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Preamble

In this issue of New Focus, which examines the relationship of age to second language acquisition for school, two articles are presented. Virginia P. Collier reviews a number of studies, including her own recently completed one, that point to an advantage which children in middle childhood appear to have over younger children and adolescents in formally acquiring a second language. In the second article, Charles William Twyford analyzes a number of factors --cognitive, sociocultural, affective, and linguistic-- that may account for age differences in second language acquisition. Together the two articles provide an overview for practitioners that can form the basis for reasoned decisions in setting objectives, designing curricula, and selecting instructional strategies for limited-English-proficient students.

The Effect of Age on Acquisition of a Second Language for School

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Introduction

As the number of non-English- and limited-English-proficient students in our schools increases steadily, educators are looking for more efficient and cost-effective ways to improve these students' English skills so that they can participate fully in the curriculum of their schools. It is natural, then, for teachers, curriculum developers, administrators, and government officials to ask how long it should take for limited-English-proficient students to break through the language limitations that hinder their learning and advancement.

The only simple answer to that question is "It depends." It depends on the learner's cognitive style, socioeconomic background, formal schooling in first language, and many other factors. A substantial amount of research, testing the old axiom that young learners learn best, also tells us that successful language acquisition depends on the learner's age. This article, recognizing the interaction of many variables in second language acquisition, will examine what has been said about the effect of age on the amount of time students need to acquire a second language.

The conclusions presented here, when considered with other research findings and specific student information, can guide planners and practitioners toward the implementation of more effective programs for limited-English-proficient students.

Is There a Critical Period for Second Language Acquisition?

Some of the earliest studies of the effect of age on the acquisition of a second language focused on proving or disproving Lenneberg's (1967) critical period hypothesis. Lenneberg theorized that the acquisition of language is an innate process determined by biological factors which limit the critical period for acquisition of a language from roughly two years of age to puberty. Lenneberg believed that after lateralization (a process by which the two sides of the brain develop specialized functions), the brain loses plasticity. Lenneberg claimed that lateralization of the language function is normally completed at puberty, making post-adolescent language acquisition difficult.

Many studies have tested this hypothesis by comparing children to adults in the acquisition of pronunciation. Studies examining subjects' pronunciation after over five years of exposure to the second language consistently find that the large majority of adults retain their accent when the second language is acquired after puberty, whereas children initiating second language acquisition before puberty have little or no foreign accent (e.g., Asher and Garcia, 1969; Oyama, 1976; Seliger, Krashen and Ladefoged, 1975; Tahta, Wood and Loewenthal, 1981). Two studies assessing students' acquisition of pronunciation after three years of exposure to the second language found that younger students had retained more accent-free pronunciation when compared to adolescents just past puberty (Fathman, 1975; Williams, 1979).

Researchers have debated the age at which lateralization actually occurs. Kinsbourne (1975) proposes completion by birth; Krashen (1973) suggests it may be complete by age 5; Lenneberg (1967) proposes lateralization by puberty. Long (1988) suggests that the brain's loss of placticity is also due to other aspects of cerebral maturation unrelated to lateralization. Regardless of the exact timing of lateralization or other related factors, evidence is very strong that most people who acquire a second language after puberty retain an accent in the second language.

It may be that the effort to test the critical period hypothesis is called too much attention to one aspect of language proficiency - pronunciation - and to the child/adult dichotomy. Educators may be more concerned about differences in language acquisition of young children (4-7), older children (8-12), and adolescence (13-16), and they are interested in more aspects of language to be mastered than just pronunciation. The sections which follow examine the effect of age on school children's acquisition of progressively complex language domains: first, basic oral skills, then language skills for school including oral and written skills, and finally language skills in content area development.

Does Age Affect Basic Oral Second Language Development?

The critical period studies usually focused on child-adult differences and suggested that younger learners, still operating within the critical period, should be superior learners. However, studies of oral language skill acquisition by children of different ages has led to the conclusion that, initially, older children acquire faster than younger children.

