DOCUMENT RESUME

ED 255 046 FL 014 930

AUTHOR Kessler, Carolyn
TITLE Language Acquisition Processes in Bilingual Children. Bilingual Education Paper Series, Vol. 7, No. 6.
INSTITUTION California State Univ., Los Angeles. Evaluation, Dissemination and Assessment Center.
SPONS AGENCY Office of Bilingual Education and Minority Languages Affairs (ED), Washington, D.C.
PUB DATE Jan 84
NOTE 47p.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Bilingualism; Communicative Competence (Languages); Developmental Stages; Educational Environment; Elementary Education; Infants; *Language Acquisition; Language Attitudes; Language Research; *Learning Processes; Literature Reviews; Preschool Children; *Second Language Learning; *Young Children

ABSTRACT

A literature review and discussion of the language acquisition processes of young children looks at three types of child bilingualism: (1) simultaneous bilingualism in very young children, (2) sequential bilingualism in preschool children, and (3) sequential bilingualism in school-age children below the age of puberty. First, a theoretical framework for bilingual language acquisition is outlined, looking at the nature of communication, aspects of communicative competence (grammatical, sociolinguistic, discourse, and strategic) in the context of bilingualism, and language environment. Relationships between first and second language acquisition processes are then examined. A section focusing on simultaneous bilingualism in very young children looks at research on input characteristics and effects, language attitudes, two stages of language system development (single and differentiated), aspects of communicative competence, and the awareness of two languages. A section on sequential bilingualism in preschool children outlines research on developmental stages and aspects of communicative competence. A section on sequential bilingualism in school-age children reviews research on language environment and second language proficiency in school contexts. A bibliography is included. (MSE)

ISSN 0161-3707

Vol. 7 No. 6
January 1984

Bilingual Education PAPER SERIES

LANGUAGE ACQUISITION PROCESSES IN BILINGUAL CHILDREN

Carolyn Kessler
University of Texas
at San Antonio

Evaluation, Dissemination and Assessment Center
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA. 90032

The subject of this publication was supported in whole or in part by the United States Education Department. The opinions expressed herein do not necessarily reflect the position or policy of the United States Education Department; no official endorsement by the United States Education Department should be inferred.

This publication was printed with funds provided by the Bilingual Education Act, Title VII of the Elementary and Secondary Education Act of 1965, as amended by Public Law 93.380.

LANGUAGE ACQUISITION PROCESSES IN BILINGUAL CHILDREN

Carolyn Kessler

Becoming bilingual, either in infancy or in later childhood, is a formidable task for children. Like monolingual first-language development, the acquisition of two languages essentially evolves in the attempt to converse with an adult caretaker or another child. These efforts at social interaction are at the heart of language development. Developing the communicative competence to successfully convey and understand meaning is a time-consuming, highly complex process that reaches far beyond surface assessments of sounds, words, and sentences. The process of becoming bilingual is a dynamic one, engaging and challenging children's ability to use two language systems for communication with speakers of different languages and cultures.

The process of acquiring two languages is further compounded for children by the time at which the process begins. For some children it begins at, or nearly at, the onset of language--in infancy, as an effect of dual-language input from parents or other caretakers. The result is first-language bilingualism (Swain, 1972), a process of simultaneously acquiring two languages. This type of developmental bilingualism is described for the acquisition of two languages before age 3, the point at which children normally have much of the first-language (L_1) system. When the acquisition of another language begins after this point, sequential or successive bilingualism (in which one language follows or is second to the first in the acquisition order) occurs.

---

*This is an edited version of a paper published in Miller, N. (Ed.), Bilingualism and Language Disability: Assessment and Remediation. London: Croom-Helm Ltd./San Diego: College-Hill Press, 1984.

This defines second-language acquisition for both children and adults. In addressing the issue of second-language (L_2) acquisition for children, however, it is helpful to distinguish L_2 acquisition in the preschool years from that in the school years when the child is at higher maturational levels and when literacy, reading, and writing tasks also become part of the total process of becoming bilingual. In discussing language development processes in bilingual children, these three types of child bilingualism will be considered: (1) simultaneous bilingualism in very young children, (2) sequential bilingualism in preschool children, and (3) sequential bilingualism in school-age children below the age of puberty.

THEORETICAL FRAMEWORK FOR BILINGUAL LANGUAGE ACQUISITION

The development of bilingualism is a social process that is, unlike monolingualism, a nonuniversal achievement. As such, it may develop along a continuum ranging from full proficiency in two languages to a minimal degree of competency in one of them. In any case, bilingualism results from efforts to communicate, to participate in that interpersonal, interactive process defined by the social situations in which it occurs. Communication, more precisely, may be viewed as the exchange and negotiation of information between at least two persons through verbal and nonverbal symbols, oral and written or visual modalities, as well as production and comprehension processes (Canale, 1983). Information is taken here in its broad sense of consisting of conceptual, sociocultural, affective, and other content. Communication as a form of social interaction, following Morrow (1977), necessarily involves a high degree of unpredictability and creativity in both the form and content of the message. It occurs in sociocultural contexts through various types of discourse that place constraints on appropriate language use. Additionally,

it occurs under limiting conditions, such as those imposed by normal maturational processes in children as well as other psychological or environmental constraints, such as fatigue, anxiety, background noise, or memory. Communication always has a purpose or function: informing, expressing oneself, persuading, entertaining, or establishing social relations. It uses authentic, not contrived, language and is judged successful on the basis of its outcomes.

Communicative Competence

Against this outline of the nature of communication we can consider the notion of communicative competence and put in perspective the various dimensions of bilingual language acquisition. Canale and Swain (1980) and Canale (1983) stress that communicative competence is essential to actual communication. It refers to knowledge--what one knows consciously or unconsciously about the language and other aspects of communicative language use--as well as to how well one can use this knowledge in actual communication. This competence includes, then, both the knowledge and the skill which underlie actual communication.

This theoretical framework for communicative competence identifies four areas of knowledge and skill. The four components include grammatical or linguistic competence, sociolinguistic competence, discourse competence, and strategic competence. To fully appreciate the task of becoming bilingual--for a child or an adult--it is necessary to examine the nature of each of these components, which, taken together, give a reasonably comprehensive view of what is involved in the process of language acquisition.

