Toward a new understanding of language minority students' experiences with bilingual education in the United States

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Résumé
La première partie de ce texte retrace le cadre historique du développement de l'éducation bilingue aux USA. Avant la première guerre mondiale, le pays a connu une ouverture à la diversité linguistique avec l'utilisation de plusieurs langues dans l'instruction publique. Le début des années 60 a été marqué par l'instauration d'une législation permettant l'utilisation de fonds publics pour l'éducation bilingue. Dans la deuxième partie, les auteurs décrivent les principales justifications théoriques utilisées pour appuyer l'éducation bilingue. La troisième partie résume l'évolution de la recherche sur l'éducation bilingue aux USA. Les chercheurs ont progressivement abandonné l'hypothèse des effets négatifs du bilinguisme pour travailler sur les avantages du bilinguisme sur le plan individuel et social. La quatrième partie du texte est consacrée à une tentative de classification des programmes bilingues pratiqués aux USA. Les auteurs ont identifié deux principaux types de programmes d'éducation bilingue: les programmes de remédiation/ségrégation et les programmes d'intégration/enrichissement. La dernière partie du texte est consacrée à une réflexion sur les perspectives futures de l'éducation bilingue. L'association étroite des familles et la transformation de l'ensemble du curriculum devraient permettre à tous les élèves de grandir avec deux langues.

Bilingual education in the United States (U.S.) is socially and historically situated. Theoretical perspectives and empirical research illuminate the debate on bilingual education, but these efforts alone cannot fully account for its successes and failures. Bilingual education is affected by public policy and social traditions, and because policy and traditions change, bilingual education is dynamic.

Problematically, there is a time-lag from the social context of emergence to that of maintenance. Consequently, when bilingual education is linked to the structure of the society in which it emerged it reveals how its very nature perpetuates bias in favor of the majority culture and against minority cultures. Bilingual education, therefore, is predominantly considered an issue for ethnic minority students. Thus, the focus of this paper is to review bilingual education in the U.S. as it is experienced by minority students.

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Highlighting social and historical contexts may lead us toward a new understanding of bilingual education. This approach casts contemporary bilingual education in a new light and provides a framework for transforming existing historically-based practices into communally-based practices of global learning. From this revised position, achieving goals of bilingualism, biliteracy, and biculturalism for everyone, minority and majority students, may be possible. An historical overview provides the context for reviewing theory, research, and practice, before synthesizing these dimensions and suggesting a new approach to bilingual education.

History of Bilingual Education in the U.S.
The beginning of bilingual education in the United States is often placed in the 1960's and 1970's. These decades were marked by the Bilingual Education Act of the 1960's and the landmark case Lau v. Nichols in 1970. Although significant, these events did not initiate bilingual education. As Seymour Sarason (1990), a prolific writer on educational reform in the U.S., expressed, in the process of social change there is always a beginning before the beginning. A century earlier, children in the United States were being taught in more than one language; German, French, and Spanish were used to instruct students (Canales & Ruiz-Escalante, 1992; Lopez, 1995). For example, "between 1880 and 1917, German-English bilingual schools, in which both languages were used for instruction, operated in Ohio, Minnesota, and Maryland" (Lopez, 1995). Thus, bilingual education in the U.S. began in the late-1800's.

Nationalism grew in the U.S. during the first world war and combined with anti-German sentiment, influenced educational issues that led to the cessation of education in languages other than English; state laws were enacted that prohibited the use of the German language in all public settings, including elementary schools where teachers were no longer permitted to provide instruction in German (Canales & Ruiz-Escalante, 1992). These sentiments, along with laws created, illustrate a link between nationalism and monolingualism. A contemporary illustration of this link is the English-only movement that prospered (or became visible) in the conservative national period of 1980's.

From the early 1900's until the middle of the century the use of the English language for school instruction was mandated. At this time the family taught children one language while the school taught children another. Thus, minority children received a bilingual education, although it was rarely recognized as such. In the early 1960's, as the U.S. experienced a shift in political context, the perspectives on the role of language in education also shifted.

Progressively, an awareness of the interdependence of civil rights, women's rights, environmental concern, and peace issues (e.g., movement against the Vietnam War), converged with common awareness of social dislocation and optimism about the role of government in facilitating social reform (Kelly, 1990). The focus on bilingual education in the schools during the early 1960's, therefore, is a consequence of many movements converging. Immigration for economic opportunity and political exile, Civil Rights, and the United Farm Workers movement contributed to post-war (World War I and World War II) transitions in society in general, and education in particular. These changes along with newly allocated federal funding coalesced into changes in educational policy, specifically for students who had been labeled as having limited English proficiency or as being a member of a linguistic minority group.

The number of language minority children grew rapidly as a result of economic and political immigration. For example, immigrants from Puerto Rico and Mexico came to the U.S. for work while many others were exiled from Cuba and found refuge in the U.S. At the same time, initially unrelated to immigrants themselves, the Civil Rights movement gained momentum and was a determining force in legislating equal opportunities for African Americans. This movement resulted in the Civil Rights Act of 1964, which prohibits discrimination by color, race, religion, or national origin in the use of public facilities and schools.

Using the Civil Rights Act as a platform, other minority groups, particularly Latinos, pushed for the use of their native language in public schools as a method of allowing their children equal opportunity to public education. It should be noted, however, that Spanish is not just a language of recent immigration. Spanish came to the U.S. before English in a large part of the southwest and played the role of dominant language until the American-Mexican War (1846-1848). Prior to the Civil Rights movement bilingual education was conceptualized and generally intended for immigrant populations.
Meanwhile, indigenous language diversity was ignored. The movement in the decade of 1960 highlighted the disparity between indigenous and imported diversity, and ignored the fact that the English language was also imported.