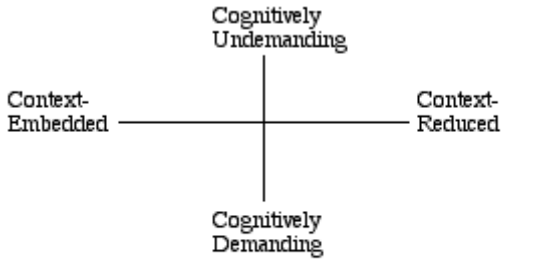
For example, Ervin-Tripp (1974) found that after nine months of instruction in French, 7- to-9-year-olds performed better than 4- to 6-year-olds did in comprehension, imitation, and conversation. Similarly, Fathman (1975) found that in the first year of study, 11- to 15-year-olds were significantly better at acquiring English as a second language than 6- to 10-year-olds in pronunciation, morphology, and syntax.

In Fathman's study, however, by year three the younger students outperformed the older ones on the same types of measures. This flip-flop pattern continues in study after study on short-term versus long-term exposure to the language; i.e., an early advantage is seen in the acquisition of oral skills for older acquirers (even those after puberty), but younger acquirers eventually catch up and outperform the older ones after several years' time (Grinder, Otomo and Toyota, 1962; Hamayan, Saegert and Larudee, 1977; Krashen, Scarcella and Long, 1982; Oyama, 1978; Patkowski, 1980; Ramirez and Politzer, 1978; Snow and Hoefnagel-Hohle, 1978; Stern, 1967; and Winitz, 1981).

It is important to note that these studies report a pattern of age differences as seen in studies of basic oral skills in a second language, not the more complex skills required for formal schooling. The next section examines the effect of age on acquiring those skills.

Does Age Affect the Development of Language Proficiency for School??

If English is being acquired for academic purposes, the level of proficiency expected is much more complex than English for day-to-day survival. Cummins (1979; 1980; 1981a; 1981b) has proposed a model for second language acquisition that distinguishes between these two types of language proficiency: language for general social interaction and language for school. Cummins' distinction between face-to-face conversational proficiency and proficiency which requires the speaker to rely solely on the language itself can help clarify the effect that age has on the language acquisition of limited-English-proficient students.



(Cummins, 1984 p. 139)

Figure 1. Dimensions of Language Proficiency

Cummins uses the term 'context-embedded' to describe face-to-face communication where meaning can be negotiated. This type of communication is enhanced by a wide range of paralinguistic (e.g., gesture, facial expression) and situational cues. On the other hand, context-reduced language relies primarily on linguistic or language-based cues to meaning and is more difficult to produce and comprehend. Cummins' model (see Figure 1) consists of two intersecting continuums: the first from context-embedded language to context-reduced language, and the second from cognitively undemanding language (which requires little conscious attention to language forms or choices) to cognitively demanding language (which requires the active cognitive efforts of the speaker/writer to produce).

Language proficiency required for school tasks can incorporate the whole range of skills in all four quadrants, but it is especially for school that students need to develop context-reduced and cognitively demanding aspects of language in order to function successfully in the classroom. Swain (1981) describes some of these aspects of language for school:

> Language which is used to explain, to classify, to generalize, to abstract, to manipulate ideas, to gain knowledge, and to apply that knowledge (doing so eventually with only language providing the contextualizing cues) constitutes essential aspects of the cognitive demands made on students as they progress in school. One of the goals of the educational system is that students be able to make use of decontextualized language, that is, to be able to use language alone as a tool for learning in reading and listening; and to use language alone as a tool for conceptualizing, drawing abstract generalizations, expressing complex relationships in speaking and writing (p.5).

For academic purposes, students need to acquire as complete a range of skills in the second language as possible. Language in school becomes increasingly abstract as students move from one grade level to the next. Language becomes the focus of every content area task, with all meaning and all demonstration of knowledge expressed through oral and written forms of language. It would be good to know, then, at what

ages and after what length of time students do best in acquiring a second language for school.