Grammatical (or linguistic) competence. This component of communicative competence refers to the mastery of formal language features, the language code. It includes the ability to recognize at a subconscious level the

phonological, syntactic, and lexical features of a language and the skill to combine these features in pronunciation and word and sentence formation. An understanding of the developmental stages for grammatical competence gives important insights into the nature of child bilingualism.

Sociolinguistic competence. This component addresses the sociocultural rules of language use which define the appropriate use of language. Appropriateness depends on the social context in which language is used. This requires taking into account the status and roles of the participants in the setting, the purposes of the interaction, and the norms or conventions of interaction. It involves knowing what to say in a situation and how to say it, or even when to remain silent. Sociolinguistic competence includes appropriateness of both meaning and form. As Canale (1983) explains, the former refers to the degree to which the expression of particular language functions, attitudes, and ideas is judged acceptable for a specific situation. For example, while it is often appropriate for a parent or teacher to say to a young child, "Be quiet" or "Stop that," it is normally inappropriate for the child to address such utterances to an adult. Appropriateness of form concerns both verbal and nonverbal forms, the use of appropriate register or style together with appropriate gestures, facial expressions, tone of voice, spatial relations, and the various other dimensions of rules of kinesics and proxemics (Richards, 1981).

Sociolinguistic competence is crucial in interpreting utterances for their social meaning. We have no written description of the rules of sociolinguistic competence governing a language, but adult native speakers know these rules and use them to communicate successfully in different situations. For children, this is an intricate developmental process that, like grammatical competence, takes place over time and reflects aspects of normal matura-

tional processes. Although studies of the development of pragmatics (rules for using language appropriately) comprise a growing body of literature (Bates, 1976), little is yet known about the normal developmental paths for this interface between linguistic, cognitive, and cultural competence for normal L_1 development. Even less is known about that for child bilinguals. Nevertheless, sociolinguistic competence is no less important than grammatical competence.

Discourse competence. Discourse competence is concerned with the connection of a series of utterances to form a meaningful entity. While discourse competence also applies to written language, for the purpose of addressing this component in children we may think of it in reference to the spoken language. Because of the critical role it plays in language development, an understanding of the nature of conversation--in contrast to other speech events such as lectures, interviews, and debates--gives insights into the development of discourse competence.

Richards and Schmidt (1983) point out that conversation is not only the exchange of information but also a form of interaction to which participants bring shared assumptions and expectations about what conversation is, how it develops, and the types of contributions each participant is expected to make. Conversation is constructed from rules governing the introduction of topics, openings and closings, the pairing of utterances, and turn-taking conventions. Discourse competence uses grammatical competence (the knowledge and use of language structures) sociolinguistic competence (the constraints imposed by particular sociocultural contexts) and, additionally, those rules that provide for an ongoing, developing, related succession of utterances. The connections between a series of utterances that join to make a meaningful whole are achieved through cohesion in form and coherence in meaning.

Cohesion deals with overt markers linking utterances--structures which include conjunctions, such as **and then** or **meanwhile**; or pronouns referring to previously identified persons, objects, or events, such as **he, it,** or **that (made me happy)**. Coherence, in contrast to cohesion, is often achieved without an overt connection. It is based on general knowledge of the real world and familiarity with specific contexts (Savignon, 1983). An example of violation of discourse is shown by Widdowson (1978, p. 25):

Speaker A: What did the rain do?

Speaker B: The crops were destroyed by the rain.

Although B's reply conforms to rules of both grammatical and sociolinguistic competence, it does not connect well with A's question, thus violating a discourse rule governing cohesion.

Like other aspects of communicative competence, the development of discourse competence is a long process for children, taking place over many years.

Strategic competence. This is characterized by the strategies drawn on to compensate for breakdowns in communication resulting from imperfect knowledge of the rules in one or more aspects of communicative competence. Native speakers turn to their strategic competence under conditions of fatigue, memory lapse, distraction, anxiety, or some other factor affecting language performance. Strategic competence is also used to achieve certain rhetorical effects such as a change in volume to get attention or make a point. For second-language learners, Corder (1981) distinguishes two types of strategies: communication and learning strategies. The former are devices used to communicate effectively. Learning strategies are mental processes used to construct the rules of a language. Communicative competence includes the ability to adapt one's strategies to a variety of charging conditions.

Paraphrase, repetition, circumlocution, message modification, hesitation, and avoidance are all strategies used to meet the demands of ongoing communicative interaction. The coping or survival strategies needed to keep channels of communication open are available to all language users. As Corder (1981) hypothesizes, at least some of the strategies used in second-language acquisition are substantially the same as those used in acquiring L_1. Furthermore, in early stages of L_2 development, children may need specific strategies, a need that may change with both age and L_2 proficiency.

In summary, communicative competence results from a complex interaction of grammatical, sociolinguistic, discourse, and strategic competence. The precise nature of this interaction is still very much open to speculation. The acquisition of communicative competence in two languages must include a cognizance of the interaction between the two language systems. The notion of universals in each of the communicative competence components, as well as that of transfer from one language system to another, leave open many questions regarding the process of becoming bilingual. A measure of sociolinguistic and strategic competence allows a degree of communicative competence even before the acquisition of formal rules of grammatical competence. Universal rules of social interaction and an effort or need to communicate through nonverbal means may get meaning across without language. In whatever complex ways the various components interact, the whole of communicative competence is always something other than the simple sum of all its parts (Savignon, 1983).

Bilingual communicative competence, both its development and its functioning, is difficult to comprehend when viewed against this theoretical framework which focuses on the interaction of its various components. This outline offers an approach to study the process of becoming bilingual, giving an overview of what bilingual children must acquire. The context of the

interaction within which acquisition takes place is critical: the language environment, in particular, the language input, and the individual variables children bring to the situation.

Language Environment

In current second-language acquisition theory, a distinction is hypothesized between language acquisition and language learning (Krashen, 1981, 1982). Language acquisition is a natural, subconscious process that occurs in informal environments when the focus is on communication or meaning. Through this process, children acquire a first language and, at times, become bilingual. Language learning, in contrast, is a conscious process that occurs in formal learning environments, as in certain school activities, and focuses on language form and grammatical competence. It is viewed as being available to older children, probably around puberty, and to adults developing a second language. Of the two processes, language acquisition is central. Language learning simply develops a system to edit language output.

