BILINGUAL EDUCATION*

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The history of the debate on bilingual education is characterized by inattention to relevant research. Both opponents and advocates of bilingual education have been influenced by popularly held opinions more than by expertise, and have invoked research, if at all, haphazardly, unsystematically, and without the desired thoroughness or rigor. We therefore welcome this opportunity to bring to Congressional attention the conclusions that can be drawn from research on bilingual education and bilingualism in children for purposes of determining national priorities in bilingual education.

Before starting, we need to point out that when talking about research, we are really referring to a diverse collection of activities. Out of this diversity, it appears to us that one strain of research has dominated the spotlight in the current debate: evaluation research. This type of research has typically compared bilingual education to alternative forms of education, usually some form of submersion education with an ESL (English as a Second Language) component. Critics of bilingual education have used the rather equivocal conclusions from evaluation research to support their point.

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Another strain of research, which might be called basic research, has received less emphasis in the debate over bilingual education. Basic research focuses on the linguistic and psychological processes in the development of bilingual children. This research attempts to understand how children learn a second language, how their two languages interact, how language is related to thinking, and how children learn at different rates and develop different styles in their language and cognitive abilities. Basic researchers include psychologists, linguists, anthropologists, and sociologists. In general, they are not directly tied to the practice of bilingual education, although their research has often been conducted in the context of bilingual education.

We contend that the findings from basic research have been given insufficient consideration in the debate on bilingual education despite the fact that the information produced by basic research is crucial to policy considerations. The importance of basic research is heightened by the fact that there are severe technical and conceptual problems with the evaluation studies that have been carried out; indeed, these problems are so severe that relying on the results of these studies to guide policy-making could be dangerous. In our commentary, we first summarize the problems with existing evaluation research studies and review their conclusions. We then describe the findings from basic research studies as an alternative source of information to policy makers on bilingual education. Finally, we propose some implications for bilingual education policy.

Evaluation Research

Attempts to evaluate the effectiveness of bilingual education programs, such as the often-cited large-scale study by the American Institutes for Research (Danoff *et al.*, 1977a, b, 1978) and the Baker and de Kanter (1981) synthesis of smaller evaluation studies, have been criticized by many researchers (McLaughlin 1985 provides an even-handed and thorough review of the criticisms). These studies generally concluded that bilingual programs are no more effective in promoting English language and other school skills than alternative programs. The alternative programs most often included in the evaluation were 'submersion' programs, in which non-English speaking children are placed in regular, mainstream classrooms, perhaps with a few hours a week of ESL (English as a Second Language) help. The lack of positive evaluation results has led opponents of bilingual education to argue for alternative instructional methods.

However, the lack of consistent findings in the evaluations, either for or against bilingual education, could result from either of the following states of affairs:

- (a) in reality, bilingual education programs are no better than alternative programs, and evaluation research accurately reflects this reality;
- (b) in reality, bilingual education programs are better than alternative programs, but the evaluation studies are doing a poor job of measuring this reality;

Policy makers in criticizing bilingual education have assumed circumstance (a) to be true, yet, as shown below, alternative (b)

seems more likely. The lack of evidence for differences between the groups under these circumstances is an artifact of poor measurement.

One problem with evaluation research has been the selection of the comparison group against which the bilingual education treatment group is assessed. As Willig (1985) has pointed out, very few studies use the ideal method of "random assignment." In some studies, the comparison group included students who had formerly been in bilingual programs, which made the findings uninterpretable by biasing the results in the direction of the comparison group (since students who have exited from bilingual programs early tend to be the more academically gifted students).

An even more serious problem is the extreme diversity of instructional methodology within programs that have been labelled as bilingual. Recent studies by Wong Fillmore (1985) as well as the recently-released survey of services provided to language minority students conducted by Development Associates, for example, show large variations in instructional practice across bilingual classrooms. Some classrooms in 'bilingual programs' looked very similar to some 'submersion' classrooms. Many 'bilingual' teachers were found to have limited proficiency in the children's native languages. Thus, although the evaluation studies allegedly compared bilingual programs with alternative programs, in fact they only compared programs labeled 'bilingual' with programs labeled 'submersion'. Without actual classroom observation and description of the instructional characteristics of the various programs, we do not really know

what was being compared with what. Under these circumstances, any conclusions about the effectiveness of bilingual practice are premature. As Willig (1985) concluded in her review of this literature, "the overwhelming message derived from these data suggests 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).

At the same time that we urge caution because of the weaknesses of current evaluation research, we realize that legislators cannot afford to wait for the results of more refined research. We are often asked, given the information that we do have available, where the weight of the evidence falls.

Perhaps most illuminating in this regard is Willig's (1985) re-analysis of the same set of studies that were used in Baker and de Kanter's report. Willig employed a more rigorous method of analysis that systematically took into account the quality of the individual studies; this enabled her to rely more heavily in her conclusions on research of higher quality. She found evidence, contrary to Baker and de Kanter, in favor of bilingual education programs. Most important was her finding that the better the methodology used in the studies the greater was the effect in favor of bilingual programs.