Several researchers have conducted studies comparing the performance of students of different ages on language tasks associated with school skills, including reading and writing. The short-term studies once again show an initial advantage for the older students, but in contrast to the previous studies cited on basic oral second language development, the long-term studies show a continuing advantage for the older students (ages 8 to 12). When examining age on arrival, most studies of both short-term and long-term acquisition find that students arriving between the ages of 8 and 12 are faster in early acquisition of second language skills, and over several years' time they maintain this advantage over younger arrivals of 4 to 7 years. Table 1, on the next page, summarizes the findings of several studies that support this conclusion.

Based on this review, we can assert that older students (ages 8 to 12) are faster, more efficient acquirers of school language than younger students (ages 4 to 7). In many of the studies reviewed, young children beginning the study of a second language between the ages of 4 and 7 take much longer to master skills needed for academic purposes than older children do. Why is this so? Several explanations have been proposed, though none yet has conclusive research support. First, we know that children who enter school at age 5 or 6 have not completed acquisition of their first language, which continues through at least age 12. From ages 6 to 12, children still are in the process of developing in first language the complex skills of reading and writing, in addition to continuing acquisition of more complex rules of morphology and syntax, elaboration of speech acts, expansion of vocabulary, semantic development, and even some subtleties in phonological development (McLaughlin, 1984, pp. 41-43).

It may be, then, that when young children are asked to learn a second language for use at school before their first language has sufficiently matured to serve as a source of transferable skills, the learning task is very burdensome and requires more time than older children need--children whose first language skills are available for transfer. (The older children in the studies cited had received schooling in their first language.)

It has also been argued (Ausubel, 1964; Burtsall, et al., 1974; Cummins, 1981a; Taylor, 1974) that older learners have an advantage in cognitive maturity, which gives them more strategies for acquiring a new language. For example, Scarcella and Higa (1982) showed in an experimental study that older learners take a more active role than younger ones in negotiating understanding and sustaining conversations. As a result, they succeed in obtaining input that is better suited to their learning needs.

TABLE 1

STUDIES OF SECOND LANGUAGE ACQUISTION FOR SCHOOL

RESEARCHER	STUDENTS	SKILLS/TASKS	RESULTS
Grinder, Otomo, and Toyota (1962)	Second- and fourth-graders after one year of study	Vocabulary, listening comprehension	Fourth-Graders superior to second-graders
Ervin-Tripp (1974)	English speakers acquiring French in Switzerland, tested in first 9 months	Listening, imitation, taped natural conversation, diary writing, translation	7- to 9-year-olds superior to 4- to 6-year-olds in syntax, morphology and pronunciation
Burstall (1975)	16-year-old English speakers introduced	Listening, speaking, reading, writing	Students who started French at age 8 only slightly

	to French at age 8 or 11		superior to those starting at age 11
Ekstrand (1976)	Immigrants to Sweden LOR*2; AOA**6-14	Listening, pronunciation, free oral production, reading comprehension, free writing	Older students better than younger ones on all measures
Snow and Hoefnagel-Hohle (1978)	English speakers acquiring Dutch in Holland. Age groups: 3-5, 6-7, 8-10, 12-25, and adults. Tested at LOR 6 months, 10 months and 14-15 months.	Pronunciation, auditory discrimination, morphology, sentence repetition, sentence translation, sentence judgement, story comprehension, Peabody Picture Vocabulary Test	At LOR 6 months, adults and 12- to 15-year-olds superior on all measures. By LOR 15-15 months, adult progress slower; 8- to 10-year-olds and 12- to 15-year-olds surpassed all others. 3- to 5-year-olds consistently worst performers on all measures
Skutnabb-Kangas (1979a)	Finnish immigrants to Sweden	Listening, speaking, reading, writing	Students AOA 9-11 significantly better than students AOA 6-8
Lapkin, Swain, Kamin, and Kanna (1980)	Tenth-grade students who began French immersion program at age 5 or age 12	Listening, speaking, reading, writing	Tenth-graders starting at age 12 (1400 hours of instruction) roughly equivalent to group starting at age 5 (4000 hours of instruction)
Ferris and Politzer (1981)	Eighth-grade Mexican immigrants to the U.S.	Writing	Students schooled in Spanish in Mexico for grades K-3 equal to those schooled completely in English in the U.S. for 9 years. Students of AOA 9 years, LOR 5 years had more positive attitudes toward school and higher grade point averages than those of LOR 9 years, AOA 5 years
Cummins, Swain, Nakajima, Hanscombe, Green and Fran (1984)	Japanese students in Canada, Grades 2-3 and 5-6; Vietnamese ages 9-17	English vocabulary, reading, preposition usage, sentence repetition, oral interviews	On second language school skills, older students significantly better; on context-embedded measures (basic skills), younger students better. First language school skills