Krashen (1982) further argues that the true causative variables in L_2 acquisition derive from the amount of comprehensible language input that the acquirer receives and understands and the strength of the affective filter--the set of affective variables that, taken together, provide the degree to which the learner is open to receive language input.

The most important characteristic of input is that it is comprehensible, that it makes sense. This is often achieved when the person providing the input uses a slower rate and clearer articulation, more high frequency vocabulary, fewer idioms, and syntactic simplification with shorter sentences. Caretakers appear to do this intuitively with young children acquiring L_1, as do sensitive second-language teachers.

Optimal input is interesting and relevant to the acquirer. This, of course, varies with levels of cognitive development and life experiences. Furthermore, input is not grammatically sequenced. Unsequenced, natural input, Krashen (1982) hypothesizes, will contain such a rich variety of structures that it will meet the child's appropriate developmental needs, providing structures a bit beyond the current level of language competence. Comprehensible language must also be provided in sufficient quantity to make enough "just right" input for acquisition processes to occur. Providing concrete "here and now" experiences that involve the child contributes to meeting requirements for optimal input.

The affective filter hypothesis captures the relationship between affective variables and the process of L_2 acquisition by positing that a variety of affective variables are related to success in L_2 acquisition (Krashen, 1981). Three major categories emerge: motivation, self-confidence, and anxiety. High motivation, a good self-image, and low anxiety all contribute positively to reducing or lowering the affective filter through which input must pass on its way to the brain. In this view, input is the primary causative variable in L_2 acquisition; affective variables either impede or facilitate the delivery of input to the brain where language processing occurs.

RELATIONSHIPS BETWEEN FIRST- AND SECOND-LANGUAGE ACQUISITION PROCESSES

The process of second-language acquisition is not completely different from first-language development, but the two processes are not exactly alike either (Fillmore, 1976). An issue interesting to both researchers and practitioners, the relationship between the processes involved in the development of the bilingual child's languages, has been addressed in a number of studies.

In terms of similarity, McLaughlin (1978), maintains that both first- and second-language acquisition "involve essentially the same general (perhaps universal) cognitive strategies" (p. 206). Research indicates a unity of process that characterizes all language acquisition, L_1 or L_2, and that reflects the use of similar acquisition in all aspects of communicative competence. Ervin-Tripp (1981) has provided evidence not only that early sentences in a second language are similar in form and function to those of the first language, but also that L_2 learners can bring their conversational knowledge from L_1 to bear on acquisition of the new language. This prior knowledge can give older children a significant advantage over L_1 learners. With striking frequency, L_2 data illustrate parallels with child L_1 acquisition. Many of the developmental sequences in syntax, for example, observed for children monolingual in the target language have also been observed for children acquiring that language as their L_2. Simplified word order structures seen in L_1 development are regularly found in L_2 data even though the child has acquired more complex structures in L_1. Overgeneralization processes characteristic of L_1 acquisition are seen in L_2 overgeneralizations of lexical and morphological forms.

Ravem's (1975), among other studies, illustrated support for similar development of grammatical sequences between L_1 and L_2 acquisition. He studied the development of English by his Norwegian-speaking children, ages 3 and 6. In the acquisition of negatives, he found expressions such as "He not like the house" and "He don't like it," rather than the forms predicted from Norwegian, "He like not the house" or "He like it not." Studying Spanish-speaking children acquiring English at school, Adams (1978) found that the acquisition of questions and negatives resembled very closely that for English L_1 acquisition. Wh-questions, for example, fell into three developmen-

tal stages, from "What you want?" to overgeneralization of be inversion in "I don't know where is mines" to, finally, correct use of be. Do-support emerged in yes/no questions before it appeared in wh-questions. Tense was often double-marked as in "Where did he found it?" All of these structures are typically found in L_1 English data.

While research does not support the hypothesis that the acquisition of a second language is identical to that of the first, neither does it support the position that the two processes are different, as was maintained by the interference hypothesis based on contrastive analysis of the two languages. As Wode (1981) points out, observed differences in developmental sequences may be due to differences in the total setting in which language acquisition occurs, including cognitive maturity and situational variables. L_1 and L_2 development may be parallel because both employ the same strategies and processes. Basically, it remains to be shown that L_2 acquisition is different from L_1 acquisition in any fundamental way. Further, the more balanced the input, the more the bilingual child's language acquisition tends to correspond to patterns in monolingual language development (McLaughlin, 1981).

Along with the striking parallels between L_1 and L_2 acquisition, however, differences can be observed. Second-language learners bring to the task increased experience, including L_1 communicative competence, greater levels of cognitive development, and maturity. On the one hand, Fillmore (1976) observes, added age and experience may facilitate the process and, on the other hand, knowledge of a first language may inhibit it in some ways. As she points out, prior knowledge of a first language may lead children to look for familiar ways of expressing the new language meanings they may be accustomed to expressing in the L_1. This may lead to making distinctions in the L_2 that were relevant in the first language but are inappropriate in the second.

Furthermore, the learner also brings certain attitudes toward the second language and culture, ones not yet formed in the young child acquiring L_1. Individual characteristics and learning styles developed by older children may serve to inhibit or promote L_2 acquisition processes. Personality variables appear to hold special significance for L_2 acquisition. This seems to play a less prominent role for young children.

In summary, children acquiring a second language bring to the task higher degrees of cognitive development, increased age and experience, attitudes toward both their first and second language and culture, their unique set of personality characteristics, together with linguistic universals functioning in bilingualism (Kessler, 1976). Of the research investigating similarities and differences between L_1 and L_2 acquisition, most has focused on aspects of grammatical competence, phonology and syntax in particular. Little is yet known about other aspects of communicative competence: similarities and differences in sociolinguistic, discourse, and strategic competence. It may be speculated, however, that as more is learned about these components, many of whose aspects are culture-bound, interactions between the processes of transfer from L_1 and overgeneralizations in L_2 may play a central role.

SIMULTANEOUS BILINGUALISM IN VERY YOUNG CHILDREN

Although much is yet to be learned about how very young children acquire communicative competence in two languages concurrently, carefully detailed diary studies have given insights into the process. One of the classic studies, Leopold's work, published in four volumes (1939, 1947, 1949a, 1949b), documents the development of English and German for his own daughter, Hildegard. From his observations certain generalizations emerge and have been supported and extended in subsequent studies.