Effects of the Civil Rights movement were seen in legislative changes, and the bilingual education movement followed the same path. The Bilingual Education Act of 1968 Elementary and Secondary Education Act provides overarching goals and government funding for bilingual programs; however, the Bilingual Education Act did not provide specific guidelines for achieving these goals. Consequently, legal action ensued and in 1974 the U.S. Supreme Court decision obligated school districts to remove language barriers that effectively exclude linguistic minority children from full and equal opportunities in public education. This legislation was and continues to be an instrumental component ensuring implementation of bilingual education that serves an increasing and ever-changing population for whom English is not a first language.

Initially, Spanish-speakers were the first beneficiaries of bilingual programs. This is not surprising considering that in 1990 Spanish speakers accounted for 54 percent (17,339,172) of the total non-English speaking population (31,844,979) while the next largest group of non-English speakers (French speakers) comprised five percent (31,844,979) of the total population (230,466,777). The 1993 U.S. Census Bureau, 1993). Although Spanish was (and continues to be) a majority minority language, the 1993 census reported 21 languages representing the almost 32 million people with

linguistic, ethnic, and racial minority background. More than one third of population growth since 1980 is a result of immigration. During the last decade, the schools' population has moved from a predominantly White, middle-class, English-speaking student body to one of a more diverse, multilingual and multicultural composition. In 1997, more than 145 languages were represented in classrooms, far more than the 21 languages reported by the 1990 census. By the year 2000, Hispanic persons in some regions of the U.S. will represent the majority population (PEREZ & DE LA ROSA SALAZAR, 1993). The U.S. Department of Education (1991) reported that the size of the population of limited English proficiency students is variable from one state to another. The five states with the highest percentage of limited English proficiency students in total enrollment are: New Mexico (22 percent); California (18 percent); Texas (nine percent); Arizona (nine percent); and New York (six percent) (U.S. Department of Education, 1991). Three-fifths of these students speak Spanish. Along with increased population, funding for bilingual education has also increased.

Between 1969 and 1992, the federal government spent approximately $2.7 billion on bilingual education. During the past 20 years funds allocated to bilingual education increased from 20 million dollars in the beginning of the 1970's to almost 200 million dollars in 1992 (CANALES & RUIZ-ESCALANTE, 1992). Obviously there was an increasing trend in expenditures for bilingual education, even if these figures were adjusted for inflation. This spending pattern may seem to reflect a commitment to bilingual education, but whether funding was equivalent to commitment is open to interpretation and controversy.

As in many other countries (e.g., Canada and Switzerland) the debate about bilingual education is controversial. Rosalie Pedalino Porter, past coordinator of Bilingual and English as a Second Language in predominantly Spanish-English programs in the U.S., is a prominent voice in the contemporary controversy. A look at the recent debate on bilingual education requires an examination of Porter's (1996) controversial book, Forked Tongue. First written in 1990, the book contributes to the debate on bilingual education by politicizing and critiquing bilingual education programs and studies. Porter criticizes studies for comparing students rather than programs and for not pretesting students. These two points are valid criticisms of research if the objective is to investigate effects of various types of bilingual education programs.

Porter fails to mention, however, that another critical component of matching students for program evaluation (in addition to pretesting) is matching children's

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4 Two other topics, Native American languages (indigenous languages to the U.S.) and Ebonics (a dialect used by many African Americans), within linguistic diversity are not directly considered in this paper, although some bilingual education programs include a few of the many Native American languages. Addressing the use of Native American languages in bilingual education is a challenge that is very near to the center of modern public education in the reservation. Unfortunately, experience shows that some Native American languages have been lost (SLOAN, 1997, personal communication), and others may be progressively lost as well. Inherent to the loss of languages are many lessons.

5 Linguistic diversity in the U.S. is not only a language issue. It is also about dialects. The controversy about Ebonics pushes us to think about the cultural diversity in the U.S. Specifically, linguistic diversity has to be analyzed through the historical non-egalitarian relationship between African American and European American cultures. Unfortunately, due to space considerations for this article these important aspects are not addressed.

6 Approximately 13.8 percent (31,844,979) of the total U.S. population (230,466,777) are non-English speakers.
background. Not only does Porter not consider family, social, and economic factors, but she does not extend her initial critique (about program comparison and pretesting) to studies that she selected, supposedly, to support her argument. Consequently, Porter's argument in favor of bilingual immersion (i.e., where class instruction is predominantly in English) is based on an argument that she initially denounced. Following are three examples that we selected from the many examples Porter used to illustrate our critique of her interpretations.

First, Porter presents findings from a study by the Southwest Educational Development Laboratory: a six year longitudinal study of 250 Spanish-speaking, limited English-speaking children in six Texas schools whose progress was followed from kindergarten through third grade. Some findings of this study cited by PORTER (1996) are predictable:
- Children who started school with well-developed oral-language skills in either Spanish or English had an advantage in learning to read.
- Enrollment in the Spanish reading program generally had a negative correlation with learning to read in English.
- Knowledge of the English alphabet upon entering kindergarten was strongly related to successful reading performance in grades one through three.

More interesting findings are:
- By the age of five most children have gained control of their first language (Spanish) for all practical purposes.
- Students who learned to read first in English transferred their reading skills to Spanish more easily than those who started reading in Spanish and tried to produce the opposite transfer.

Porter concluded that "these findings indicate little evidence for teaching reading in the home language first" (p.65).

The results of this study, however, are inconclusive considering that pretesting students, matching students' background on socioeconomic status, and particular program characteristics are not specified. Even if Porter recognizes that some transfer occurred between Spanish and English, in the Texas study, she added that the transfer may not be possible between non-western script and the Roman script. Specifically, Porter claims that mastering Arabic, Chinese, and Japanese alphabets takes longer than mastering the Roman alphabet and speculates that the transfer theory⁷ is not applicable due to differences in the rate of mastering the alphabet. Given that children whose first language is Arabic master the alphabet at the same rate as those whose first language is English, Porter's conclusions about transfer theory are unsubstantiated.