accounted for significant proportion of variance in second language skill

* LOR = Length of residence
** AOA = Age on arrival

Finally, Snow and Hoefnagel-Hohle (1978) concluded after a study of second language acquirers in Holland that their finding of superior initial performance by older learners was perhaps due to the greater academic demands placed on these learners by the schools, creating higher levels of motivation in them than in younger learners to learn the language necessary for success in school.

Whatever the reasons might be, practitioners should be alert to the differences between younger and older school children in the amount of time required for them to develop second language skills adequate for schooling. Older learners (ages 8 to 12) have an advantage, at least initially.

Does Age Affect Content-Area Achievement When Schooling is in a Second Language?

Collier (1987) analyzed the length of time required for 1,548 immigrants to the U.S. to become proficient in second language skills for all content areas when schooled only in English. Students who had been mainstreamed after instruction in English as a second language were tested in the fourth, sixth, eighth, and eleventh grades on reading, language arts, social studies, science, and mathematics using standardized tests produced by Science Research Associates (SRA). The study included a range of students beginning with those who began exposure to English, their second language, at age 5 and continuing through those beginning at age 15. Length of residence ranged from two to five years. Over 75 first languages were represented in the sample. Only students who were at grade level when they entered the U.S. and who had no previous exposure to English were included in the study. Social class background of the sample was middle to upper class in the home country with relatively lower income in the U.S. but with strong middle-class aspirations.

Collier found that students who were 8 to 12 years old on arrival were the first to reach norms for native speakers (50th percentile or normal curve equivalent [NCE]) on all content-area tests, doing so within four to five years. Students who were 5 to 7 years old on arrival fell significantly behind the older children in academic achievement, requiring five to eight years to reach the 50th NCE, assuming a continued rate of gain similar to the one at the time of the study. Arrivals at ages 12 to 15 experienced the greatest difficulty reaching age and grade norms, requiring 6 to 8 years at their same rate of gain.

That finding appears at first glance to contradict the generalization that older students whose first language proficiency is better developed acquire a second language for school more rapidly than younger students. However, it may actually be pointing to the increasing complexity of language development at each succeeding grade level and the results of taking time away from content-area instruction while acquiring a second language. Students who are 12 years old on arrival, for example, and who enter seventh grade and begin their schooling completely in English with no previous exposure to English, must take time to acquire beginning levels of basic oral English. As they master sufficient basic English and develop a wide enough range of vocabulary in English to move into deeper development of English for school, they may, in the meantime, lose two to three years of learning in mathematics, science, and social studies at their age and grade level. Secondary students can ill afford a loss of two to three years of complex content-area development if they are to achieve at the performance level of native speakers after a given period of time.

After puberty, then, despite advantageous learning rates, there are two problems with beginning acquisition of a second language: (1) students are more likely to retain an accent, and (2) if academic work is not continued

while students are acquiring a second language, there is not enough time left in high school to make up the lost years of academic instruction.