Input Characteristics and Effects

In the natural process of becoming bilingual in infancy, two basic patterns of bilingual input can be distinguished. In one, the child is presented each language in a one-person, one-language association. In the case of Leopold's Hildegard, English input came from the mother and German from the father. The second basic pattern is one in which each language is not person-specific, as when at least one of the caretakers is bilingual and uses both languages with the child. The picture becomes further complicated on closer examination. Two types of input may occur: Caretakers may alternate two languages, depending on the nature of the discourse situation, or they may use code-switching within the same discourse. From the same caretaker, consequently, the child may get qualitatively different input of two languages: single-language input determined by discourse occasions and code-switching input on other occasions. Extensive code-switching occurs, for example, among Spanish-English adult bilinguals in the southwestern United States. For many young children this serves as the primary type of input rather than one that clearly distinguishes two language systems.

Another aspect of language input concerns the quantity of input for each language. The language environment may provide a reasonably balanced exposure to the two languages or, alternately, higher frequency or greater quantity for one of the languages. All of these factors interact in complex ways that affect the degree of bilingualism, the rate of realization of two distinct systems, and the extent of interference or negative language transfer.

However intricate may be the interaction of input factors that facilitate or inhibit the development of two languages, all studies of infant bilingualism give evidence of uneven development of the two languages. One rather obvious generalization is that children develop faster in the language used

most in their environment. A completely balanced exposure to two languages is often, if not always, very difficult to maintain in developmental bilingualism. Various researchers have argued that once one language becomes dominant and the other reduced to a subordinate state, interference between the two languages becomes evident (Leopold, 1949b; Burling, 1959). This is a phenomenon more accurately defined as language mixing (Lindholm and Padilla, 1978). It may happen when one language is spoken in the home and the other is acquired through interaction with playmates (Oksaar, 1976). The most mixing seems to occur when the adult imput in the child's language environment uses extensive code-switching. In general, optimal input for reducing mixing appears to be dual-language input in the home that consistently associates one person with one language (McLaughlin, 1978). In documenting the bilingual development of his son in Spanish and English, Fantini (1976) gives evidence that the more separate the environments in which each language is used and the more consistent the language use within each of these environments, the more rapidly and easily bilingual children learn to differentiate their linguistic systems.

Close inspection of the nature of mixing indicates that it occurs predominately at the lexical level (Fantini, 1976; Swain and Wesche, 1975; Cornejo, 1973). An investigation of bilingual mother-child interaction by Garcia and Aguilera (1979) shows that mothers seem to use language-switching as a clarification device and that children tend to mix languages at the lexical level but keep them separate in other components. Much remains to be investigated on the issue of language mixing in developmental bilingualism.

Language Attitudes

Language input factors, with all of their complexity, further interact with affective or attitudinal factors that the developing bilingual child brings to the language acquisition situation.

The acquisition of two languages depends not only on qualitatively and quantitatively rich language input but also on the child's social needs. These needs frequently lead to attitudes marking each language as necessary or not necessary. Playing with other children assigns the feature of necessary to the language of that social interaction and, commonly for bilingual children, a negative marking is assigned for the language of parents when it differs from that of playmates. Where the social need of a language is minimal, use of that language is reduced.

As a result of interaction between balance in language input, social needs for each language, and resulting attitudes (among other variables), bilingual children typically go through rejection stages for one of their developing languages. This situation may persist until change occurs in one or more of the variables. Itoh and Hatch (1978) document the rejection stage of Takahiro, age 2 years, 6 months, whose home language was Japanese. English was reserved for the nursery school where he was enrolled. During his first three months there he played in isolation and would not respond to his English-speaking teacher. English, at least during that period, was not necessary for Takahiro in spite of the surrounding environment. He rejected the English input, making no effort to utilize it socially. Gradually, however, conditions changed. He began to use a strategy of repetition, first with adults and then with children, mimicking both their language and behavior. This active interest in the English around him led to cooperative play and to

extensive English-language development. Both the quantity and the quality of English input had shifted dramatically in favor of English acquisition.

From studies of developmental bilingualism, a picture emerges that consistently identifies at least two stages by which children become bilingual: the first, an undifferentiated or single language system; the second, differentiation into two distict systems.

Stage One: A Single System

Infants who experience dual language input from the onset of language development or before the first language system is in place appear to form one single language system comprised of elements of both languages. A Spanish-English bilingual child who calls for her **kitty-gato** rather than **kitty-cat** illustrates a combined system in which English **kitty** and Spanish **gato** belong to a single, undifferentiated system. This illustration on the word-forming level is also evident in other components of grammatical competence. At this stage, input is taken from both languages and acted on by cognitive processes to form a single language system. Since it is constructed from elements of two languages, it may be referred to as a mixed language system. Typically, children juxtapose words from both languages in a single utterance, as in the mixed Spanish-English utterance, "Have soda en casa, Mom?" for "Can I have soda when we get home, Mom?" or "Have agua, please?" for "Can I have some water, please?" Such expressions also illustrate normal developmental syntactic processes for monolinguals--omissions of obligatory function words and morphological markers. On the lexical level, generally, children at this stage do not know the names in both languages for an object (Volterra and Taeschner, 1978). Morphologically, they may combine stems from one language with affixes from another (Oksaar, 1976; Burling, 1959).

The pattern for the phonological system at this stage varies with balance between the two languages and normal developmental processes. A number of studies have noted the initial undifferentiated system. Sounds that are easy to produce are expected to appear first. Some children seem not to mix sound systems (Oksaar, 1976); in other cases, when one language is dominant, sound features of that language are substituted for those of the subordinate language (Burling, 1959). At other times, words that contain sounds difficult to produce are systematically avoided (Celce-Murcia, 1978).

Of significance is evidence that the undifferentiated system that developing bilingual children construct at this stage is a unique system, distinct from either of the two languages presented to the child. In this way, the process of constructing the undifferentiated or mixed language system parallels the creative construction process that distinguishes the child language system of the monolingual child from the adult system (Brown, 1973). The development of a bilingual system taps the same basic developmental processes used in monolingual development, moving from holophrastic to syntactic, rule-governed utterances. As Titone (1983) summarizes, "Generally speaking, it can be said that bilingual development in young children follows an evidently regular course, which is constant throughout different children and different ages" (p. 175). Swain (1972), in her study of French-English bilingual children, and Kessler (1971), studying Italian-English bilingual children, both maintain that the two languages of bilingual children are encoded not separately but as a common core of rules. Language-specific rules appear later during the process of language differentiation.

