CHAPTER II

Literature Review

Controversy surrounds all aspects of bilingual education. Political pressure surges from public reaction to bilingual education programs, often forcing public officials to limit support for such programs. Politicized research agendas have produced evaluative research findings both for and against bilingual education programs, and the theoretical positions taken on the interaction of mind and language have clashed throughout the twentieth century. Bilingual education, then, is mired in disputes between scholars, politicians, educators, special interest groups, and the wider public. Though Crawford (1995) points to the need for more basic research to strengthen the field against such forces, Hakuta (1989) suggests that such an effort should be an interdisciplinary one. The solution proposed here is that of an anthropological effort: Hymes’ ethnography of speaking, with frames as the unit of analysis. This anthropological approach is both interdisciplinary and sensitive to the contexts surrounding bilingual children. It examines bilingual children as participants in two sociocultural systems.

Political Pressures

When President Clinton set America’s education goals for the year 2000, he had in mind American students’ international leadership in math, science, and critical thinking. Schools, though, have increasingly had to turn to another problem: students’ proficiency in English. Many students now lack proficiency in the academic English necessary for successful schooling. Nearly 3,000,000 school students speak a native language other than English. Their numbers are expected to grow. Though most of these students are concentrated in six states, notably California, Florida, New York, and Texas, many are now showing up in school districts away from heavily populated or urban areas. Census data lists 533 counties around the United States as having substantial numbers of limited English proficiency (LEP) students: at least 5% of the population or 500 students designated as limited English proficiency (GAO, 1994). Though over 70% of these students are Spanish speakers, many now speak any number of South East Asian languages.

The rhetoric from the Republican led Congress has not always called for support of bilingual education, an endeavor which has become increasingly costly for the Federal government (GAO, 1994). In 1998 the 105th Congress introduced or considered over 17 bills that aimed to directly legislate the English language and its role in public education and government functions. None of these has yet passed.

The New American Citizenship Act (H.R.3341), for example, would require that citizenship applicants demonstrate proficiency in the English language. The National Language Act (H.R.1005), introduced to the House on March 11, 1997, would make English the official language of the United States. Organizations such as US English and English First have been lobbying Congress to pass this legislation. So far, the bill has gathered over fifty sponsors in Congress. Proponents of English Plus stand opposed to such a measure: the organization
advocates embracing America’s diversity by supporting both ESL and bilingual education programs. (Lewelling, 1997)

Most threatening to bilingual education, though, has been the English for the Children Act (H.R.3720), which seeks to repeal the Bilingual Education Act passed in 1968. The bill would, if passed, cut off any Federal support for bilingual education. Part of such a measure would be increased support for English as a second language (ESL) and English immersion programs, but bilingual education would no doubt be in jeopardy at public schools.

The passing of Proposition 227 last spring in California indicates growing popular opposition to bilingual education. The Proposition repeals bilingual education in the State of California, requiring language minority students to be placed in ESL programs, or what are officially titled English immersion programs. Proponents of the bill, as does the bill’s author, Unz, see bilingual education as depriving language minority students of English language skills. (“What is the real problem?,” 1998) Thus, Unz and members of Congress see ESL instruction as the answer to educating America’s growing number of language minority students. King (1997, April, v. 279) attributes much of the anxiety about bilingualism to American perceptions of the Quebec problem, of Quebec’s recent but failed resolution to separate from the Canadian union.

As a news article in the San Jose Mercury News (“What is the real problem?”, 1998) suggests, the issue is far from decided in California. California voters have opted to legislate the language (Bazley, 1998), but fewer than one-third of the state’s language minority students have even made it into a bilingual education program. Wiley (1997) reports this limited availability as being a nation-wide problem, citing the following statistics from the Center for Education Statistics: “Three quarters of limited English proficient students receive ESL instruction, while only one-third to one-half of these students receive any instruction in their native language [bilingual education programs]” (1997, p. 3).

In California and other parts of America, the bilingual education programs that are available often do not reach those who need them. But the programs available are not necessarily bilingual programs: “The lack of precision of this term is, in fact, one the problems faced by researchers in the field” (Casanova & Arias, 1993, p. 17). Compounding the matter further is the national shortage of qualified bilingual education and ESL teachers (Crawford, 1997) and instructional materials (GAO, 1994). Therefore, there is great variation in the kinds of programs available and the quality of instruction.

Lucas and Katz (1994) describe the controversy surrounding bilingual education as divided into two camps: (1) assimilationists, who oppose bilingual education, and thus advocate an English-only stance, and (2) pluralists, who support bilingual education and the use of foreign languages as a valuable resource. Lucas and Katz comment on the intense feelings generated between these two groups:

The emotional and political nature of the debate between linguistic and cultural pluralists and assimilationists makes it all the more important to gather evidence from research to help in understanding the roles of students’ native languages in schooling. (Lucas & Katz, 1994, p. 542)

Only hard empirical evidence can help solve the dispute between the two groups.
Bilingual education rouses strong feelings for and against. Collier (1995) argues that the conflict between the assimilationists and the pluralists rages in part over an oversimplification:

Much misunderstanding occurs because many U.S. policy makers and educators assume that language learning can be isolated from other issues and that the first thing students must do is to learn English. (Collier, 1995, p.1)

To the assimilationists, the matter has always presented an easy solution: students either learn English through immersion or through ESL classes. Pluralists, however, do not see any easy solutions to the problems facing bilingual education.

Leading bilingual researchers question the effectiveness of ESL for limited-English proficiency students. Krashen (1996) reminds us that ESL is largely instruction in the use of the English language, focusing mainly on conversation. A key component in ESL classes is explicit instruction in grammar and vocabulary.

ESL develops competent speakers. It aims to train nonnative speakers in native speaker patterns of intonation and pronunciation, grammar and sentence construction, and reading and writing skills. ESL has traditionally been linked closer to linguistic theory than pedagogy; throughout much of the twentieth century students have been taught English through formal grammar instruction. When children learn ESL, though, they do not automatically acquire the kinds of language necessary for successful schooling (Krashen, 1996).

Krashen (1992) does not, however, oppose English instruction. He points to the need for matching levels of language proficiency with a child’s development (Krashen, 1992). This is where Krashen and other bilingual proponents have often been misunderstood. ESL programs are proposed as but a single method of improving bilingual childrens’ chances for successful schooling, not as sole instruction in the English language, but as English instruction combined with content area instruction (Krashen, 1992).

Effective bilingual education programs can actually speed up learning, for literary skills do transfer across languages (Crawford, 1998, Krashen, 1992; Hakuta, 1986). Hakuta concludes: “Reading skills acquired in the native language will transfer readily and quickly to English, and will result in higher ultimate reading achievement in English” (Hakuta, 1986, p. 20). Interacting with English texts within an ESL classroom only enhances the transfer.