Second, Porter cites a three year study in Texas with 2500 students in grades one through three who are classified as limited English proficiency. All of these students were from Spanish-speaking backgrounds with comparable economic backgrounds. Half the students were enrolled in a transitional bilingual education program where reading, mathematics, and others subjects were taught in Spanish. The comparison group was in an alternative experimental bilingual immersion program where English was used in the classroom as the language of instruction from the first day of school. All academic content was taught in English and Spanish was used only to reinforce new concepts. PORTER (1996) reported that the bilingual immersion students scored significantly better on standardized tests in reading and language than students in the transitional bilingual education program. However, because students were not pretested, it cannot be concluded that immersion programs produced better academic outcomes than transitional bilingual education programs. Again, Porter provided examples of studies that did not meet the criteria she initially established for evaluating bilingual programs.

Third, another longitudinal study from Florida reported by Porter had a sample of 508 limited English proficiency students from kindergarten to second grade. These students were randomly assigned to different schools where one group received academic content taught in Spanish and the other group was taught with a special curriculum for limited English proficiency students. In the comprehensive test for basic skills, both English and Spanish versions were used to compare these groups. The author did not find a statistically significant difference between these two groups. Within the Spanish group, students in the program for one year scored better than those who were in the program for longer than one year. Teachers reported that students' attitudes toward learning did not differ between groups. In our opinion, interpretations from this study are biased because it was conducted within the context of segregation. That is to say, Latino children are separated from all other mainstream students, and consequently, it is expected to find that students who are outside of the Spanish program do better because they are less stigmatized (or less labeled). Labeling by itself may produce negative effects (HOBBS, 1975). Beyond issues highlighted by our selection of PORTER'S (1996) book, another phenomenon often present in the debate on bilingual education is the language hierarchy.

⁷ Transfer theory is the concept that abstract language skills mastered in the first language facilitate acquiring skills in subsequent languages. Refer to the Theoretical Framework section of this paper for more detailed information.
Advocates of assimilation sometimes make value judgments of languages that result in ranking languages. Arbitrarily claiming that one language is better, learned faster, etc., than others is directly related to devalued statues of some languages relative to others, which may lead to segregation of language programs. In other words, when one language, for example English, is seen as more valuable than another language, for example Spanish, then it becomes possible for education in Spanish to be subordinated to that of English. As a result, the structure of school is defined by English and other languages (in the example given, Spanish) are candidates for programs within the school. Thus, value judgments affect what happens at the school level. These value judgments may also be made at the family level. For example, if a family places a child in a Spanish-reading program, implicit in that decision is a special relationship with the Spanish language. Consequently, research that is portrayed as experimental cannot be experimental because children are not randomly assigned; other factors, such as value judgments about languages, influence parents' choice of a particular program.

In concluding the historical overview, Spanish was the dominant language of the southwestern U.S. until 1848. After that time many languages were used in the U.S. and bilingual education began in the late-1800's and flourished until the first world war when nationalism and anti-German sentiment contributed to the enactment of laws that prohibited the use of languages other than English in public settings. Thus, forty years (approximately 1880-1917) of bilingual education in schools were followed by forty years (approximately 1917-1960) of monolingual education in schools. During the 1960's the establishment of the Civil Rights Act combined with other social movements and increased immigration contributed to revitalizing bilingual education in schools and culminated in the Bilingual Education Act of 1968. Subsequent years have resulted in a significant increase in government funding of bilingual education. Not surprisingly, the last forty years have been filled with controversy and debate about bilingual implementation, its effects, and how it should be implemented. Unfortunately, one product of recent history has been the labeling as a problem of students whose first language is not English, or more specifically as limited, a challenge to the curriculum, and a burden to teaching resources.

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8 In the last section we will elaborate differences between school structure and school programs.

**Theoretical and Conceptual Debate**

Before advancing theoretical frameworks, we must differentiate between bilingualism and bilingual education. Bilingualism is at the individual unit of analysis while bilingual education is at the group unit of analysis. Bilingualism is a state of an individual; bilingual education is a process of education by using two languages and is the institutionalization of bilingualism. Thus, traditionally bilingual education is discussed at the institutional, or school, level. However, education and school (i.e., institution of schooling) are not necessarily monolithic. Four principle theoretical frameworks provide insight into bilingualism and bilingual education: linguistic interdependence, vernacular advantage theory, transfer theories, and sociolinguistic and sociocultural theories.

**Linguistic Interdependence**

Advocates of the linguistic interdependence theory argue that minority children could only learn new concepts in various academic subjects if they were taught in their home language. Cummins (1979) suggests that children can learn English for social use quickly, but need five to seven years before they develop the conceptual expertise in English.

The linguistic interdependence theory points out the importance of the role of native language in conceptual development. However, we observe that the number of native languages in the world is larger than the number of languages used in school. If we agree with the linguistic interdependence theory, a larger number of school children would not have access to conceptual development. In addition, the language used at home may be very different than the school language even inside one language (Heath, 1982).

The linguistic interdependence theory also seems to exaggerate the number of years needed to develop conceptual expertise. It assumes that translation negatively affects conceptual development. However, we consider that expertise in translation may facilitate conceptual development rather than hinder it. Piaget (1937,1964) points out that conceptual development results mainly from the physical interaction between child and environment.

**Vernacular Advantage Theory (First Language First)**

The vernacular advantage theory posits that competency must be developed in the native language before developing a second language (Skutnabb-Kangas & Toukomaa, 1969). Therefore, children who do not know the language of the
school should be instructed in their native language for a period of time while they are learning a second language. Students who are taught all their school subjects in their native language will not fall behind in learning school subjects. Delaying the start of a second language may avoid the semilingualism (imperfect learning of two languages).

This theory underestimates the capacity of children mastering two languages. Behind this theory is the idea that we need a first language and implicit in this is the fear of imperfect learning of two languages. However, it is normal to have imperfect language; it is a process of using language. In the vernacular advantage theory the focus seems to be on the decontextualized use of language as opposed to social or communicative competence.