Stage Two: Differentiated Systems

As bilingual children develop, they gradually begin to differentiate between the two language systems. The precise age at which this occurs varies with the interaction of input conditions, language balance, and other linguistic and sociolinguistic variables. Fantini (1976), for example, reports the use of distinct, separate language systems by age 2 years, 8 months, for his son. Imedadze (1967) reports 2 years, 4 months; Volterra and Taeschner (1978) found age 2 years, 6 months. At whatever age it occurs, differentiation may be identified when the child starts to use the two languages distinctly to communicate with different people in different languages.

Once the child recognizes and differentiates the two language systems, language alternation or code-switching becomes routine, depending on the conditions represented by the person addressed or the specific situations. Bilingual children learn to identify a specific language with a specific person or age group and with specific situations. Ease of switching depends in large measure on the degree of balance of the two languages. The more equally the two languages are developed and the more regularly both are used, the easier it is to draw on either one. If one is subordinate, the bilingual child exhibits difficulty using that language and may experience a period of silence until some degree of balance is achieved. In general, however, children whose language is more developed produce fewer mixed utterances than children at earlier stages of development (Redlinger and Park, 1980).

Communicative Competence

Although a complete mapping of each component of communicative competence for children concurrently developing two languages is not available, certain features have been identified.

Grammatical competence. In separating the two language systems, the developing bilingual must distinguish certain sounds, syntactic structures, and lexical items as language specific. Evidence suggests that development of the phonological system is not significantly different from that of the monolingual child. In addition to mastery of the sound segmentals, the child must also recognize and distinguish the suprasegmental phonemes of each language, the relevant stress, pitch, and juncture features. The order of acquisition or differentiation appears to parallel that of monolingual L_1 development.

Syntactically, the sequence of development for various grammatical structures appears to follow normal patterns for monolingual children (Carrow, 1971). Kessler (1971) found that simultaneous Italian/English-bilingual children acquired structures shared by both languages at approximately the same rate and in the same sequence. A language-specific structure follows later if it is syntactically more complex than a related one in the other language. These findings are consistent with other studies that confirm that bilingual children follow the same basic sequence as monolinguals (Swain, 1972; Mikeš, 1967). Delay in the acquisition of inflectional morphology has been observed in children becoming bilingual, with morphology generally following the development of syntax (Vihman, 1982a; Fantini, 1976; Murrell, 1966). Others have shown no morphological delay (Imedadze, 1967; Burling, 1959). The structure of the languages involved and individual learning strategies may intersect to form differing patterns.

Semantic development parallels that of monolingual development with overextensions frequently occurring, a characteristic of child language. One difficulty for bilinguals is that the meanings of some words have different semantic ranges in the two languages being acquired. For example, leg in English applies to both human and animal legs and is distinguished from

foot. Spanish, however, distinguishes a human leg (pierna) and foot (pie) from an animal leg or foot (pata). As de Villiers and de Villiers (1979) point out, "Children exposed to two or more languages from the beginning tend to be a little slower in their early vocabulary development because each object and event is paired with more than one word. However, they soon catch up with children learning a single language" (p. 24).

Sociolinguistic competence. One of the crucial features of simultaneous bilingualism is the acquisition of the rules that distinguish the two languages, permitting recognition of the appropriateness of one language with a specific person or situation. This competence develops in the stage when the two languages become differentiated.

Discourse competence. Although much has yet to be mapped out for the simultaneous acquisition of rules governing specific language functions in two languages, one may predict that these rules, like those in other components of competence, parallel those for monolinguals. Research is currently being done in this area.

Strategic competence. Although relatively little research in simultaneous bilingualism has focused on the cognitive and social strategies outlined by Fillmore (1979) for child L_2 learners, anecdotal evidence reveals that children concurrently acquiring two languages employ similar strategies. Ventriglia's (1982) taxonomy for strategies that facilitate second-language development--"chunking," "copy-catting," and "wearing two hats"--can be observed in very young bilingual children's efforts to use language in social situations.

Chunking, a cognitive-developmental strategy, is used by children to imitate phrases or whole utterances that have meaning for them but are unanalyzed and memorized as wholes rather than constructed from constituent parts. It is

a strategy that develops gradually (Vihman, 1982b). By using a chunk of meaningful language, children can accomplish communicative goals before they have an internal grammar enabling them to create certain utterances. For example, Itoh and Hatch (1978) document a number of these used by Takahiro, the child growing up in Japanese and English environments. Among formulaic chunks actively used were the "I wanna..." and "I get..." patterns. Lita, a Spanish/English-bilingual child in Texas observed by Lopez-Schule (1982) extensively used the same "I wanna..." pattern in both English and Spanish (Yo quiero...) at the early stage of differentiating her two languages around age 2 years, 9 months.

Copy-catting, a social-affective strategy, allows children to imitate another person in role-play by copying both their verbal and nonverbal behavior. Takahiro's efforts to imitate other children in the nursery school, a strategy that helped in his English acquisition, is an example of copy-catting.

The bilingual-bicultural strategy of wearing two hats employs the use of code-switching, usually spontaneous, to convey cultural or social meaning. It can be a conscious or unconscious selection of language variants, taking into account the social situation and the child's relation to the listener. Lita, at 2 years, 3 months, demonstrates this strategy in the following conversation with her mother:

Mother: **¿Qué quieres, Lita? Quieres leche?**
(What do you want, Lita? Do you want some milk?)

Child: **No leche.**

Mother: **¿Quieres agua?** (Do you want some water?)

Child: **No agua.**

Mother: **¿Quieres jugo?** (Do you want some juice?)

Child: **No jugo. Candy, mamí.**

Mother: No candy, no, Lita.

Child: Candy! (with great emphasis, followed by a long pause)
...Dame dulce, please. (Give me candy, please.)

(Lopez-Schule, 1982, p. 10)

The language switch from English to Spanish in asking for candy took place in a very slow, deliberate manner, evidently with the expectation that the situation to bring about the realization of candy called for Spanish.