Thus at present, our best informed judgment forces us to conclude that circumstance (b) above is correct, that bilingual education is indeed superior to submersion, that poorly conducted evaluation research has obscured this fact, and that evaluation research conducted with greater rigor would bear out the

superiority of bilingual education as an instructional method in many educational contexts. At the same time, we underscore the importance of making improvements in the quality of research to evaluate bilingual programs in the future.

Basic Research

Although basic research has often been conducted outside the context of the American bilingual education classroom, it has generated conclusions that have a direct bearing on the current policy debate on bilingual education. Here we outline some of the major conclusions. Several comprehensive books on basic research in bilingualism and second language acquisition have appeared in recent years (Cummins 1984; Grosjean 1982; Hakuta 1986; McLaughlin 1984, 1985), and can be referred to for details. The nature of language proficiency.

People tend to think of language, like intelligence, as a single, simple, unitary capacity, easily measurable by a single test. However, recent research indicates that language is not a unitary skill, but rather a complex configuration of abilities. Most importantly, it seems that language used for conversational purposes is quite different from language used for school learning, and that the former develops earlier than the latter.

In the context of bilingual education, this means that children become conversationally fluent in English before they develop the ability actually to use English in academic situations. Bilingual programs are commonly criticized for keeping students too long, even after their English is 'adequate.' English skill judged as 'adequate' in an informal

conversation, or even on a simple test, may not mean that the child's skills are adequate for understanding a teacher's explanation, for reading a textbook, or for writing a composition. Research tells us that conversational adequacy is not the appropriate criterion for mainstreaming students.

We recommend that one major goal of bilingual education should be the development of the full repertoire of linguistic skills in English, in preparation for participation in mainstream classes.

The relationship of the two languages.

A major argument against bilingual education has been that it does not develop English rapidly enough because of its emphasis on the native language. However, the major premise of this argument--that the time spent in the classroom using the native language is wasted or lost--is overwhelmingly rejected by research. First, a strong native language foundation acts as a support in the learning of English, making it easier and faster. Second, most of the learning that goes on in the native language transfers readily to English. This is true for content areas like math, science, and social studies, but also for skills in speaking, reading, and writing. The child who already understands why 'tres por ocho es igual a cuatro por seis' will not need to be taught such number equivalences again in English. Similarly, the child who knows how to write a topic sentence or look up a word in the dictionary in Portuguese or Chinese will have these skills available for use in the English classroom.

The implication of this finding is that time spent working and studying in the native language in bilingual classrooms is

not time lost in developing the skills needed for school success. Becoming fluent in a second language does not necessarily mean losing the first language, nor does maintenance of the first language retard the development of the second language.

The relationship of language and general mental functioning.

There exists a persistent belief that for minority children, bilingualism confuses the mind and retards cognitive development. This belief is founded on some early attempts to explain why immigrants from southern and eastern Europe were performing poorly on IQ tests. However, current research shows that there is no such thing as retardation caused by bilingualism; if anything, the development of a second language can have positive effects on thinking skills. The advantage of bilingual children over monolingual children in cognitive flexibility has been shown in a number of different studies, particularly in contexts of additive bilingualism where the second language is added while the native language is maintained.

These findings suggest that there is no cognitive cost to the development of bilingualism in children, and very possibly bilingualism brings with it the added bonus of the enhancement of children's thinking skills.

The differences between individual children

Research cautions against attempting to formulate policy based on the observation of a limited number of children. There are, to be sure, documented cases of children who rapidly acquire a second language. However, the research shows these children to be the exception rather than the rule. There are tremendous

variations across different children in the rate at which they learn the second language, and the process is not as painless as one would want to believe. The variation is due to a multitude of factors, including cultural background, the strength of the native language, home language environment, personality, attitude, and aptitude for learning languages.

Bilingual education programs should have the flexibility to adjust to these large individual and cultural variations.

Furthermore, educators should develop the expectation that it is not abnormal for some students to need bilingual instruction for relatively long periods of time, whereas others for whom all the individual and cultural factors support second language learning, may exit from bilingual programs quite quickly.

The optimal age for second language acquisition

Many people believe that only children can learn a second language quickly and easily, and that if children have not mastered the second language by early school years, they never will. This belief has been responsible for a sense of urgency in introducing English to non-English speaking children, and for worries about postponing children's exit from bilingual programs.

However, the belief that children are fast and effortless second language learners has no basis in fact. Teenagers and adults are much more efficient learners than elementary school children, and 4th to 7th graders are faster than 1st to 3rd graders. Research in Canada has shown that one year of immersion in the second language classroom environment at 7th grade is worth three years' immersion starting at 1st grade. Especially for primary grade children, it is important to realize that

second language learning is likely to be a very slow process; but also that it can still be successful if started much later than age 5 or 6.