**Transfer Theory**

Another theory used to justify bilingual education is that children will learn to read best in a language they know well and they can later transfer these skills easily to reading in a second language (HAKUTA, 1986).

Inside of the transfer theory are two important notions: interlanguage and code-switching. Interlanguage is central in the explanation of bilingual-learner language or second language acquisition. DURAN (1994) suggested that "[i]nterlanguage may be viewed as an adaptive strategy in which the speaker tries to speak the interlocutor's [first language] although he has little proficiency in it" (p. 70).

Code-switching is the use of two languages simultaneously or interchangeably. It implies some degree of competence in the two languages even if bilingual fluency is not stable. Code-switching may be used to achieve two things: fill a linguistic/conceptual gap, or for other multiple communicative purposes. While in some places and cases code-switching is the exception, in many bilingual communities it is and should be seen as the norm. It appears that where code-switching is the norm, it is perceived as fluid, unmarked, and uneventful, and where it is the exception it will be perceived as marked, purposeful, emphasis-oriented, and strange (GYSELS, 1992; SWIGART, 1992; VALDES-FALLIS, 1977).

HAKUTA (1990) suggests that language proficiency is not unitary, but rather consists of a diverse collection of skills that are not necessarily correlated: "a distinction must be made between functional skills used in interpreting language which draws on context from language removed from context. Contextualized language occurs in oral and written forms, as does decontextualized language. Skills used in interpreting contextualized, face-to-face conversational settings develop more rapidly than skills needed to interpret decontextualized language (oral or written). Verbal academic skills, which are crucial for success in school, are needed most often for the purpose of interpreting decontextualized language." (HAKUTA, 1990, p. 4).

Advantages of the transfer theory include a greater understanding about metalinguistic and metacognitive processes. In an applied sense, transfer occurs through autodidactic (independent or autonomous) learning. However, the extent to which learning occurs is affected by the degree of transfer, not only from one language to another but from autodidactic learning to learning in social interactions. Therefore, a major limitation of this theory is the inattention given to the nature of language acquisition being socially situated. Also, there is disagreement among scholars whether transfer occurs differently among dissimilar languages than among more similar languages (e.g., Chinese-French and Spanish-French).

**Sociolinguistic and Sociocultural Theory**

VYGOTSKY (1962) pointed out in his book, *Thought and Language*, that in processes of cognitive development, language is crucial for determining how the child will learn to think since advanced modes of thought are transmitted to the child by means of words. In other words, thought and language inform each other (VYGOTSKY, 1962). According to VYGOTSKY (1978) there are a number of developmental events that occur within a learning situation that he called the "zone of proximal development: [...]The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).

As the school expects children to follow a single developmental model in acquiring uses of languages, those who are situated further away from the language of schooling (i.e., schooling is outside of their zone of proximal development) are disadvantaged. As HEATH (1986) suggested, "[w]e must bear in mind that the cultural learning of each primary social group is only a relatively small and arbitrary selection of the possible set of behaviors (including ways in which language is used) of which a human infant is capable. Similarly developmental models endorsed by schools represent an arbitrary and limited set of choices made by primary social groups to a greater or lesser extent to which learning occurs is affected by the degree of transfer, not only from one language to another but from autodidactic learning to learning in social interactions. Therefore, a major limitation of this theory is the inattention given to the nature of language acquisition being socially situated. Also, there is disagreement among scholars whether transfer occurs differently among dissimilar languages than among more similar languages (e.g., Chinese-French and Spanish-French).

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between the kind of language uses chosen by the school and those developed in the family and community” (p. 151).

HAKUTA (1990) traces the evolution of our understanding of learning from empiricism to formal cognitivism, to a greater sensitivity of cognitivism, and presently to the context in which learning occurs. The empiricist version of second language learning dictated a transfer of habits from the native language to the second language. Similarities between the two languages were seen as facilitating learning (positive transfer), and differences were thought to cause interference (negative transfer). The empiricism paradigm takes the view that the linguistic "reflexes" of the two languages are in competition with each other. In other words, learning a second language entails suppression of the habits of the first language, or that keeping the first language will impair learning the second language. Formal cognitivism considers that knowledge is highly domain-specific and species-specific. The child has an “innate Language Acquisition Device that takes imperfect and incomplete linguistic data as input and produces highly detailed and abstract knowledge of linguistic rules as output” (HAKUTA, 1990).

Recently, society and the role of the teacher became prominent in guiding the interrelationships between the various capacities of children (such as thought and language). In addition, cognitive psychologists increasingly were positing "executive functions" that oversee ordinary cognition, and highlighting the development of executive function awareness (known technically as "metacognition") in children. Finally, important overlaps between language and a variety of functions, including discourse, literacy, and social class became more salient as interdisciplinary inquiry flourished.

In conclusion, we consider that the theoretical and conceptual debate shifted from a deficit paradigm (minority language student viewed as a problem) to an enrichment paradigm where language minority students are perceived as a learning resource in context, for all minority and majority students.

Research: Balance mitigated

All research of social science phenomenon is faced with challenges of multiple systems and interactions among these systems. When considering the phenomenon of a child's education - in this case bilingual education - interaction among systems is particularly relevant as a child begins education within a family system before entering a school system. For this reason, investigating the effects of bilingualism requires researchers to consider multiple factors influencing a child's development, although this approach has not been employed until recently. Consequently, qualitative data are needed to better understand the phenomenon of bilingual education, both its processes and outcomes.

Therefore, this review highlights qualitative research that attends to processes as well as outcomes. (Notably, there is a relative dearth of qualitative research.) Some research from quantitative studies is also included because of the influence findings from these studies have had on development of bilingual education programs. As other authors have noted (DIAZ, 1985; HAKUTA, 1990; KRASHEN, 1991) to understand the phenomenon of bilingualism and bilingual education it is necessary to look at both research content (i.e., findings) and research methodology.