Crawford clarifies Krashen further: “Like other researchers in the field, Krashen advocates English instruction from day one in bilingual programs, but at a level students can understand” (Crawford, 1998, p. 2). Successful language learning requires comprehensibility of input. Learners need to comprehend linguistic patterns in multiple situations before producing those patterns (Krashen, 1982). Consequently, comprehending classroom messages depends on learners’ levels of proficiency. Without an adequate level of English, though, an all English classroom may even impede a bilingual child’s development.

Bilingual education programs facilitate the transfer of content concepts and skills. Krashen (1992) explains how an effective bilingual education program fosters both concept and language development. He offers the following example:
A limited-English-speaking child who has had a good math background will acquire more English and more math in the English-language math class than the limited-English-speaking child whose math background is poor. (Krashen, 1992, p. 355)

Hakuta (1990) cites further evidence in support of the observation that “in general, the content transcends language” (p. 14). There is also evidence that this transfer of skills is global, that entire conceptual-operational domains or schema cross languages (Hakuta, 1990). Nevertheless, the transfer does depend on first-language literacy and proficiency (Hakuta, 1990).

Cummins (1986), in agreement with Krashen (1992) and Hakuta (1990), models language proficiency along two dimensions. On one dimension Cummins polarizes context-embedded language and context-reduced language. Cummins reminds us that much of daily conversation relies on any number of nonlinguistic signals: gestures, facial expressions, and the suprasegmentals that indicate speech tone or mood. Such communication, Cummins tells us, “derives from interpersonal involvement in a shared reality which obviates the need for explicit linguistic elaboration of the [speech] message” (Cummins, 1986, p. 153). The written language of textbooks, however, lacks many of these cues.

The other proficiency dimension is that of cognitive involvement, with Cummins’ (1986) line drawn from that of reduced cognitive involvement, in which comprehension of communication does not require any inference beyond the message contents, to that of the cognitively demanding, which requires some inference to comprehend information communicated. Cummins (1986) pictures this line “in terms of the information that must be processed simultaneously or in close succession by the individual to carry out the activity” (1986, p. 154). In a particular sense, we may think of this as how much a person can attend to, store in short-term memory, and conduct mental operations on.

![Figure 2.1: Cummins’ Model of Language Proficiency](Borrowed from Cuevas (1996))
Cuevas (1996) clarifies Cummins’ model of language processing with some examples. In the upper left corner Cuevas (1996) offers an example of a child “reading a story book with a picture” (p. 8). The upper left quadrant may be identified as the narrative quadrant, the quadrant where ample contextual cues aid comprehension.

Much of the focus of ESL instruction falls across that, in the upper right quadrant. Cuevas’ (1996) examples include students making requests in the classroom, or responding in rote fashion to a teacher’s problem. The quadrant is the zone for social interaction: the kinds of linguistic demands necessary for oral communication. The kinds of classroom activities falling within that quadrant include administrative tasks, peer interaction, and what personal needs a student may need to communicate to a teacher.

Literacy falls within the bottom half of the model. To the right are simple literary tasks, such as filling in forms, writing notes to colleagues, reading labels on bottles. It is the zone for routine literacy: literacy that does not demand thought beyond the execution of the task. The kinds of mental demands necessary for more complex literacy, beyond the routine management of information, falls within the lower left quadrant. Cuevas (1996) lists here reading an essay or writing a dissertation. Successful achievement in school, notes Cummins (1986) requires attention to the kinds of tasks and literacy that are context-reduced and cognitively demanding; however, the popular option of ESL programs tends to keep students in the upper right hand corner.

To sum up, these leading researchers do not share the same assumptions that English-only proponents do. They indicate that ESL programs do teach the English language, often effectively; nonetheless, proficiency resulting from an ESL program refers to fluency in context-embedded language: the upper right quadrant. ESL takes learners to a level where they can communicate with their peers, negotiate meaning on the playground, and perform all the daily administrative needs of the classroom. But it does not instruct students in the more decontextualized language of schooling. Such an effort falls under the practice of bilingual education.

If Cummins and Krashen were to advise the President on the bilingual education crisis in our schools, they no doubt would suggest making as much use as possible of the students’ native languages. Both advise that that which is cognitively demanding, which is abstracted from context, is easier to acquire through the native language first (Crawford, 1997; Hakuta, 1987). Entry into the lower left quadrant is most effective through the native language. Unfortunately, many opponents of bilingual education see this principle as threatening the stature of the English language in America. People in America speak English, or the country falls dangerously close, as President Theodore Roosevelt once quipped, to a polyglot boarding house.

The English language in America is not in trouble (Krashen, 1996). On the contrary, immigrants are eager to learn English; proficiency in English is seen by many as the avenue for success in this country, for themselves and for their children. Bilingual opponents insist, though, that unless these immigrants are placed in English language classes, the country faces possible balkanization. Both researchers would answer, in contrast, that ESL instruction is about making correct sentences and improving accents, not about academic language. Crandall (1985) describes the shortcomings of standard ESL instruction:
Their [ESL students] seeming communicative competence and fluency are deceptive; although they can talk with their peers, engage in formal conversation with their teachers, read simple narratives, or write informal notes or letters, they are not able to deal with the more abstract, formal, contextually reduced language of the texts, tests, lectures, or discussions of science, mathematics, and social sciences. (1995, p. 6)

So language minority students need much more than the English language to succeed academically, though ESL can contribute toward fluency by providing the social-interactive skills necessary for conducting academic tasks (Cuevas, 1996).

Still another researcher in the bilingual education debate points out a controversy in the field itself. With the heightened politics surrounding bilingual education, much of the research, as previously suggested by Crawford (1995), has been evaluative. Basic research, says Hakuta (1990, 1986), is necessary for tempering the controversy: “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” (1986, p. 9). So various groups continue to lobby back and forth over the efficacy of bilingual education. Crawford (1998) predicts: “… the ‘what works’ controversy is unlikely to subside anytime soon” (p. 3).

**The politicized research**

Bilingual education research stands heavily politicized. (Casanova & Arias, 1993; Schnaiberg, 1997) The research often involves large-scale efforts bent on answering a single question: Which is better, English-only or bilingual education? Measures, though, of bilingual-bicultural groups tend to lack control over a number of variables, including differences in ethnicity, language proficiency, first language literacy, and program instructional methods. Consequently, the research has both been for and against bilingual education.

Padilla (1990) asks bilingual educators to shift their attention from evaluative concerns to classroom questions:

Rather than pursuing the timeworn question of whether “bilingual education works,” it is important to ask how new educational technologies can be used in the classroom and how instructional features that make use of cognitive-based theories can be made relevant to bilingual and foreign language teachers. (1990, p. 18)

The real problem with bilingual education research, as Padilla understands it, is the lack of coherent paradigm: “a profound lack of theoretical coherence or unity” (1990, p.19). A consensus is missing on how a bilingual learner goes about using two languages. Padilla (1990) raises the question: “How can instruction be designed and implemented that maximizes the linguistic, cognitive and social exchanges between students who come from different home language backgrounds?” (1990, p. 22) Such a consensus requires a paradigm combining cognitive, linguistic, and cultural factors.