Conclusions

It is clear that age (or age-related factors) is a major variable in the acquisition of a second language for school. In the early stages of acquisition, older students are faster and more efficient than younger students. Older students have the advantage of cognitive development in their first language to assist them with acquiring school skills in the second language. This early advantage diminishes after the first year for adults, but remains for older children and adolescents for continuing development of their second language skills. Adolescents past puberty are likely to retain an accent in the second language. Otherwise, they are capable of developing complete second language proficiency.

When schooled only in the second language, students in the 8-12 age range on arrival may be the most advantaged acquirers of school skills in the second language, since they have some first language skills to transfer and they still have time to make up the years of academic instruction lost while acquiring basic second language skills and beginning to acquire school skills in the second language. Even though adolescents can acquire second language school skills at a fast pace, they have less time to make up lost years of academic instruction easily.

It is important to note that the effect of age diminishes over time as the acquirer becomes more proficient in the second language. Differences are generally found through the first five years after arrival. It takes language minority students in any type of program a minimum of four years to reach native speakers' level of school language proficiency and may take as many as eight or more years, depending on age on arrival and type of school program, as well as sociocultural factors and the individual characteristics of each second language acquirer.

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Preamble

In this issue of New Focus, which examines the relationship of age to second language acquisition for school, two articles are presented. Virginia P. Collier reviews a number of studies, including her own recently completed one, that point to an advantage which children in middle childhood appear to have over younger children and adolescents in formally acquiring a second language. In the second article, Charles William Twyford analyzes a number of factors --cognitive, sociocultural, affective, and linguistic-- that may account for age differences in second language acquisition. Together the two articles provide an overview for practitioners that can form the basis for reasoned decisions in setting objectives, designing curricula, and selecting instructional strategies for limited-English-proficient students.

Age-Related Factors in Second Language Acquisition

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Introduction

Substantial interest surrounds the question of how age affects second language acquisition. This is a particularly intriguing question for educators who must develop appropriate curricula and instructional strategies for refugee and immigrant children of different ages who are entering our schools. Unfortunately, too little is known about language acquisition in general to allow us to say definitively that X or Y makes acquisition easy at one age or difficult at another. However, the convergence of several lines of psycholinguistic and sociolinguistic theory and research suggest possible explanations for age-related influences on language acquisition that language educators should take into account. The purpose of this discussion is to focus on several variables that have been shown to be age-sensitive in the process of second language acquisition.

A word of caution is necessary at the outset: generalizations about the relationship of age and language acquisition are treacherous for two obvious reasons. First, people of the same age do not share all the same characteristics. We can speak of a typical six-year-old or an average fifteen-year-old, but we have to keep in mind that a norm or an ideal may be as much fiction as fact in the real world. Among people of the same age, differences in attitudes, aptitudes, knowledge, and skills make sweeping generalizations about learners elusive. Second, there is no uniform pattern of development that everyone follows. Even if we could say that everyone eventually achieves certain characteristics, it is clear that there is no common route to be followed. Knowledge and skill are acquired by each of us according to a highly individual map.

Cognitive Development

Piaget has shown how human cognitive development is achieved through maturational stages, with our thought processes and patterns changing systematically as we age. He has also influenced the way we understand the stages of language development as part of more complex cognitive development. For example, Piaget (1926) distinguished between "egocentric" and "socialized" speech in children. When he watched five-and six-year-olds working and playing together, he noticed that their communication often resembled monologues. The children talked, but without much notice of who was listening. They would answer their own questions without waiting for someone else to answer, and often several children would talk simultaneously in what Piaget called "collective monologues."

Children seem unable to engage in sustained socialized speech until they move out of what Piaget calls the preoperational stage of cognitive development and into the concrete operational stage. This shift, which normally occurs around age six or seven, finds children outgrowing their inability to focus on more than a single aspect of a situation, or a single point of view, and beginning to consider relationships. At that point they begin to consider the need to communicate differently with different audiences--to take the listener's point of view into account.