Taken as a whole, findings from case studies, quasi-experimental studies, and action research in bilingualism seem inconsistent and often contradictory. However, by considering research methodology, theoretical underpinnings, and historical context research findings seem more consistent and less contradictory. From this perspective, research may be grouped into three distinct periods: (a) negative effects period (c. 1920-1950); (b) cognitive and linguistic effects period (c. 1960-1990); and (c) sociocultural historical effects period (c. 1985-present).

a) Negative Effects Period

Fear of confusion of the child and interference with language development were characteristic of sentiments expressed about bilingualism by researchers and the general public beginning in 1920 until the late 1950's. Researchers of bilingualism predominantly reported that bilingualism was related to negative effects on performance of intelligence tests and vocabulary tests (HAKUTA, 1990) suggests that the study of bilingualism has not been exempted from the scholarly tendency to create dichotomies. Some of them refer to characteristics of individuals: coordinate vs. compound bilingualism, early vs. late bilingualism, simultaneous vs. successive bilingualism, and others to characteristics of social groups: elite vs. folk bilingualism, additive vs. subtractive bilingualism. Linguists and psychologists have paid primary attention to the individual mental and cognitive properties of bilinguals; linguists and sociologists have attempted primarily to characterize social groups in terms of the configuration of the languages with respect to robustness, prestige, and other sociological and institutional features.

10 It is very helpful to use HAKUTA's description of theoretical change in bilingual education. HAKUTA (1990) suggests that the study of bilingualism has not been exempted from the scholarly tendency to create dichotomies. Some of them refer to characteristics of individuals: coordinate vs. compound bilingualism, early vs. late bilingualism, simultaneous vs. successive bilingualism, and others to characteristics of social groups: elite vs. folk bilingualism, additive vs. subtractive bilingualism. Linguists and psychologists have paid primary attention to the individual mental and cognitive properties of bilinguals; linguists and sociologists have attempted primarily to characterize social groups in terms of the configuration of the languages with respect to robustness, prestige, and other sociological and institutional features.

11 Two case studies are exceptions (cf. RONJAT, 1913; LEOPOLD, 1949). These case studies reported greater cognitive flexibility and advanced conceptual development. Leopold, eminent linguist, insisted that not only did bilingualism not interfere with development but it is an asset to development. This claim was based on the idea that because children learn to separate sounds of
presented as intellectual deficits or language handicaps related to exposure to
more than one language (i.e., bilingualism). For example, YOSHIOKA (1929), in
a study comparing bilingual Japanese American children in California to
monolingual Japanese children in Japan, reported all bilingual children scored
below the norm on a Japanese intelligence test. In a different study, BARKE &
PERRY-WILLIAMS (1938) reported that bilinguals have poorer vocabulary than
monolinguals. Research findings from this era have been critiqued for
methodological problems. Specifically, participants' socioeconomic status was
not controlled and methods of assessment were likely to be culturally biased.
Subsequent research addressed these and other limitations, and findings reported
bilingualism was related to positive cognitive and linguistic development,
although fear of confusion of the child are still present among the general
population.

b) Cognitive and Linguistic Effects Period

Between 1960 and 1990 bilingualism was found to positively affect vocabulary
(cf. PEAL & LAMBERT, 1962), analytic skills (BEN-ZEev, 1977), analogical
reasoning (DIAZ, 1983), cognitive tasks (BAIN & YU, 1980), and intellectual
skills (HAKUTA, 1990, 1986). In addition to research on outcomes (i.e., effects)
of bilingualism, CUMMINS' (1979) research investigated mechanisms of
bilingualism and significantly contributed to our knowledge of technical aspects
of second language acquisition at the individual unit of analysis. Research
during this period also investigated between-group and within-group differences
through studies in Canada (CUMMINS, 1979) and the U.S. (HAKUTA, 1986,
1990), in addition to cross-cultural research in Israel and the U.S. (BEN-ZEev,
1977) and Alsace, Alberta, and Hong Kong (BAIN & YU, 1980). Thus, research
consistently reported bilingualism as having positive cognitive and linguistic
effects and hypothesized how these effects are produced within the individual.

For example, BAIN & YU (1980) found cognitive effects mediated by
language (overt and covert self-instruction). Bilingual children 46-48 months of
age performed significantly better on cognitive tasks with a self-instruction
component than monolingual counterparts; there were no differences on
cognitive tasks without self-instruction. Children were matched on parents' 
"class, education, and lifestyle" (p. 307).

HAKUTA's (1990) work provides an example of between-group and within-
group comparisons. He postulated that bilingualism is associated positively with
greater cognitive flexibility and awareness of language. Comparisons of
bilingual and monolingual children (i.e., between-group), as well as
comparisons of bilingual children of varying levels of development (i.e., within-
group), indicate that bilingualism can lead to superior performance on a variety
of intellectual skills. These range from performance on tests of analysis of
abstract visual patterns to measures of metalinguistic awareness: the ability to
think abstractly about language and appreciate linguistic form rather than
content.

Looking at student's individual scores, HAKUTA (1990) has pointed out that
cross-language transfer of skills and knowledge occurs globally rather than
piece by piece. HAKUTA (1990) argues that expertise in translation exists in all
bilingual children, demonstrating considerable ability to transfer regardless of
content:

"Striking evidence for the permeability of information across languages can
be found in the skills of translation and interpretation, activities that many
bilingual children find themselves performing for family members,
schoolmates and others on a daily basis. There was no evidence of confusion
between the two languages, even though in normal conversations with their
bilingual friends, they engaged actively in switching between their two
languages (code switching)" (p. 7).