Compounding the matter further, research in bilingual education is a relatively new field. Before the Bilingual Education Act was signed in 1968, little research had been done on bilingualism or bilingual education. As Hakuta (1990) and Padilla (1990) already stated, a
coherent picture of the nature of bilingualism is still emerging. Most educators still consider bilingual education a marginal topic of study, and as a result the field lacks talented researchers (Schnaiberg, 1997).

An added reason may be the nature of research into bilingualism or bilingual education: the topic demands an interdisciplinary approach combining psychology, anthropology, linguistics, and educational theory (Edwards, 1994). Kagan and Garcia describe the research as fragmented: “Knowledge is scattered among diverse disciplines: developmental psychology, cognitive psychology, psychology, early childhood education and linguistics” (1991, p. 14). For those researchers more comfortable with questions easily accommodated to narrow and easily controllable study designs, bilingual education is not an attractive area. True experimental designs with randomized sampling are quite difficult considering the number of potential threats that may creep into a study on bilingual education.

Casanova and Arias (1993) come to the same conclusions as Hakuta (1990) and Padilla (1990):

Several idiosyncracies characterize bilingual education as a field of study: the paucity of researchers who must cover a wide interdisciplinary range, the marginalizing of bilingual educational research, and the broad spectrum of language and age levels encompassed by bilingual education. (1993, p. 19)

Drawing a coherent picture of bilingualism involves pulling together a range of social, cognitive, and language variables. For this reason, Casanova and Arias (1993) also see Vygotsky as a useful perspective for integrating “the experiences of children in all learning environments, including the home, the school, and the local community” (1993, p. 28). Moll emphasizes the use of Vygotskian psychology: “One of the most interesting and important contributions of Vygotskian psychology is the proposal that human thinking must be understood in its concrete social and historical circumstances” (1990, p.319). Casanova and Arias (1993), Hakuta (1990), and Padilla (1990) all point to a Vygotskian paradigm as an answer to the idiosyncracies plaguing research into bilingualism.

The politics surrounding bilingual education and research has demonstrated another bias: what groups of bilinguals are appropriate to study. Research is also necessary for examining bilinguals from other language groups (Schnaiberg, 1997). With over 70% of the bilingual population in America speaking Spanish and English, a strong need has existed for research into bilingual education for that group. Yet with the growing number of Chinese and other Asian speakers coming to this country, the need arises for attention to these groups as well. Even the Deep South today is facing large increases in Asian immigration. USA Today (“New Face of the South,” 1998) reports US Census Data showing a 70% population increase for Georgia, 62% for North Carolina, 49% for Tennessee, and a 50% jump for Texas. In other words, these traditionally conservative states are seeing increasing numbers of Chinese, Japanese, Korean, Taiwanese, and Vietnamese arrivals.

With the rising numbers of limited English proficient children now arriving at our schools, at a time when school reform is a priority at the nation’s highest offices, a basic understanding of the nature of bilingualism is critical. At a time when, as Collier reminds us, “… we are still struggling to identify the most effective education practices” (1995, p. 1) a
portrait of the social and cognitive dimensions of bilingualism could clarify to educators and policy makers how languages and minds come together in the schooling institution.

If LEP and LM students are to develop the level of critical thinking necessary for reaching the National 2000 goals, a new understanding of bilingualism must combine language and thought in society. It requires a service beyond the capabilities of the ESL classroom. If we as educators are to answer the President’s call for preparing today’s school children for tomorrow’s demands, the basic research called for by Casanova and Arias (1993), Hakuta (1990) and Padilla (1990) will be essential.

**Theoretical controversy**

Controversy has also surrounded the theoretical principles necessary for a study of bilingualism. Four theoretical controversies have taken place during the twentieth century. It has been popular practice to dichotomize the controversies, such as that of Vygotsky’s (1978) social child versus Piaget’s (1926) egocentric child, or of Chomsky’s (1968) innatism versus Skinner’s (1958) behaviorism. Wittgenstein, too, has been dichotomized: the early positivist Wittgenstein (1958) versus the later social Wittgenstein (1958). But as the following chart indicates, each of the participants in these controversies is not easily placed.

<table>
<thead>
<tr>
<th>Theory</th>
<th>View on Mind</th>
<th>Role of Society</th>
<th>Nature of Language</th>
<th>Role of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chomsky</td>
<td>Cartesian linguistics</td>
<td>Independent conceptual domains</td>
<td>Limited- strong innatist stance</td>
<td>Abstract rules of grammar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Deductive: to arrive at abstract, universal principles.</td>
</tr>
<tr>
<td>Piaget</td>
<td>Constructivist</td>
<td>Sensorimotor schemas &amp; mental operations</td>
<td>Interactive role- influence on equilibrium</td>
<td>One of many symbolic systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inductive: observation</td>
</tr>
<tr>
<td>Skinner</td>
<td>Radical behaviorism</td>
<td>No causal role: mind as behavior</td>
<td>Strong role: evolutionary perspective.</td>
<td>Mediational tool, functional in activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inductive &amp; experimentalist</td>
</tr>
<tr>
<td>Vygotsky</td>
<td>Socio-cultural</td>
<td>Mind as social medium</td>
<td>Strong role: mind as social</td>
<td>Serves a regulatory role</td>
</tr>
<tr>
<td>Wittgenstein</td>
<td>Language-games</td>
<td>Mind as social medium</td>
<td>Strong role: mind as social</td>
<td>Conceptual tool</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Descriptive</td>
</tr>
</tbody>
</table>

Figure 2.2

Theoretical positions of the participants in the mind-language debates.

Each of the participants does agree that human activity within the natural and social world is organized; there is a coordination of acts or episodes or mental representations that
somehow frame an activity. Where that coordination is derived from, though, has depended on the theoretical perspective. While Skinner, Vygotsky and Wittgenstein have looked toward society, Chomsky and Piaget have looked to mental representations and their abstract systems.

The first dispute was more an effort toward revision than controversy. In 1927 Vygotsky (1996) set out to modify principles of language and development proposed by the young Piaget (1926). Vygotsky’s (1996) purpose was to rework those principles within a Marxist-dialectical framework, toward establishing a science of psychology that served the then developing Soviet Union.

Vygotsky’s theory is rooted in a socio-cultural explanation of human action. Emphasizing Hegelian dialectical change, Vygotsky’s theory rests on a single law of development: “… children begin to use the same forms of behavior in relation to themselves that others initially used in relation to them” (Vygotsky, 1981, p. 157). Through the social interaction with caretakers, children gradually internalize the relationships by which adults originally had toward them.

Language for Vygotsky (1978) constitutes the medium of this internalization; it is through language and the functions language takes that external relations are transferred onto the mental plane: “All the basic forms of the adult’s verbal social interaction with the child later become mental functions” (1981, p. 163). Therefore, change moves from the outside in.

Acquiring the social mind extends as a long process over a number of developmental events (1978, p. 57). Vygotsky describes the process as one of “reconstruction” (1978, p. 57); tools, activity, and their corresponding social relationships are gradually reproduced on the level of an individual mind. The functional relationships of the people and objects surrounding the individual child are slowly internalized as mental operations. In short, cultural activity is assimilated as the strategies of thought.