Given this pattern in child language development, it should not be surprising that educators have greater success redirecting the language behavior of 8- to 12-year-olds than 4 to 7-year-olds (Collier, 1987). Although this younger group has no trouble learning a second language in natural settings, they do seem to be slower to respond to formal language instruction in school than older learners. It can be expected that as they move into the stage of cognitive development that permits socialized speech, their openness to educational intervention will increase.

Around this same age, middle childhood, children develop a conscious awareness of language that allows them to think about it, judge it, and manipulate it much as adults do. This new awareness of language corresponds to a general cognitive "decentering" (Flavell, 1977) that children experience as they begin to step back and reflect on situations rather than just on themselves. Conscious awareness of language makes it possible for children to think about the appropriateness of what they and others say and to segment language into units -- a necessary step for learning to read. The onset of this awareness, coinciding with other advances in cognitive development, appears to be at, least partly responsible for the boundary that researchers have found between early childhood and middle childhood for purposes of school language acquisition. Instructional strategies which are popular in formal classroom settings are more likely to fit the cognitive abilities of older children, creating an advantage in rate of acquisition for older children over younger ones.

A similar developmental boundary occurs around the time of adolescence, when the "formal operations" stage of cognitive development begins, allowing a kind of abstract thinking not tied to experience with concrete objects. At this stage, new concepts normally derive from verbal rather than concrete experience (Ausubel and Ausubel, 1971, p. 66). The ability to manipulate abstract linguistic categories and to formalize rules and concepts is an additional aid for language acquisition. This advantage, related to conscious language learning and not natural language acquisition (Krashen, 1977), helps explain the initial advantage for older learners that many researchers have found. Because of their conscious awareness of language and ability to formalize linguistic rules, older learners can outperform younger learners in the early stages of language acquisition, especially in production tasks (speaking and writing). This advantage for older learners often flip-flops as the natural acquisition strategies of younger learners become more powerful. Only when conscious knowledge is called for, as in monitoring tasks that require grammatical analyses (Krashen, 1977, 1977a, 1978), do older learners keep a long-term advantage over younger learners.

The relationship of language acquisition to cognitive development may be one source, then, of the "age differences" researchers have found among language learners. By being alert to the cognitive variables active in the children who enter any classroom, educators can base instruction on what the individual learners are

ready to accomplish.

Sociocultural Context

The previous discussion of cognitive factors focuses on the natural, innately-determined blossoming of cognitive and linguistic capabilities that all normal children experience. Looking at the sociocultural context of language acquisition, however, one can find evidence that a child's environment nurtures and shapes his or her ability to use language. Specifically, the experiences a child has with language at home and in the community may have a lot to do with later success in school and may be age-related. In this section, some aspects of this sociocultural influence will be analyzed in an attempt to further clarify sources of age-related variance in language acquisition.

Shirley Brice Heath, an ethnographer at Stanford University, makes the following observation about schooling and language development:

> Strangely enough, though the common expectation is that the school prepares the young for life in the "real world" gradually and with compassion, school personnel rarely recognize that some fundamental notions that lie behind the language arts curriculum represent harsh demands for language minority children. Not only is there the general expectation that all children will learn to speak English, but also the assumption that they have internalized before they start to school the norms of language used in academic life (Heath, 1986, p.148).

Heath summarizes six uses of language that schools normally expect children to have mastered before schooling begins:

1. Use of language to label and describe the objects, events, and information that non-intimates present them ("Can anyone tell me today's date?");
2. Use of language to recount or recast past events or information shared with or given by non-intimates in a predictable order and format ("Where have we heard this term before?");
3. Following directions from oral and written sources without needing sustained personal reinforcement from adults or peers ("Let's get ready for lunch.");
4. Use of language to sustain and maintain the social interactions of the group ("If you want to use the scissors, Jenny, ask Tammy politely.");
5. Use of language to obtain information from non-intimates ("Why didn't you ask?");
6. Use of language on appropriate occasions to account for one's unique experiences, to link these to generally known ideas or events, and to create new information or to integrate ideas in innovative ways ("My uncle has geese on his farm; I could bring some feathers" - said in a science discussion of the effects of goose down.) (Heath, 1986, p.148).