Our critique of research during this period centers around how research
findings were applied. Specifically, much of the work between 1960 and 1990
was focused on technical aspects of second language acquisition at the
individual level of analysis but was applied at the program level. This
incongruence of taking findings from one level of analysis and applying it to
another level of analysis is problematic in applied research. Additionally,
Cummins' work which was situated in Canada substantially influenced program
development in the U.S., although the language context differs significantly
from that of the U.S.: French and English, the languages of the Canadian
context, are more symmetrical in social value than Spanish (to take the
predominant example) and English in the U.S. context. SLOAN (1996), in a
chapter on research methods for developing countries wrote of the need to
consider contextual mediators. This is also the case for research in pluralistic
developed countries when working with multiple populations, especially those
who may be marginalized or disadvantaged. Contextual mediators in the case of
bilingual education would include families, for example. Thus, findings from research during this period show specific skill-related effects at the unit of the individual, and, as the previously quoted text illustrates, sociocultural effects at the unit of family and community were apparent although not the foci of studies.

c) Sociocultural and Historical Effects Period

During the mid-1980's some researchers began to shift their focus away from cognitive and linguistic effects. Two types of research that characterize this period are student achievement and program comparisons. Research of student achievement investigates bilingual education at the individual level (comparing students pre- and post-test scores) and program comparisons evaluate differences between transitional bilingual education and immersion. Some bilingual education programs incorporate sociocultural and historical aspects of a bilingual experience. Thus, research began to shift from focusing solely on cognitive and linguistic effects to incorporating sociocultural and historical effects as well.

In order to compare various bilingual programs meaningfully, OLSON (1989) elaborated a method called hierarchical component analysis which can be used to assess long term effects of various academic components (English as a second language, reading and writing in Spanish, other subjects taught in Spanish, such as cultural history). Using this technique, OLSON found that programs with an ancestral/cultural component showed a positive trend in upward academic achievement, both between and within groups.

In the same sense, CUMMINS (1987), in the book *Empowering Minority Students*, recognizes the importance of encouraging the language minority student to feel a sense of control and efficacy over personal actions and learning situations, both in school and outside of the classroom (cf. ZIMMERMAN, 1995). CUMMINS (1986) has also suggested that students whose culture is validated tend to perform better in academic subjects. He further suggests that fundamental relationships between educators and minority students and between schools and communities must be significantly altered in order to empower students and thereby lead to educational success. To create an empowering setting, all stakeholders (i.e., relevant persons) must actively participate (FREIRE, 1985; PRILLELTENSKY, 1994). The research in the late 1980's and 1990's moved toward an action research paradigm. Two studies exemplify this move.

The first was conducted by DIAZ, MOLL & MEHAN (1986) in a school south of San Diego. They switched from separate lessons in Spanish and English to an integrated approach. English reading lessons were transformed for both the teacher and students into a qualitatively new teaching/learning environment.

"The new environment made reading comprehension lessons global. Social and linguistic resources were strategically provided to assist Spanish-language students to operate at a conceptually higher level in English. This procedure contrasts with prevailing lessons that subordinated reading comprehension to practice in oral English skills. The teacher concentrated on comprehension as the primary goal at a level comparable to the students' Spanish reading skills, while directly addressing language-related difficulties in the service of that goal. By creating this zone of proximal development for reading, the children were able to comprehend in English at a level that approximates their comprehension in Spanish. This improved experience represents a three-year jump in participation in English reading" (DIAZ et al. 1986, p. 208).

The second study, by BOYD-BATSTONE (1996), was conducted in an elementary school in California where 97 percent of students were identified as limited English proficiency. From teaching in a Spanish-English bilingual class by a transmission approach, BOYD-BATSTONE moved to an appropriate transactional approach suggested by students' behavior. The transmission approach was based on reading through a selected story and identifying various conventions of story structure: setting, characters, events in order, problem, solution and so forth. However, when students began to challenge the text, the transmission approach was inappropriate for engaging them in the literacy. In contrast, the transactional approach involved students in a creative process that required more active involvement by generating text from their own life experiences.

"BOYD-BATSTONE's experience with the transmission approach follows: She read the story, "The rabbit and the Turnip" to the students. "The story was about a hungry rabbit who finds an orange turnip in the snow at Christmas time; she encounters a hungry donkey and gives away the turnip; the donkey encounters another hungry animal and gives away the turnip... and so on until the turnip winds up in the paws of the generous rabbit who shares the turnip with her friends...[the end.]" BOYD-BATSTONE noticed that students were not attentive to the story, and she asked them why. The students responded that turnips do not grow in the snow and that turnips are not orange. These comments led to a discussion about turnip farming in Mexico.

Transactional instruction invited bilingual students to bring to light how they live by examining their cultural experiences (cf. FREIRE, 1985). This is vitally important in light of the need for bilingual educators to provide culturally
responsive instruction: "[l]earning becomes a two-way undertaking when transactional instruction happens in the classroom. Listening to the students as they authentically respond to a text becomes the first act of instruction" (BOYD-BATSTONE, p. 190). This approach gives a voice to students who did not previously have input into the process of schooling; it is an important beginning to changing the structure of schooling and a critical component of research (MARTÍN-BARO, 1994).

OLSON (1990) suggests a strong interpretation of the inconsistency in research findings. She points out that bilingual education programs measured during the late 1960's and early to middle 1970's that were associated with positive results may have been, at least in part, measuring the beneficial effects of reading and writing in Spanish, ancestral/cultural history, and English as a second language, when appropriately administered to students. Programs showing negative results may have been assessing the effects of other subjects (content) taught in Spanish during this time period and English as a second language inappropriately administered to students.

To conclude our discussion of research in bilingualism and bilingual education, it seems that, in general, the extant research does not produce definitive findings, but produces methodological discussions. Many authors critique the methodology of these studies and research studies that follow commonly attend to methodological errors. A general critique is that quantitative research may generate interesting findings but may not have very strong practical consequences. In response to this critique some researchers employ qualitative approaches. Although shifting from quantitative to qualitative research (or combining the two) is a step in the right direction to attempt to clarify research in bilingualism and bilingual education, researchers must be cautious not to fall into the temptation of thinking that qualitative text alone will lead us to a new understanding; it will not. Specifically, there is a danger in doing qualitative research of stopping at discourse when what we need to do is action research - with all its challenges and limitations - which optimally combines knowledge and practice (ARGYRIS, PUTNAM & SMITH, 1985).