Strategic competence plays a central role in drawing children into the social situations which ultimately provide the input necessary to trigger language acquisition processes.

Awareness of Two Languages

The point at which bilingual children acquiring two languages simultaneously develop a metalinguistic awareness of their two languages varies individually but appears to develop before the school years. In another conversation with her mother, Lita, at age 3 years, 6 months, gave the first indication that she was aware of her access to two languages. After asking Lita to give several examples of Spanish and English words, the following exchange occurs:

Mother: **¿Tu sabes hablar mucho o poquito inglés?**
(Can you speak a lot or a little bit of English?)

Child: **Mucho inglés.**

Mother: **¿Y tu sabes hablar mucho o poquito español?**
(And can you speak a lot or a little bit of Spanish?)

Child: **Mucho español.**

Mother: **¿Y oyes, Lita, a ti te gusta hablar el inglés o el español o los dos?**
(And tell me, Lita, do you like to speak English or Spanish or both?)

Child: **Dos.** (holds up two fingers)
That's inglés. (points to one finger)
And that's **español!** (points to another finger)

(Lopez-Schule, 1982, p. 11)

It is important to understand that bilingualism is extremely fragile in very young children. Removed from bilingual input and the need to draw on the two language systems for social interactions, a bilingual child can soon lose one of the languages (Elliot, 1981). Burling's (1959) Garo/English-bilingual son lost Garo within six months of leaving India even though he had used it for two years, from ages 1 year, 4 months, to 3 years, 4 months. On the other hand, continued input can stabilize the bilingualism, allowing for distinct, separate language use, as it did for Leopold's Hildegard. By age 7 she could keep her German and English use separated, even though her English was dominant over her German (Leopold, 1949b). To be maintained, bilingualism requires the continued use of both languages in communicative naturalistic settings.

SEQUENTIAL BILINGUALISM IN PRESCHOOL CHILDREN

At about three years of age children normally have developed basic communicative competence in their first language. Refinements in the various components--grammatical, sociolinguistic, discourse, strategic--continue to occur during the school years. However, in the preschool period, children have extensive access to language. To undertake the process of acquiring another language around age 3 is to add a second language to that already basically in place. This is a natural process occurring in informal environments when attention is directed to the meaning of utterances rather than to their linguistic form. Preschool children utilize this process exclusively in developing a second language (Krashen, 1982). As such, the process draws on the

causative variables of language input provided by the environment and the affective filter variables the child brings to the situation. Contrary to popular views, not all children acquire a second language easily or successfully. When input is deficient in quality or in quantity, when children have negative attitudes or do not have access to the cognitive and social strategies that facilitate language acquisition, the process may be greatly impaired. If children are put on the defensive by the requirement to perform too early in the L_2, the process can be interrupted or slowed down. Other children actively processing the new language input may have long "silent periods" during which they do not verbally perform in the second language, which may give misreadings on the nature of their bilingualism.

Recent research has increasingly focused on th process of language acquisition and the variables the learner brings to it; nevertheless, examining aspects of the system the learner constructs for gaining further insights into the process can be profitable.

The product of the L_2 acquisition process is generally referred to as an interlanguage (Selinker, 1972; Corder, 1981), a unique system constructed by the child from the portion of L_2 input that the brain acts on, the intake. The interlanguage is a dynamic, fluid system, shifting and changing as the child reorganizes it to accommodate new rules. A developmental continuum, the interlanguage is characterized by the so-called errors that mark divergence from the native-speaker norms for the target language. Traditionally, this continuum is segmented into broad stages--beginning, intermediate, advanced--that roughly take into account how closely the interlanguage approximates the native-speaker system. In this view, errors play an inevitable and necessary role for the successful outcome of the L_2 process. They are a

function of the process; rather than indicators of failure, they are evidence of the learner's acquisition strategies.

Developmental Stages

Unlike simultaneous bilingualism, which takes as its starting point the onset of language or an early point in child language, sequential bilingualism takes as its starting point the L_1 system. Recent research indicates that this system is drawn upon primarily in the early stages of L_2 development. As the process continues, the L_1 has less influence and the errors observed in the interlanguage increasingly resemble those of the normal developmental errors characterizing children's acquisition of the target language as their L_1. Aspects of interaction between the child's L_1 and L_2 may continue, however, throughout the development of the second language. Interference, utilization of rules from L_1 in the developing L_2 system, does occur but less extensively than was once assumed. In other words, children appear to follow their own built-in syllabi which resemble in large measure, although not identically, those of children acquiring the target language as their L_1. As a result, errors tend to be similar for all children acquiring the same L_2 even though their first languages differ. Some evidence for this is seen in a series of morpheme studies conducted with children from diverse first languages acquiring English as their second language (Burt and Dulay, 1980). Furthermore, errors that children make appear to be remarkably similar to those made by adults learning the same L_2.

Developmental stages may be defined in terms of the rules acquired in the L_2. Meisel, Clahsen, and Pienemann (1981) argue, however, that L_2 acquisition is not a linear process following a straight line from the starting point to proficiency in the target language. Although they do not exclude the

possibility of developmental stages identified by predictably emerging rules, they point out that if they exist there may be considerable variation within a stage. Further, changes in the developing system do not necessarily indicate a new stage of development. Moreover, there is no reason to assume that the process of L_2 acquisition in a natural setting necessarily starts with "easy" rules, with the "hard" rules at a later stage. Rules develop as a response to communicative needs, not linguistic difficulty. As a result, a complex rule with high probability of error may be acquired early but used deviantly over a long period of time. Other rules, of course, might be applied correctly from the beginning.

Longitudinal studies with corroborative cross-sectional studies of L_2 learners provide insights into developmental stages. However, L_2 acquisition does not simply consist of acquiring an increasing number of rules. In the process of adding new rules, some are dropped and others changed. Analysis of the grammatical complexity of a language sample from any one learner does not give sufficient information to determine the specific developmental stage at that time. Furthermore, language does not develop uniformly in all components. Progress in one area does not imply similar developments in all others. Assessment of developmental stages is further complicated by the fact that, in the effort to communicate, a second-language learner does not necessarily reveal the highest level of development of the system. The need to get a message across may lead to certain strategic shortcuts that obscure the system's highest level of development.