The ability to use language in these ways is arguably a prerequisite to success in school, but it is not explicitly taught in school. Some children develop this ability at home and bring it to school; others--but not all others --intuit it in school from models presented by teachers, textbooks, and peers. This is an important point because it can easily be assumed that the difference between a five-year-old who cannot do the things with language that Heath has listed and an eight-year-old who can do these things is simply schooling: exposure to and practice with decontextualized language, not linked to the here-and-now.

Some theorists (for example, Cummins, 1981) argue that schooling an immigrant child in his or her native language for a few years will allow the child to develop language-for-school skills that can be transferred to a second language. Unfortunately, this view can be misinterpreted to mean that being in school at the right age is by itself productive for developing language skills for school. If this were the case, the success of compensatory education would be easier to achieve than it is.

British sociolinguist Basil Bernstein (1972) is less optimistic than Cummins about the "automatic" benefits of schooling for language development. He points to the mismatch between teachers' expectations and students' backgrounds as a cause of many students' failure in schools, especially big city schools. The teachers, as well as the school systems they function in, devalue the patterns of language use which are common in many language minority homes and in American working class families, but these patterns are not always successfully replaced.

For more than 25 years, Bernstein has been developing a theory of language use based on the dichotomy of "restricted" and "elaborated" codes. (The dichotomy is roughly equivalent to Cummins' [1984] distinction between "context-embedded" and "context-reduced" language.) Speakers of an elaborated code will choose from a wider range of syntactic possibilities to convey a message than will speakers of a restricted code (Bernstein, 1972). They will also make more lexical distinctions and put more of their intent into words. A restricted code relies on "gestures, intonations, and verbal metaphor" to express many meanings that could be verbalized, particularly attitudes toward the addressee such as respect and familiarity (Bernstein, 1972, p. 467). Restricted-code discourse is not fully intelligible to audiences who do not share the speaker's cultural background (home, ethnic identity, intellectual interests). This is not the case with elaborated-code messages, where verbal means are more fully employed to make the message explicit and clear to any audience. A major function of schools is to give students familiarity and practice with the use of an elaborated code for both learning and self- expression.

Bernstein traces code preference to cultural and subcultural patterns:

> "A restricted code will arise where the form of the social relation is based upon closely shared identifications, upon an extensive range of shared expectations, upon a range of common assumptions. Thus a restricted code emerges where the culture or subculture raises the 'we' above 'I'.... An elaborated code will arise wherever the culture or subculture emphasizes the "I" over the 'we'" (Bernstein, 1982, p. 476).

How might code preference be age-related and affect the course of language acquisition? Collier (1987) found that among her subjects, who were 5-to 15-year-old immigrants, 8- to 11-year- olds outperformed 5- to 7-year-olds and 12- to 15- year-olds in acquiring English. If her subjects represented the Asian and Hispanic groups that most immigrant children are part of, it is likely that their families and peers usually used a restricted code, rather than an elaborated one. If this is so, it follows that 4- to 7-year-old immigrant children, just venturing into a new culture, just beginning school, and just starting to learn English, would be unlikely to produce elaborated-code utterances in a relatively unfamiliar language. Similarly, Collier's 12- to 15-year-olds were in that sensitive adolescent period in which even language majority children retreat into restricted code usage whenever possible, even to the exclusion of their parents. Comparatively poor performance by these children in an elaborated English code should be no surprise.