Practice of Bilingual Programs
Determining the distinguishing characteristics of bilingual education programs is an effective way to understand variations in programs and program evaluations. The overarching goal, pedagogical approach, and structure of programs are three major domains that differ fundamentally among bilingual education programs. Additionally, variations in available resources and approaches to achieving the overarching goal further delineate bilingual education programs from one another; these may be considered minor domains. Using the major domains, bilingual education programs may be codified into either a category of remedial/segmented programs or integrated/enrichment programs.

Remedial/Segmented Programs
The overarching goal of a segmented program is mainstreaming children who speak languages other than English into English-only instruction (i.e., assimilation). A component approach that presumes mastering decontextualized fragments and subsequently piecing them together characterizes the pedagogical practice in segregated programs. In other words, the teaching of language is divided into parts such as spelling, grammar rules, and repetition exercises. Classes are also divided in these programs. Specifically, classes for non-English speaking students are separated from classes for English speaking students. This separation may be minimal, as is the case of English second language pull-out programs, or appreciable, as is the case of transitional bilingual education programs.

As mentioned above, these differences reflect variations in resources and approaches to achieving the overarching goal. For example, the core of a pull-out program teaches content in English and, also, teaches English as a second language peripherally - students are pulled out of class - as remedial instruction; native language is minimally used.

Similar to pull-out programs, transitional bilingual education programs teach English directly in a separate language class; however, transitional programs differ from pull-out programs by teaching all other classes in the students' first language. Progressively, instruction in the English language is broadened by teaching academic content (initially one subject) in English while using the students' native language for instruction or when needed for elaboration. Exposure to English instruction is increased gradually, varying from five to seven years, by introducing new academic subjects mainly in English.

The authors suggest that the effects of remedial/segmented bilingual programs may be comparable to negative side-effects from medication in the treatment of illness. Labeling or identifying someone as limited produces...
consequences that counteract movement toward the goal of mainstreaming and facilitating academic achievement. Thus, even if we agree with the goal of mainstreaming, we must attend to the approach to achieve this goal. In this case, labeling, which occurs through using programs that segregate students, plays against mainstreaming. In fact, both student and teacher suffer from the long term effects of labeling.

**Integrated/Enrichment Programs**

Integrated/enrichment programs developed from the concept of immersion. As THOMAS & COLLIER (1997) point out, "immersion programs emphasize the less dominant language more than English in the first years, because the minority language is less supported by the broader society, and academic uses of the language are less easily acquired outside school" (p. 24). In contrast to a remedial/segregated program, the overarching goal of an integrated/enrichment program is to promote the practice of bilingualism. A communicative, or whole language, approach where context is believed to facilitate learning depicts the pedagogical practice of integrated programs. In this case, language is not divided into components of grammar and structure as in segregated programs, but is represented in its entirety. Classes, like language itself, are combined in these programs. Moreover, in integrated/enrichment programs minority languages are valued, unlike in remedial/segregated programs where minority languages are perceived to have transitional value. Thus, integrated/enrichment programs have common goals, pedagogical approaches, structure, and minority languages are valued. Although these features are shared, there are differences in integrated/enrichment programs that vary by student resources and use (in time and intensity) of the languages.

**Canadian-style Immersion**

Canadian-style immersion is one type of an integrated/enrichment program in which students are mostly monolingual. The language of immersion is the minority language and its value is relatively equal to that of the majority language. Age of entry into the program and time of instruction in the minority language are also defining characteristics. Early immersion begins between ages four and five, and late immersion begins between ages ten and twelve. Instruction is given either entirely in the second language (i.e., total immersion) or partially in the second language. Consequently, there are four possible combinations of age and time that shape these types of Canadian-style immersion programs: (1) early entry + total immersion; (2) early entry + partial immersion; (3) late entry + total immersion; and (4) late entry + partial-immersion. In Canadian-style immersion, middle-class English-speaking children receive much of their subject-matter instruction through a second language (French) and efforts are made to ensure that what is heard is comprehensible (KRASHEN & BIBER, 1988). Children in these programs learn subject-matter successfully and acquire competence in French. The goal of Canadian-style immersion is bilingualism, not the replacement of one language with another.

**Structured Immersion**

A slightly different type of an integrated/enrichment program is structured immersion. This program is an U.S. adaptation of the adopted Canadian-style immersion program. An advantage of structured immersion over transitional bilingual education is that the value of both languages is similar. As described by GERSTEN & WOODWARD (1985), structured-immersion has these four characteristics:

1. Comprehensible subject matter instruction to second language acquirers.
2. Use of the first language when necessary for explanation, but this is kept to a minimum.
3. Direct instruction of English (the second language) grammar.
4. Pre-teaching of English vocabulary.

**Two-way Immersion**

Contemporary immersion programs are sometimes called two-way immersion or dual-immersion. The objective of these programs is bilingualism for everyone. An important distinction between structured immersion and two-way immersion programs is that to have two-way immersion the classroom composition must be a ratio between 50/50 and 50/50 of the students who speak the languages involved. For example, a commonly found Spanish-English two-way bilingual program is composed of 50 percent Spanish-speaking students and 50 percent English-speaking students. These programs, though relatively new, make important advancements over predecessor programs by including the entire student population and achieving literacy in both minority and majority languages. "This holds true for students of low-economic status, as well as African American students, and language minority students" (THOMAS &...
Toward new approaches in bilingual education

To move toward a new understanding of bilingual education, it is necessary to work within the intersection of two spheres, school and family, which are embedded in a larger sphere, the sociocultural context. The principle theoretical proposition from which this new approach begins is that education in general, and bilingual education in particular, occurs in multiple settings that are inextricably linked. Therefore, we criticize approaches that view the process of education as only a function of formal schooling without any consideration given to more natural ways of cultural transmission, such as oral traditions and communities of practice rather than reading and writing decontextualized content in encapsulated classrooms.