By far the most powerful of those developmental events is the convergence of speech and thought, originally two parallel systems which become fused in the mind of the older child:

The most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity, two previously completely independent lines of development, converge. (Vygotsky, 1978, p. 24)

Speech, according to Vygotsky, gives the child the power to plan and regulate his or her world. This new ability for the child follows the law stated above: the child uses speech to regulate and interact with surrounding objects and people, then gradually can regulate and interact with objects on the mental plane.

Vygotsky claims that it is this planning function of speech that facilitates the development of higher mental processes (1978). Yet speech originates from its social use; speech as communication is gradually transformed to speech as expression of thought through regulation. The power to regulate, then, grows out of the power to communicate. It is on this point that Vygotsky sought to revise Piaget’s (1926) model.

Piaget (1926) models a dichotomy of language functions. There are first the egocentric functions that Piaget (1927) identifies as characteristic of young minds. Beginning with repetition, then moving to the monologue, the young child speaks for simple pleasure of
speaking; no effort is made to connect the sounds made with those around him or her. The collective monologue is that function that occurs when speech sounds are made in the presence of others, but no effort is made to influence others through the medium of speech.

It is when the child makes an effort to be understood, to communicate his or her view through other perspectives, that socialized speech begins (Piaget, 1926). The autistic condition of living confined within a single perspective gives way to the need to coordinate and adapt ones needs to other’s. Piaget (1926) places special emphasis on criticism: when a young child imposes their values on others, a greater explicitness and clarity is necessary for expressing speech. Piaget (1926) lumps the more instrumental functions together, so commands and requests are combined within a single category.

**Language Functions**

<table>
<thead>
<tr>
<th>Ego Centric</th>
<th>Socialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetition</td>
<td>Adapted</td>
</tr>
<tr>
<td>Repetition</td>
<td>Inform</td>
</tr>
<tr>
<td>Mono-ologue</td>
<td></td>
</tr>
<tr>
<td>Repeat</td>
<td>Exchange</td>
</tr>
<tr>
<td>syllables</td>
<td>talk to</td>
</tr>
<tr>
<td>and</td>
<td>the work</td>
</tr>
<tr>
<td>words,</td>
<td>and status</td>
</tr>
<tr>
<td>e.g. child</td>
<td>of others</td>
</tr>
<tr>
<td>gibberish</td>
<td></td>
</tr>
<tr>
<td>Thinking</td>
<td>Talk on</td>
</tr>
<tr>
<td>aloud.</td>
<td>the work</td>
</tr>
<tr>
<td>Talk about</td>
<td>and status</td>
</tr>
<tr>
<td>the self</td>
<td>of others.</td>
</tr>
<tr>
<td>with others</td>
<td></td>
</tr>
<tr>
<td>present.</td>
<td></td>
</tr>
<tr>
<td>Talk about</td>
<td>Talk to</td>
</tr>
<tr>
<td>the self</td>
<td>cause</td>
</tr>
<tr>
<td>with others</td>
<td>action.</td>
</tr>
<tr>
<td>present.</td>
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</tr>
</tbody>
</table>

**Figure 2.3**

Piaget’s language functions.

The question for Piaget is how egocentrism and socialization influence each other. Egocentrism is, for Piaget, “an illusion of perspective” (1926, p. 268). And it is an illusion that persists to some degree throughout life. “It is a spontaneous attitude which, at the beginning, rules the child’s psychical activity and which persists throughout life during periods of mental inertia” (1926, p. 271). But egocentrism decreases over time, as children learn to adapt to other points of view, in greater coordination of their point of view with others (1926). As the schemes and habits of mind develop greater coordination with other minds at increasingly abstract levels, the adult mind emerges. The illusion, however, never entirely disappears, but it is greatly diminished through dialog, argument and interaction with other minds.

In his revision, Vygotsky focuses on the origins of the functions of language. While Piaget emphasizes the autistic inclinations of the child mind, Vygotsky places the child mind firmly within social context, as an active, participating agent even before the onset of speech (Vygotsky, 1978). Vygotsky further contests that egocentrism is but a byproduct of development that serves no real purpose in development. As Piaget (1926) describes it, egocentrism imprisons the child within the confines of his or her own perspective, an illusion that accompanies thought throughout life. For Vygotsky (1978) egocentric speech paves the route for inner speech.
In summary, Vygotsky’s revision reverses Piaget’s scheme:

The primary function of speech, in both children and adults, is communication, social contact. The earliest speech of the child is therefore essentially social. At first it is global and multifunctional; later its functions become differentiated. At a certain age the social speech of the child is quite sharply divided into egocentric speech and communicative speech. (1996, p. 35)

Egocentric speech is not deleted from Vygotsky’s explanation. It is given an important intermediary function, transferring social language from communicative activity to mental activity.

Wittgenstein’s controversy takes the form of a personal conflict. Whereas the Austrian philosopher formerly advocated a mentalistic explanation, the later Wittgenstein criticizes mentalistic notions of language and thought. In his own words, Wittgenstein says:

The phrase “to express an idea which is before our mind” suggests that what we are trying to express in words is already expressed, only in a different language; that this expression is before our mind’s eye; and that what we do is to translate from the mental into the verbal language. (B.B. p. 41)

Wittgenstein wants to dispel the “temptation to think that there must be” some mental processes independent of the verbal expression (B.B. p. 41).

For Wittgenstein, there ultimately is no private language: even our innermost thoughts and words are within the bounds of the public domain: “An ‘inner process’ stands in need of outward criteria” (P.I. 581). As Erneling describes it, “thinking or speaking for oneself is parasitic on public language and is something one has learned while learning language” (1993, p. 349). We must look to the outer context: “Try not to think of understanding as a ‘mental process’ at all.- For that is the expression which confuses you. But ask yourself: in what sort of case, in what kind of circumstances ....” (P.I. 154). Language superimposes the public, cultural domain onto the inner mind. Meaning is found not simply in the head, nor in behavior, but in the standard conventions and customs by which we use language.

Toward establishing his later theory of meaning, Wittgenstein calls our attention to the use of words, the meaning found within the activity of their use. Wittgenstein explains: “Every sign by itself seems dead. What gives it life?- In use it is alive” (P.I. 432). With use a word performs a function: “The function must come out in operating with the word. ((Meaning-body.))” (P.I. 559). To this, Wittgenstein would add: “Language is an instrument. Its concepts are instruments” (P.I. 569). To understand how concepts mean, then, we must examine cases and contexts for word use. We must look to what the word does in speaking.