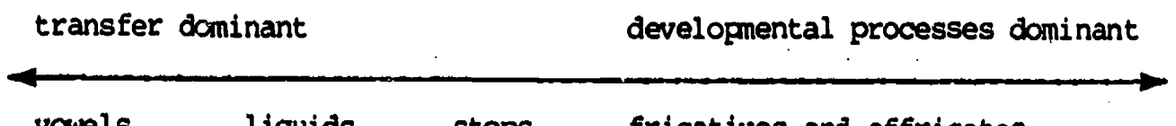
Communicative Competence

More research is needed on children's development of L_2 communicative competence. Nevertheless, certain observations can give insights into processes for sequential bilingualism.

Grammatical competence. In acquiring rules of phonology, morphology, syntax, and semantics, children developing a second language engage in a type of "juggling act," acquiring portions of each component in a kind of multi-dimensional fashion with elements of each component undergoing acquisition simultaneously.

The influence that the L_1 exerts on L_2 acquisition has received considerable research attention, where two competing hypotheses are readily discernible. The developmental hypothesis takes the position that L_2 acquisition closely parallels L_1 development. Language transfer from L_1 to L_2 assumes only a minor role. Conversely, the transfer hypothesis holds that the L_1 system affects acquisition of the L_2. In its strong version, difficulties can be predicted by a contrastive analysis of the two language systems. These difficulties result from negative transfer or interference from the L_1. Little empirical evidence supports this strong position but research does support a role for transfer in the second-language acquisition process.

Evaluating the phonology development of an Icelandic child, age 6, acquiring English as a second language in a naturalistic setting, Hecht and Mulford (1982) found that neither the developmental nor the transfer hypotheses alone explained the course of English phonological development. Rather, a systematic interaction between both positions accounted best for the acquisition order observed. They hypothesized the role of transfer and normal L_1 developmental processes for the target language as a continuum:



(Hecht and Mulford, 1982, p. 325)

For a fuller picture of the second-language sequencing of syntactic structures, studies are needed to address a much broader range of structures.

Of importance, too, is the observation of Wagner-Gough (1978) that the emergence of a linguistic form may occur prior to its function, an issue little investigated. In studying data from Homer, a 5-year-old, Wagner-Gough noted that the pattern for acquisition of the progressive -ing followed closely that for L_1 English. However, Homer had no awareness of the tense/aspect functions of **going, go, I'm go, I going,** and **I go,** used in semantic free variation to signal movement from one place to another in the present, past, and future. Such form-function relationships form essential units for development of the semantic system as well as the syntax.

Just as studies of L_1 acquisition of vocabulary show extensive individual variation so, too, do those which have examined L_2 development. Yoshida (1978) found that the Japanese-English bilingual child (age 3 years, 5 months) that he studied during a 7-month period acquired more nominals than words of other classes. Items from semantic categories closely related to the child's world were acquired first: lexical items for food, animals, vehicles, and outdoor objects. English vocabulary was also expanded through loan-words taken into Japanese from English. As children's life experiences vary, so too may the range of vocabulary.

Sociolinguistic competence. Rules for using language appropriately begin developing at a very early age in young children's L_1. Bates (1976) has shown that even before age 2 children can express a particular function of language with a variety of forms. Around age 2 years, 6 months, they learn to soften imperative force with **please,** for example. By about age 3 they know how to increase the degree of politeness even further. However, since development of this type of pragmatic competence also closely parallels cogni-

tive development, many of the refinements in rules governing appropriate social language use do not occur until the school years.

Preschool children engaging in L_2 acquisition processes can be expected to bring sociolinguistic sensitivity to the new language. However, acquisition of the necessary forms to carry out specific functions in a variety of ways and awareness of the social significance of specific forms are complex processes that, as for monolingual children, require further cognitive growth along with increased proficiency in the new language system. From a second-language perspective, certain aspects of linguistic and functional rules governing appropriate language use may be culture-specific as well as language-specific. It may be in this area, in particular, that L_1 interference plays its most active role. Second-language learners may expect to find equivalent expressions in the new language governed by the familiar L_1 set of social norms. Nevertheless, as Blum-Kulka (1982) observes, "the complex nature of the interdependence between pragmatic linguistic and social factors in the target language will often prevent him from getting his meaning across" (p. 53).

Discourse competence. From the earliest beginnings of L_2 development, children are engaged in discourse structuring. Their conversational partners may be caretakers or other children. In either case, topics must be nominated and understood, turns taken, information given, clarifications sought, and comments made. Saying something relevant is one of the first rules of conversation. Data from children acquiring a second language show these efforts from the beginning, even when they do not have the necessary vocabulary or structures to do it clearly. Strategies relying on nonverbal means or simple repetitions or something said by the conversational partner may be the only means available to accomplish this, but it is in the effort to

carry on the conversation that syntax is built up and progress made in L_2 development (Hatch, 1983).

In child-child discourse, one dimension of relevance not present in child-adult interactions is language play, a nonliteral, rule-bound use of language. In Peck's (1980) analysis, children acquiring a second language not only engage in the process but also appear to develop language from it. She suggests that the kinds of practice opportunities for the sounds and forms of the L_2 and the intense affective climate that accompanies this type of conversation contribute productively to L_2 development. Children attend to each other's utterances intensely and put pressure on each other to continue contributing to the language play activity. Another aspect of child-child discourse is the language of games in which chunks quickly learned and used repetitively appear, as in **my turn, give it to me, throw it to me,** and **I won.** Access to these chunks contributes to involvement in the social interaction with other children. This facilitates the input necessary for further L_2 acquisition.

Strategic competence. When children are confronted with unfamiliar input, they draw on one of the fundamental properties of learning, formation of expectancies based on prior experience. Keller-Cohen (1981) presents evidence that one strategy children acquiring a second language employ, in addition to using their general knowledge of the world and contextual cues, is to search for structural similarities between the familiar L_1 and unfamiliar L_2. This might also be described as an aspect of what Ventriglia (1982) calls bridging, one of the first clearly observable cognitive-developmental strategies employed in L_2 acquisition, through which children appear to tie L_2 words to concepts they already know in their L_1.