Successful experiences usually work on the level of formal education. For example, as mentioned above, when working in the school sphere there are two conceptualizations, remedial/segregated programs and integrated/enrichment programs. With remedial/segregated programs, linguistic diversity is regarded as a problem that must be fixed, and this is a primary goal of curriculum developed specifically for minority students. In integrated/enrichment programs, linguistic diversity is a central resource for the whole classroom and shapes the whole curriculum.

Looking at the other sphere, minority families' value of language may be viewed on a continuum between an overvaluation of native language and a devaluation of the native language. The consequence of overvaluation, at one end of the continuum, leads to separatism. On the other end of the continuum, the devaluation of the native language may lead to switching to English only.

In the larger sphere, the sociocultural context has a duality between instrumentalism and commonality. With regard to language, instrumentalism is using another language simply to get economic benefit. In contrast, commonality employs language and culture in the service of social life, in other words, as a tool in a community of practice (LAVE & WENGER, 1991). To increase the sociocultural productivity (SERPELL, in press) of bilingual education, we suggest working within the intersection of school and family spheres. A natural consequence of working in the intersection is that both school and family will change.

As mentioned above, the ultimate goal of two-way immersion programs is biliteracy. This effect may be achieved through a process of valuing both languages and by using children as language experts. It is a way of achieving biliteracy through an egalitarian relationship between the actors of bilingual education within a traditionally conservative institution. In order to be a resource and to value own's native language, minority students need to read in
their own language. As CUMMINS (1981) writes, reading provides much of the "common underlying proficiency" that helps ensure English language development for minority students. In addition, a reading habit in the first language will, most likely, transfer to the second language. Finally, reading contributes a great deal to advance first language development.

Using children as resources, the approach to literacy must be socioculturally relevant. In this way literacy is expanded beyond language to the sharing of cultural artifacts. Naturally, families become involved and, thus, are a resource for the school as well. In the past, school has been perceived as a resource for the family but not the other way around; a typical communication was one-way from the school directed to the family. Realizing the need to change this imbalance of power, during the past thirty years many scholars have proposed increasing the level of family involvement, but as yet only small strides have been made in this area. Bilingual education provides a pathway to increased involvement from families and improved relations between the family and school. For example, propositions such as "home-school isomorphism" (RUZ, 1990) and "fusion of horizons" (SERPELL, 1993) may be put into practice in bilingual education.

RUZ (1990) suggests that minority students do not achieve in school, in large part because the structural and normative patterns of the home and the school differ radically from each other. Success in school, therefore, will depend on the extent to which the home and the school come to resemble each other in these patterns, or to what extent "home-school isomorphism" (RUZ, 1990) is approximated. Home-school isomorphism seems to have general appeal as an approach to solving problems of minority group school achievement. This is true regardless of the level of analysis or the groups studied. It is applicable to elementary, secondary, and adult education. The caution given to it is the extent to which there is mutual accommodation in the process of change. In other words, if the home and the school are to become more like each other in the interest of minority school achievement, is there a disproportionate amount of change expected on one side or the other of the relationship? Often, such proposals for change assume the fundamental goodness of the school, while families and their communities are seen as the source of the problem. In that case, it is only reasonable to expect that homes will imitate schools more than vice versa, since the interest of the student supersedes any sentimental attachments we may have to maintaining traditions that may hinder academic achievement. These propositions and frameworks are not abstract constructs but provide a foundation for practical applications for implementation of bilingual education.

Conclusion

As a traditional country of immigration and language diversity, the U.S. is a rich laboratory of bilingual education. A passionate debate between scholars, policy makers, and citizens occurs regularly. In this paper we tried to understand the implications and consequences of growing up with more than one language in the U.S. A bilingual, bicultural child is able to perceive the world from two different perspectives. She or he benefits from double cognitive development that leads her or him to be less egocentric, and probably has a specific intellectual development different from that of a monolingual child. A bilingual child sees a language as one particular meaning system among many others and is well-placed to have an awareness of cultural diversity. The debate on bilingual education is also a debate on language policy and race relations, and a debate about the meaning of the nation. When one says nation, behind this word is a language, a flag, an army, a president; so the debate on bilingual education is also about national identity. There is a structural relationship between the formation of a nation and monolingualism. In other words, the question is how we can live together as harmonious nation with many languages.

The common perception (the lay perspective) on bilingual education, like many other things, is very hard to change. Statistics illustrating this point are not readily available, but we think that many persons still believe that bilingualism is equivalent to linguistic confusion and may lead to serious intellectual handicaps for students. Although the lay perspective in the U.S. has not changed, most educators and researchers expect research to provide a solution.

Unfortunately, research has failed to provide a consensus on the fact that a bilingual education is better than a monolingual education. In particular, quantitative research is focused on the individual level of analysis, specifically cognitive development rather than a broader conceptualization of education. Also, many studies using quantitative methods failed to control for group differences in socioeconomic status between bilingual and monolingual samples. Therefore, findings from these studies are not easily generalized to the practice of bilingualism. In contrast, qualitative research and action research go

17 Even if many constitutions mention several languages as national languages, for example, Switzerland and Canada, the constitutional bilingualism is in fact an addition of monolingual territories.
beyond the individual level of analysis and produce good results on the local level, although these are with small samples. Findings from qualitative studies, however, are limited in their generalizability. Thus, going from the local school level to the level of the school system remains challenging. Therefore, as both researchers and practitioners, we need to move beyond looking at bilingualism through a singular lens, such as individual cognitive effects or program effects, and instead examine the interactive nature between bilingual education and the relevant sociohistorical context.

References