In summary, it cannot be assumed that older learners who perform better than younger learners in school are doing so because they have been in school longer. Unless schools can break through code-preference barriers with immigrants more successfully than they have with other language minority students, including working-class whites, other sources will continue to be needed to support the schools' efforts to facilitate language acquisition and academic achievement. However, when teachers can guide language minority students toward more elaborated code usage, these students will reap the same benefit as language majority students do who shift from restricted to elaborated code: they will succeed in school. Effective schools have curricula and teachers who are sensitive to this need.

Affective Factors

The two previous sections have analyzed two possible sources of age-related variance in language acquisition:

cognitive development and sociocultural context. Both sources are linked to age, but no one can assume that certain things are automatically happening in a learner's cognitive or sociocultural development just because a certain age has been reached.

The same is true for two additional variables often linked to age: affective factors and language input. Affective factors include motivation, anxiety, self-confidence and other characteristics that might affect a person's attitude toward learning. These factors have been hypothesized to be partially responsible for the differences between children and adults in language acquisition (see Schumann, 1978). Their relationship to age as a predictor of overall language learning success is not clear, but some relationship is evident. Older learners, for example, are more likely to feel the need to learn a language for economic survival (adults) or for academic success (adolescents) and thus work harder in school. Such motivation would be absent from young children, and this absence might account for their slower language acquisition in school. On the other hand, even though young learners may lack such extrinsic motivation, they might succeed as they do in natural acquisition settings because of their intrinsic motivation to participate fully with their peers (Gardner and Lambert, 1972).

Ease in acquiring a second language has also been linked to a low level of anxiety (See Dulay, Burt, and Krashen, 1982, pp. 52-53). The anxiety barrier might explain why older learners, including adolescents like those in Collier's (1987) study, are less successful at school language acquisition than middle-childhood learners. Self-conscious teenagers' fear of failing or looking and sounding foolish may create an affective filter that blocks performance of which they would be capable in a relaxed state.

Self-confidence may also work as a filter or barrier. Older learners from many language minority backgrounds stand to perform with more self-confidence than younger learners in a language class because of the extent to which age influences their assertiveness in the face of authority. In spite of their lower anxiety, younger learners from restricted-code backgrounds may be less likely to project their own identity and try a more elaborated code than older learners are who have had to learn to do so for banking, shopping, and other community involvements. This hesitancy on the part of young restricted-code users to assert "I" over "we," as Bernstein points out, does not improve one's chance for success in an American school.

Language Input

A final source of variance in language acquisition to be discussed here as age-related is the nature of the language samples themselves which are presented to the learner as input for the acquisition process. Harley (1986) reviews a number of input studies in her analysis of age in second language acquisition and cites Krashen's assertion that "natural comprehensible input has become 'the fundamental principle' in second language acquisition" (Krashen,1981, p.8). Krashen believes that the ability to obtain comprehensible input may increase with age, giving older learners an advantage over younger ones. People who talk with very young children automatically simplify input and use concrete language, common to restricted codes. Older learners may receive less help and may have to intervene on their own behalf to clarify the input. Scarcella and Higa (1982) report an experimental study which compared child and adolescent second language learners who interacted with a native speaker on a block building task. Although the native speaker simplified language spoken to the younger learners, the older learners were more adept at managing the conversation to obtain more comprehensible input: they signaled their understanding better; they were more successful in keeping the conversation going; and they changed the conversation topic more proficiently.

Older learners from restricted-code backgrounds clearly have an advantage over younger learners in input management because their cultural background permits them to be more assertive and interactive. Most language minority children will not feel comfortable asking for the kinds of clarifications necessary to get comprehensible input. This puts these children at a clear disadvantage when compared to older learners and learners from elaborated-code backgrounds where explicitness and the search for it are valued.

Conclusion

A number of factors have been discussed here that may help us understand why language learners seem to have varying degrees of success at different age levels. Cognitive, sociocultural, affective, and input factors all may be a part of the explanation. Research is being actively conducted in these areas, and language educators who keep abreast of this research are more likely to devise effective systems for language teaching that are sensitive to the needs and potential of individual learners.

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