But words here, unlike in the earlier Wittgenstein, do not have direct, single correspondences with objects: a plurality of uses in a plurality of contexts help us to learn about

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1 B.B. refers to the Blue and Brown Books (1960). This text is the only one of Wittgenstein’s referred to here with page numbers. The other reference here, the Philosophical Investigations (1958) includes the paragraph number. Most of Wittgenstein’s writings were assembled as series of numbered paragraphs.
the concepts indexed by words. Words are, for Wittgenstein, the tools that help us to comprehend concepts:

Think of the tools in a tool-box: there is a hammer, pliers, a saw, a screw-driver, a rule, a glue-pot, glue, nails and screws. The functions of words are as diverse as the functions of these objects. (And in both cases there are similarities.) (P.I. 11)

Yet words are not simply used in this perspective. Words are used according to the social conventions and customs of a culture (P.I. 355). Words constitute a form of life (P.I. 19).

Close to the concern with word use is Wittgenstein’s attention to grammar. A rule, too, has use in language, acting as a “sign-post” (P.I. 85), indicating by which route a speaker uses certain words. The connection between the sign-post and the use is indicated by a behavior:

Let me ask this: what has the expression of a rule—say a sign-post—got to do with my actions? What sort of connexion is there here?—Well, perhaps this one: I have been trained to react to this sign in a particular way, and now I do so react to it. (P.I. 198)

Like the use words, though, rules of grammar are not simply used: there are conventions to their use, customs through which speakers display standard speech forms.

The concept of rule is a pluralistic one: there are a number of conventional uses. “To obey a rule, to make a report, to give an order, to play a game of chess, are customs (uses, institutions)” (P.I. 199). Schulte further clarifies: “One learns to follow the rule by being habituated to certain reactions and procedures so that one can perform them automatically” (1992, p. 117). So rules do not govern our behavior deterministically. Rules set limits.

Rules share a close relationship with agreement (P.I. 224). For the rules to work among speakers of a language, there need be established agreement over what the linguistic pattern may be, how the accompanying behavior is enacted, and how meaning can be assigned based on the criteria of the first two conditions. We are reminded, again, that “obeying a rule is a practice” (P.I. 202). Richardson describes criteria as evidence, public evidence by which speakers determine word meaning (Richardson, 1976).

All that has been discussed thus far points to episodes of activity that Wittgenstein terms the language-game. “Here the language-game is meant to bring into prominence the fact that the speaking of language is part of an activity, or a form of life” (P.I. 23). Washington describes language-games:

Language-games are created, persist, change, disappear, reappear, interact and sometimes conflict with each other. Language games extend from the simple such as: a greeting, a salute or a child’s game such as “ring around the rosie,” to the strings of language-games which are found in theoretical physics.” (1990, p. 8)

As forms of life, language-games themselves follow conventions and customs embedded in the daily activity of a culture. Language-games unite discourse and activity.

Some examples of language games listed in Investigations include cursing, giving orders, reporting events, guessing riddles, solving math problems, and translating languages. (P.I. 23).
Moreover, each game has a beginning, middle and end. “The game, one would like to say, has not only rules but also a point” (P.I. 564).

Central to the game concept is that of what Wittgenstein calls family resemblances. As concepts are examined through the use of words in language games, certain similarities and intersections arise among the various cases of a word’s use:

I can think of no better expression to characterize these similarities than “family resemblances”; for the various resemblances between members of a family: build, features, color of the eyes, gait, temperament, etc. overlap and criss-cross in the same way.- And I shall say: ‘games’ form a family. (P.I. 67)

A single concept indicates not simply a generalization to Wittgenstein, but a family of related words, as demonstrated through the various uses of the word referring to the concept. Concepts, word use, grammar conventions and language-games combine episodically as the customs by which language speakers think and act.

Research by Rosch (1973a) lends empirical support to Wittgenstein’s idea of family resemblances. Rosch reports an experiment done to test the internal structure of categories, which she describes as how close examples or cases of concepts come to a central, core meaning (1973a). Rosch found support for students consistently structuring categories along continuums of strong to weak examplars. The students consistently ranked examples of cases along similar orders from strong to weak representation. Rosch and Mervis (1975) report further support for Wittgenstein’s notion of family resemblances. Rosch and Mervis discover that “the more an item has attributes in common with other members of the category, the more it will be considered a good and representative member of the category” (1975, p. 582).

Rosch and Mervis (1975) find empirical evidence for what Wittgenstein took thirty years of internal dialog to decide: that how we know and how we communicate depend on concepts that have no clear cut boundaries. The early Wittgenstein (1958) embraced the long philosophical tradition of exploring concepts and language as having neat, definable boundaries to which truth or falsity can be applied. The later Wittgenstein, on the other hand, looks at conceptual boundaries not as fixed, but as fuzzy, their only proofs being found within the conventions of ordinary language.

The Chomsky-Skinner controversy, which took place eight years after Wittgenstein’s passing, featured a review written by the linguist Noam Chomsky in 1959. The article critiques Skinner’s Verbal Behavior. The review so successfully criticized Skinner’s model of language that it would become the only reference to what Skinner had to say about language. Sparzo observes that “many more people have read the review than the book” (1992, p. 231).

Buzzing with rationalism, the second half of the 1950’s was an era that Gardner would describe as the rediscovery of mind (Gardner, 1985). Mind was rediscovered in the form of conceptualization: Bruner, Goodnow and Austin (1956) provided a model of categorizing that would help explain the workings of mind. And mind was also rediscovered as a computer program. Newell, Shaw and Simon (1958) would merge mind and machine in a theory of human problem solving: “Our position is that the appropriate way to describe a piece of problem-solving behavior is in terms of a program” (1958, p.153). This is also the climate in which Minsky
Chomsky’s first contribution to the rationalist swing was published in 1957, titled *Syntactic Structures*. In the mechanical spirit of the cognitive revolution, Chomsky describes a grammar as a device, a mechanism that produces grammatical sequences of words (1957). For such a device to work effectively, argues Chomsky (1957), it must have the capacity to distinguish grammatical from ungrammatical sentences in a language. The chief aim of linguistics is to determine how such a device may work.

But Chomsky (1957) first argues for the independence of grammar. “I think that we are forced to conclude that grammar is autonomous and independent of meaning, and that probabilistic models give no particular insight into some of the basic problems of syntactic structure” (1957, p. 17). Chomsky does accept that meaning has some connection to grammar: “It is, of course, impossible to prove that semantic notions are of no use in grammar.” (1957, p. 19) Meaning is not ruled out. Chomsky does, however, insist that for the linguist to describe the grammar machine, grammar need be pried apart from all the behavioral noise surrounding grammatical sentences. The autonomy of grammar remains as the central principle in Chomsky’s model (1984).

That model is a Cartesian one. Chomsky affirmed his Cartesian roots in 1966 with his *Cartesian Linguistics*, proposing a Cartesian model of language that is grounded in a creative principle: the mind can generate an infinite number of sentences with finite means. To explain how such a mechanism works, Chomsky maintains two distinctions. The first is the construct of deep structure, where thoughts converge with language, filling in the contents of a sentence; and the construct of surface structure, where linguistic signals take their final form as the soundings of a language. For Chomsky, the deep structure is really an assembly of propositions: “It constitutes an underlying mental reality” (Chomsky, 1966, p. 36).