Bilingual programs should be designed with the expectation that young school age children learn second languages rather slowly, and will need several years of learning before their English is as good as that of children who have been speaking it since birth. Complementarily, it should be recognized that starting to speak English even as late as high school is no barrier to learning to speak it very well.

Literacy

Perhaps the major task of schools is teaching children to read. Although reading scores for American children in general have improved during the last 15 years, the most recent results of the National Assessment of Educational Progress indicate that Hispanic children still lag far behind English-speaking children in reading achievement. Furthermore, the gap widens at higher grades; poor reading skills in late elementary and secondary school children mean that such children are having trouble in all their school subjects, since their ability to comprehend textbooks in science, math, social studies, and other areas is inadequate.

Many factors contribute to children's being good or poor readers, as documented in the recent report of the Commission on Reading, 'Becoming a Nation of Readers'. One source of help to children's reading is the home; homes where children have access to time alone with adults, where literacy is modeled, displayed

and valued, and where parents' attitudes emphasize learning and school achievement typically produce children who have little difficulty learning to read. For children whose homes do not provide this kind of support to literacy, learning to read is a difficult task, and one which can much better be started in the home language--the language the child knows best. These children often don't really know 'what reading is all about'--the nature and purpose of literacy. Such children are at serious risk for failure to learn to read if the problem of reading itself is made more difficult for them by being presented in a language they control poorly. Children whose homes support literacy acquisition will be able to learn to read in a second language with little trouble; children whose homes can offer little support need the help of excellent schools, excellent teachers, and a reading program in the home language. Once the basic principles of reading are mastered in the home language, reading skills transfer quickly and easily to a second language.

Bilingual programs should concentrate on providing literacy skills in the home language, especially for those children whose parents have little education and poor literacy skills. The introduction of reading in English can be safely and efficiently postponed until after reading in the home language has been mastered. Reading achievement in English will be higher, and will be attained in less time, if reading is taught first in the home language.

Social interactional factors in second language acquisition

Obviously, having the opportunity to talk to a native speaker of English can only help in learning English. A

criticism often leveled at bilingual programs is that they isolate non-English speaking children from the English speakers who should be their friends, and who should be helping them learn English.

It is not the case, though, that merely playing with other children contributes much to the kind of language skills needed for school success. Young children can play, and have fun, and even 'talk' together with rather little solid knowledge of each other's language. Learning the English language skills needed for school success requires much more, for most children, than just the ability to find some English-speaking playmates.

Children, like adults, only interact with people they like or admire. If non-English speaking children in mainstream classrooms come from groups that are negatively stereotyped by the English speakers, they will not easily find English speaking playmates. A major factor in giving minority children access to social interactions with English speaking peers is upgrading the status of the minority group in the eyes of the majority. One way to do this is to recognize the value of the minority group's language and culture, for example, by using the language in the school and by hiring teachers and administrators from that ethnic background. A salubrious side effect of bilingual programs has been this kind of upgrading of previously stigmatized languages and cultures, as a result of making them official within the school.

Social interaction with English speakers can contribute to children's learning English. But just putting minority children

in mainstream classrooms does not ensure interaction. Submersion in mainstream classrooms is most likely to result in rapid progress in English for children who do not come from negatively stereotyped minority groups, and for children who have strong language, literacy, and school-relevant skills in their native language. Other children need bilingual programs.

Conclusions

Basic research is often dismissed as irrelevant to practical problems. We feel, though, that much information of importance to policy makers in the area of bilingual education has emerged from research motivated by theoretical questions about language and cognition. Some conclusions we would draw based on our knowledge of the research literature are:

- * Evaluation research, although of extremely poor quality, suggests that bilingual education is superior to submersion education in many educational contexts.
- * One major goal of bilingual education should be the development of the full repertoire of linguistic skills in English, in preparation for participation in mainstream classes.
- * Time spent learning in the native language in bilingual education is not time lost in developing English.
- * Children can become fluent in a second language without losing the first language, and maintenance of the first language does not retard the development of the second language.
- * There is no cognitive cost to the development of bilingualism in children; very possibly bilingualism

enhances children's thinking skills.

- * Bilingual education programs should have the flexibility of adjusting to the large individual and cultural differences among children. Furthermore, educators should develop the expectation that it is not abnormal for some students to need bilingual instruction for relatively long periods of time.
- * Educators should expect that young children will take several years to learn a second language to a level like that of a native speaker. At the same time, they should not have lower expectations of older learners, who can typically learn languages quite quickly, and often end up speaking them just as well as younger learners.
- * Particularly for children who on other grounds are at risk for reading failure, reading should be taught in the native language. Reading skills acquired in the native language will transfer readily and quickly to English, and will result in higher ultimate reading achievement in English.
- * A major problem for minority group children is that young English speaking children share the negative stereotypes of their parents and the society at large. Any action that upgrades the status of the minority child and his language contributes to the child's opportunities for friendship with native English speaking children.

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