The other distinction, largely developed in other texts, is that of competence versus performance. Chomsky clarifies what the concern of the linguist should be, in pursuing a mentalistic description of grammar:

A record of natural speech will show numerous false starts, deviations from rules, changes of plan in mid-course, and so on. The problem for the linguist, as well as for the child learning the language, is to determine from the data of performance the underlying system of rules that has been mastered by the speaker-hearer and that he puts to use in actual performance. Hence, in the technical sense, linguistic theory is mentalistic, since it is concerned with discovering a mental reality underlying actual behavior. (1965, p. 4)

Thus the linguist aims to account for both the deep and surface structures of a language, not to explain what people actually say. Linguists work to construct a theory of competence, not performance. The concern is with the underlying language principles in speakers’ minds.

The attention to the grammar machine theorized in *Syntactic Structures* would shift to that of a language organ in the later Chomsky (1984). Chomsky would place linguistics within cognitive psychology, as the study of but one faculty of knowing: language, among many faculties. For Chomsky (1984), cognitive psychology is the study of mental representations and their operations as computations. The study of the language organ in terms of a universal
grammar, the faculty of language with its syntactic, semantic and phonetic representations, emerged as the new mission of the linguist. The autonomy of syntax and the need for a grammar to distinguish grammatical from nongrammatical sentences in a language has remained, but in more Cartesian terms.

Chomsky (1984) argues for a modularity of mind. Different domains of knowledge, or linguistic competence, all innately designed and organized according to domain-specific principles, make up a chorus of modules all contributing to a single mind. And with respect to their ontogeny and their status as a field of inquiry, these modules of mind are postulated along the same lines of the physical organs of the body, each organ self-contained and performing its own innately specified functions, but contributing toward a greater metabolism. Besides language, to name a few examples, are the visual system, the auditory system, conceptual systems, and others.

Before discussing Skinner’s position, it should be necessary to clarify some of his basic principles. Skinner’s radical behaviorism has been greatly distorted and misunderstood (Jensen & Burgess, 1997; DeBell & Harless, 1992; Cook, 1993; Sparzo, 1992). Skinner has been accused, for example, of being a black box theorist; however, Skinner (1982b) applies to private events the same principles that govern behavior in general. What Skinner (1982b) disputes is the Cartesian dualism of mind and body.

More importantly, Skinner (Sparzo, 1992) is not a stimulus-response psychologist. Skinner sees our previous experience as mediating present events. People are not passively acted upon by the environment. People react to changes in the environment in regular patterns of activity, and these patterns have consequences that affect the behavior’s future outcome.

Sparzo (1982) offers an acronym toward explaining Skinner’s episodic principle. The acronym Sparzo suggests is ABC (Sparzo, 1992, p. 228). By A is meant the antecedent events, or changes in the environment. B refers to a behavior linked to those changes. Skinner reminds us that the temporal sequence is not always immediate; a stimulus may lead to a behavior separated in time (Skinner, 1982). The C portion is the consequences of the behavior. Skinner (1957) describes activity episodes as featuring a functional unity. The three components coherently fuse as concerted action.

This functional unity is central to Skinner’s (1957) theory of language behavior. Skinner defines verbal activity as “behavior reinforced through the mediation of others” (1957, p. 2). Skinner adds that we need to look at the entire verbal episode, the interaction of speaker and listener in a single package of action. If grammar has a role to play in this, it is subordinated to the activity of the episode. And meaning plays a more central role in this model: “Meaning is not a property of behavior as such, but of the conditions under which behavior occurs” (1957, p. 14).

Within a speech episode, Skinner posits a functional unity between speaker and listener. Skinner (1957) lists the following language functions:

- Mands are instrumental functions that refer directly to their outcomes.
- Tacts are informative functions that refer specific events or object features.
- Echoic functions are repeated segments meant to reproduce speech.
- Textual functions are those that communicate through printed messages.
- Intraverbal functions are interpersonal functions for social interaction.
• Autoclites are grammatical functions necessary for regulating speech.

Like the later Wittgenstein (1958), Skinner (1957) presents a functional model of language. Skinner (1957) rejects any mentalistic explanations of language. He calls our attention to the episodic patterns of speech activity.

**Skinner’s taxonomy of language functions**

<table>
<thead>
<tr>
<th>Mands</th>
<th>Tacts</th>
<th>Verbal</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Echoic</td>
<td>Textual</td>
</tr>
<tr>
<td>Requests</td>
<td>Metaphors</td>
<td>Printed material</td>
</tr>
<tr>
<td>Commands</td>
<td>Metonyms</td>
<td>Dictation</td>
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<tr>
<td>Questions</td>
<td>Malaprops</td>
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<td>Advice</td>
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<td>Warnings</td>
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<tr>
<td>Calls to action</td>
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</tbody>
</table>

Skinner (1957)

Figure 2.4
Skinner’s Taxonomy of Language Functions

Skinner notes that “there are verbal responses still to be accounted for-- responses such as *if, that, as, therefore,* and *some*-- many of which strongly suggest the behavior of a directing, organizing, evaluating, selecting, and producing system” (1957, p. 312). That is, there is a controlling system implicated, and that controlling system is itself behavior. To this Skinner assigns the term autoclites, meaning self-styling, of which grammatical relations are an important part.

Skinner (1957) also ties the autoclites to the mind’s ability to self edit speech, an important regulating function by which a speaker revises speech forms through more effective co-ordination with other speakers. Echoing Vygotsky’s principle of development, Skinner notes that “a person controls his own behavior, verbal or otherwise, as he controls the behavior of others” (1957, p. 403).

Among the autoclites Skinner (1957) lists the descriptive autoclites, which is necessary for qualifying speech, with the help of such phrases as “I guess” or “In other words.” Relational autoclites refer to grammatical relations such as word order and case relations. The manipulative autoclites include simple conjunctions such as *and* or *but,* and the adverbial conjunctions: *moreover* or *consequently.*” The organizing and regulatory role of speech is enabled through the autoclitic devices.

A term used by Nilsen (1977) may help clarify the autoclites. Nilsen suggests the word operator. Operators include grammatical morphemes: the past tense marker, -ed, for example, or function words such as articles or prepositions, and word order. Naturally, there may be a combination of these operators, say word order and morphemic marker, to indicate grammatical relationships. As Skinner points out, operators signal meaning through conventional application
of grammatical makers. Though Skinner’s examples are in English, the highly inflected forms of such European languages as Russian, for example, would rely more on noun cases for their operators; or Mandarin Chinese relies on adverbial operators to mark time relationships. Operators generate grammar according to any of the autoclitic types discussed by Skinner.

None of this explanation was accepted by Chomsky (1959). Chomsky’s (1959) general charge against Skinner (1957) is that he is not doing science. He is engaging in establishing a taxonomy, but he is not explaining behavior. Skinner’s account of language can not be taken seriously, for it makes no improvement on previous scientific theories of language. Chomsky (1959) reviews many of the concepts germane to Skinner’s analysis, concluding that “if we take his terms in their literal meaning, the description offers no improvement over various traditional formulations” (1959, p. 574). In brief, Skinner offers nothing new for a study of language.

This scolding of Skinner impressed the minds of many a linguist, and few if any would consider it worthwhile to read a text on language written by a supposed S-R psychologist whose terminology was determined to be hidden explanations of more traditional linguistic explanations. Skinner himself remained silent about the controversy, which may have further convinced people to avoid the text. Of the rare time when Skinner (1982a) did respond to Chomsky’s charges, Skinner simply stated that he had been misunderstood. Certainly, Skinner’s functional explanation of language as organizing episodes of social or mental activity shares little in common with Cartesian linguistics. Chomsky removes linguistic competence from its social contexts toward conducting a more scientific investigation, describing it instead as a system of abstract principles following a universal logic written in our genes.

Unlike the other controversies, the fourth one actually included a face to face meeting of the participants. In October, 1975, Chomsky met with the man who started the language controversies so many decades before: Jean Piaget. They met at the Abbaye de Royaumont, near Paris, and argued over another way to dichotomize the language and mind relationship: innatism versus constructivism.

Prior to the symposium held at Royaumont, Piaget and Chomsky recorded their views in advance. Piaget (1980) wrote first, describing his psychogenesis of knowledge and its epistemological significance. In his remarks, Piaget (1980) first contrasts his views with other rival positions: empiricism’s claim that knowledge is merely perception and the innatists claim that knowledge is hardwired from birth. To the empiricists, Piaget would state his position of knowledge as activity: “Knowledge proceeds from action, and all action that is repeated or generalized through application to new objects engenders ... a ‘scheme,’ that is a kind of practical concept” (1980, p. 24). Piaget (1980) describes the innatist position as preformation. He sees preformation as logically unsound, implicating that knowledge could be traced back through phylogenetics to such simple life forms as the amoeba.

Like Skinner, Piaget (1980) places the heavier emphasis on organized activity within an environment, genetics having a minor role in development: “... the origin of logico-mathematical structures in their infinity cannot be localized either in objects or in the subject” (1980, p. 26).

Piaget holds two mechanisms responsible for development of the logico-mathematical structures. The first is that of reflective abstraction, which opens up new correspondences on a higher level; Piaget describes this as a reorganization of concepts on higher levels, successive reorganizations becoming more abstract. Its twin mechanism, constructive generalization,
“corresponds to empirical abstraction” (1980, p. 28). Piaget notes that this process moves from a condition of few cases to most cases.

The second document circulated in advance of the meeting at Royaumont was that of Chomsky’s (1980) reply to Piaget (1980). To Piaget’s first argument that mutations in phylogenetic history could not possibly have lead to a language faculty, thus negating the innatist position, Chomsky replies:

Although it is quite true that we have no idea how or why random mutations have endowed humans with the specific capacity to learn a human language, it is also true that we have no better idea how or why random mutations have lead to the development of the mammalian eye or the cerebral cortex. (1980, p. 36)

Again, for Chomsky (1980) physical organs are comparable to mental organs: faculties of mind are subject to the same laws of selection as the mind.

To Piaget’s (1980) dismissal of innatism as a rival explanation, that constructivism can explain language without recourse to an innate language faculty, Chomsky (1980) also disagrees. Chomsky’s response is that language can not be explained through the action of sensorimotor structures. Here Chomsky (1980) quotes from the philosopher David Hume, in saying: “In all of these cases we are, it seems, dealing with knowledge that derives ‘from the original hand of nature,’ in Hume’s phrase- that is, ‘innate knowledge’ (1980, p.48). In concluding his reply, Chomsky restates the position he would insist on throughout the symposium: “No specific proposals exist, to my knowledge, concerning such ‘generalized capacities,’ and it does not seem very likely, to me at least, that the linguistic properties in question reflect construction of sensorimotor intelligence or the like” (1980, p. 48).

As the proceedings got started, Piaget addressed Chomsky’s opening remarks on what would be called the fixed nucleus: the innate capacity to produce grammatical utterances. Piaget again notes his agreement with Chomsky of the rational origin of language and the similarity between his and Chomsky’s positions on transformations.

The fourth controversy disputes the nature of the fixed nucleus of the mind. Whereas Piaget (1980) sees the fixed nucleus as dynamically interacting with the environment through the mechanisms of equilibration or autoregulation, Chomsky’s (1980) version of the fixed nucleus is that of a stable, fixed, mechanism that is only triggered by the environment. Piaget (1980) sees the fixed nucleus dynamically, taking shape through senorimotor intelligence: “These structures could not be formed by an exact and detailed adaptation to reality” (Piaget, 1980b, p. 59). Piaget (1980) reminds us that he does accept some innate features to cognition, but what is innate to Piaget (1980) is that of the functioning, while structures are developed by accretion through the mechanism of autoregulation. But for Piaget, human intelligence speaks of a power far greater than any innate mechanism could explain.

With his Kantian heritage, Piaget looks upon mind as the lawgiver of nature, a mind of schemes and operations that both transform the environment and are in turn transformed, by objects and events in the environment. The schemes and operations of mind frame transactions with the environment, leading to changes that alter the schemes and operations themselves.

With his Cartesian heritage, Chomsky looks upon the mind and its faculties as the only object by which we are certain, the distant and chaotic stimuli of the environment only become
manageable through the action of innate structures, structures that impose order through the power of reason. If Chomsky has any room for frames in his theory, they would have to be innately designed frames, structuring the external environment through coordinated systems of mental representations. Experience would be framed, then, from the inside out.

Summary of the controversies

This chapter highlights the controversies surrounding bilingual education. The current debate over bilingual education points to at least one principle of which we can be certain: perceptions of languages are tied closely to perceptions of those who speak those languages (Edwards, 1994). Debate over language status and bilingualism is essentially an issue of ethnicity.

To this debate looms a single research finding (Crawford, 1998; Hakuta, 1989): that bilingual students do better at school through literacy in the first language. In other words, when considering Cummin’s (1986) model, achievement in the lower left quadrant is tied to first language literacy. Instruction in ESL is not designed to assist students with the cognitively demanding, context reduced topics and printed materials of schooling. Opponents to bilingual education insist, though, that ESL instruction is the fastest route to acquiring the school language described by Cummins (1986).

Political forces and public opinion have imposed pressure on researchers, not necessarily to continue producing the kinds of large-scale evaluative studies that have been tried to test the efficacy of different programs and methodologies, but to look further into the condition of two languages in one mind. The need exists for what Edwards (1994) and Hakuta (1989) describe as an interdisciplinary effort; basic research demands a combined perspective on mind, language, and society.

What the current political and ethnic forces are suggesting is the need for an understanding of bilingualism grounded in principles advocated by Vygotsky, Skinner, and Wittgenstein. It is the bilingual mind as situated in activity, in mediated action with organized episodes united by functional relationships, that should be the focus of our attention if we are close the gap in basic research. Hymes’ (1974) ethnography of speaking offers the investigative tool for examining these principles.

Proposing an anthropological solution

Hymes’ (1974) ethnography of speaking is an anthropological solution to the theoretical controversies reported. Skinner’s episodic behavior, Vygotsky’s mediated action, and Wittgenstein’s socially embedded language acts come together within an ethnography of communication. Just as Hymes focuses on language as a means for social action (Gumperz, 1982), Vygotsky and Wittgenstein similarly propose the analogy of language as a social tool. Hymes (Gumperz, 1982) shares another point in common with these three writers: that socio-cultural knowledge is performed or enacted through functional speech acts (Gumperz, 1982). In short, speech events are contextual, episodic, functional, and reveal the minds of actors.
A contemporary of Hymes, Gumperz (1982), also looks to placing language within a wider context, but looks at the frame unit with caution. Frames tend to imply static samples of social interaction:

The term is used to emphasize that, although we are dealing with a structured ordering of message elements that represents the speaker’s expectations about what will happen next, yet it is not a static structure, but rather it reflects a dynamic process which develops and changes as the participants interact. (1982, p. 131)

Gumperz (1982) prefers the sociological term activity types, with the idea that activity types are developing patterns that evolve out of the situated action.

It may be helpful to look back at Agar’s (1994) frame unit as a dynamic means of helping conversation participants interpret each other’s actions. And with the methodology of ethnography, the elements of the interpretation may be described. The grammatical patterns of speech, the conceptual contents of background expectations necessary for interpretation, and the patterns of the contextual scene can be illuminated through the traditional tools of ethnography, with its observation and interviewing techniques.

Erickson and Mohatt (1982) identify the present work as a microethnography. They contrast microethnography with general ethnography:

While general ethnography attempts to describe the whole way of life of a naturally bounded social group, microethnography focuses on particular cultural scenes within key institutional settings. (p. 137)

The specific cultural scenes selected for this study were popular commercial games. For Erickson and Mohatt (1982), microethnography is a close up study of how cultural events get done: how participants interact with each other toward reaching culturally defined ends. Microethnography applies anthropology to single scenes or events, taking such events as the games played this study as microcosms of a wider cultural system.

A number of researchers have applied ethnographic investigation to discourse within and outside the classroom (Moll & Greenberg, 1990; Heath, 1983; Philips, 1983; Erickson & Mohatt, 1982; Mehan, 1979). Mehan (1994) reminds us that “the discourse of the classroom is connected to the organization of society” (p. 78). Mehan (1979) describes in an earlier work how thought and language are performed in scripted classroom interactions controlled by teachers, concluding that “learning lessons involves presenting correct academic information in interactionally appropriate ways” (p. 33).

Heath (1982) demonstrates that talk at home has a powerful influence over talk at school. Heath (1983) spent a decade of research examining how preschoolers in two communities learned to talk at home. In her work Heath (1982) described how smoothly white middle class children enter schooling, from a culture that emphasized accurate responses to information questions and identifying or naming objects through attention to their attributes. Heath (1982) contrasted these children with the children of Trackton, a black working class community that was—at the time the study started—being integrated with the white middle class schools. Heath (1982) described the rich talk of the preschool children of Trackton, who learned to emphasize
comparisons through analogy and metaphor, learning about the world around them through attention to likenesses and differences. Without the same interactional strategies as the white children of the school, observed Heath (1982), the black children often fell behind academically. Their enculturation differed from what the white teachers expected.

And a number of anthropological investigators have come to the same conclusion. Minority children from homes with different cultural and linguistic backgrounds are at a disadvantage in America’s schools. Cazden (1988) warns about the consequences of such a conflict: “… the result can be misunderstanding, conflict, and invalid inferences about a child’s ability to learn” (1990, p. 117). Erickson (1993) points out that the conflicting modes of talk and interaction lead to higher rates of failure among language minority students, which combined with the socioeconomic constraints facing many minority groups, foster academic failure and a lack of trust on the part of these students.

Around the time Heath (1983) conducted her comparison, Philips (1983) reported how white children had an unfair advantage over Native American children at the Warm Springs Reservation in Oregon. Philips (1983) described how the Native American children engaged in different modes of interactive-communicative behavior, leading to different strategies for eliciting and holding attention.

Ethnography in general, and ethnography of speaking in particular, work as a tool for describing the complexity of a bilingual child. As Heath (1982) demonstrates, it is a powerful tool for linking home to school. It helps us to understand how children are enculturated before school, and what kinds of communicative-interactive skills they take with them to school. Moll and Greenberg (1994) call what children learn at home as “funds of knowledge” (p. 320), meaning the kinds of information that is passed on to children through daily activity at home. So cooking, sewing, machine repairs, and tool use are all kinds of funds acquired at home. How minority children acquire these funds at home, though, is often not the same as how they are expected to perform at school.

Ethnography contributes to educational policy, too. Fetterman (1993) notes that ethnography captures the complexity of minority students’ lives and perspectives as they attend American schools. This improves the accuracy of our understanding language minority children, making ethnography a “… powerful force when combined with policy decision making” (p. 247). Ethnography, with its global approach to describing the lives of language minority students, can breathe life into the vast array of statistics and demographic figures that influence decisions made on bilingual education programs.

In conclusion, the ethnographic method offers a solution to the debate surrounding bilingual education. McLeod (1994) cautions that “it is naïve to expect English instruction to remove all the barriers to educational excellence” (1994, p. 15). McLeod reminds us that bilingual students often face any number of possible social problems, from neighborhood poverty to schools receiving insufficient funding. What McLeod asks educators to do is to reach out to bilingual children, to make meaningful contact with their home environments:

Schools can bridge the cultural gap between home and classroom by reaching out to parents in their native language, by using curricula that include peoples of various cultures, and by modifying instructional methods to accommodate the cultural backgrounds of students. (1994, p. 20)
Establishing a bridge between home culture and school culture can be done through an ethnography of speaking, by educators learning more about how school talk may differ from the modes of talk performed by their students.

Such a bridge is critical if educators are to rise above the political debate raging over bilingual education. After all, home talk in a child’s native language is more than just talk. And learning school talk entails much more than learning the English language. The languaculture of the home for bilingual children is often worlds away from the languaculture of American schools.

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i Limited-English-proficiency (LEP) students include English language learners whose level of English, spoken or reading or both, interferes with their school performance. These students are not necessarily the same as language-minority-students (LM), who come from homes where a language other than English is spoken. (Crawford, 1997) Sometimes LEP students are designated as English Language Learners (ELL), as they require language instruction. Not all LM students, however, require language instruction.

ii English as a second language (ESL) instruction covers a broad range of programs. Some include content-based ESL, in which academic content is included with the language study. Others include pull out ESL, in which students are removed from their mainstream classes and taught English language skills for a daily time period. The pull out ESL resembles other traditional kinds of ESL programs that focus on English language proficiency: grammar-based ESL, which teaches grammar and vocabulary and reading skills, and communicative ESL, which teaches conversation. (Crawford, 1997) Naturally, programs may also include a combination of these, with possibly other approaches such as whole language instruction or cooperative learning methods. ESL teachers are usually not expected to speak the native language of their students.