From the bridging strategy, children move to chunking, use of formulaic expressions as unanalyzed wholes. The most detailed study of this strategy is Fillmore's (1976) study of five Spanish-speaking children, ages 5-7, acquiring English. Observing the individual variations apparent in the group, she emphasizes the vital function formulas serve in opening communication channels with L_2 speakers. Expressions such as **lookit**, **you know what?**, and **I wanna play** were used by the children to gain access to crucial L_2 input. The most effective L_2 learner in the group, Nora, not only used chunks extensively but also learned rapidly to analyze them to get frames she could use productively, the strategy of creating. These strategies served Nora well in becoming a part of the social group that spoke her new language. Fillmore concludes that the strategy of acquiring chunks or formulaic speech is central to L_2 acquisition.

Following Ventriglia (1982), social-affective strategies children use in meaningful interactions in their new language include listening to others and sometimes trying to repeat, guessing and making inferences, code-switching, and role-playing. Learning-style strategies include beading, a style based on a need to learn one word at a time because of the importance attached to meaning; braiding, a style in which the learner attends to the context of chunks and the relationships among them; and orchestrating, a style in which the learner places much emphasis on sounds and their repetition. Children may combine all three learning-style strategies in the L_2 process. Motivational-style strategies play a role in prompting the use of certain social-affective strategies. In the first, crystallizing, children initially reject the second language and culture, maintaining their own. In cross-over, the preference is for the second language and culture over the first. Through

the third motivational style, crisscrossing, children choose to identify with both languages and cultures.

Through the various strategies available, children can successfully enter into conversations, using the basic building blocks of language development.

SEQUENTIAL BILINGUALISM IN SCHOOL-AGE CHILDREN

Although much of the process of L_2 acquisition remains the same for preschool and school-age children, certain differences also need to be taken into account. Increased age, cognitive maturity, and more extensive language experience are variables that can enhance the process. Other variables that play a critical role are differences in the language environment, including kinds of language input and the structure of the classroom setting, together with the affective environment created and the more highly developed affective filters children bring to the situation. At school, too, a heightened metalinguistic awareness of language is developed as children become aware of language as a separate entity. Perhaps most crucially, however, a major difference is in the definition of second-language proficiency. This involves orality, listening, and speaking for preschoolers and, additionally, literacy, reading, and writing for school-age L_2 learners.

Language Enviroment

Language at school differs in many ways from language outside the classroom--at home and at play. Not only does it include much new content but also it is used to develop new competencies in an array of cognitive processes. The highly context-bound oral out-of-school language gives way to increasingly decontextualized language as children learn to read and rely on reading for much of their information. New types of discourse appear in the teaching-

learning process. New styles of language use, even in spoken language, may be required. These and other factors combine to provide differences in the language input from what younger children generally experience in preschool years. For school-age children beginning L_2 acquisition, these differences compound the task of developing a new language. Informal, out-of-class varieties of the L_2 are needed to interact socially with peers. At the same time, a more formal, language-at-school variety is needed for school success. For a second language to develop its total range, rich, varied input is needed to facilitate development in all aspects of the L_2 necessary for success, socially and academically. The quantity and quality of the input available and the extent to which each child uses it are affected by many factors. The school's way of structuring the input and the child's own set of characteristics brought to the L_2 task interact in complex ways to facilitate or inhibit the process.

Although affective variables play a role in even young children's bilingual development, they may exert stronger effects with increasing age and maturity. Attitudes toward the new language and culture are crucial. In addition, they may interact with the affective climate set in the classroom by the teacher. Negative responses in any of these dimensions can inhibit the L_2 process just as very positive ones can promote it (Fillmore, 1979).

Relationships between classroom structure (the instructional style of open classrooms with many learning centers as opposed to more traditional teacher-centered arrangements) and the composition of the class (the ratio of L_2 learners to native speakers) are crucial variables which interact with the individual variations among L_2 learners, as shown by Fillmore's (1983) longitudinal research project with young children. An open class structure works only if there are enough native speakers of the target language to allow

for sustained interactions with L_2 learners and, consequently, enough input. In such a classroom setting, however, language as input will depend on a child's ability to seek out the children in the class who speak the target language to initiate a sustained interaction with them. Not all children can do this. For classrooms in which the concentration of L_2 learners is high, a more teacher-centered structure is necessary to ensure adequate input. Success depends largely on the teacher's own sensitivity to each child's proficiency level and ability to make the modifications necessary for comprehensible input for each child. Even though the orientation may be teacher-directed, the teacher, nevertheless, must manage to interact with the children individually and frequently enough to make L_2 development possible. Again, the classroom setting interacts with the individuals' characteristics. As a result, some children are successful L_2 learners; others are not.

Individual differences themselves result from interactions between the nature of the task of L_2 acquisition, the strategies needed for the task, and the personal characteristics of the learner (Fillmore, 1979). When these differences interact with variations in the classroom setting, the development of a second language at school becomes a highly intricate process.

In an experimental program using peer tutoring, Johnson (1983) found positive effects on social interaction and English-as-a-second-language proficiency for a group of Spanish-speaking children paired with fluent English speakers. The increased verbal interaction and vocabulary comprehension in English pointed out the importance of using the language input of fluent target language speakers in designing L_2 programs. Also important in the school setting is allowance for a "silent period," during which the L_2 is developing. The length of this period may vary markedly among children (Day, 1981).

As part of the schooling process, children grow in a metalinguistic awareness of language. This marks perhaps the most general difference between child L_1 and L_2 development (McLaughlin, 1982). Children acquiring the L_2 in school already know, at least in a general way, what language is. However, as they develop cognitively, they also can benefit from overt, explicit focus on language form. This is the process of language learning, distinguished from the natural process of language acquisition (Krashen, 1981). It is not available to young children since it rests on various analytical abilities that come with cognitive growth during the school years.

Second-Language Proficiency in School Contexts

The communicative competence framework is useful to describe the acquisition of a second language, provided that it accounts for developmental perspectives applicable to children, recognizing that certain aspects of each component are mastered early and others later in the school years, even for native speakers. In addition, it is necessary to consider what constitutes L_2 proficiency in school contexts and how the L_1 and L_2 are developmentally related, particularly as this affects language at school.

To distinguish linguistic demands at school from those of interpersonal contexts outside school, Cummins (1980, 1981) conceptualizes communicative proficiency along two continuums. One continuum relates to the range of contextual support available to the language users. On the one end, context-embedded communication relies strongly on paralinguistic and situational cues to language use, basic interpersonal communication skills (BICS) involving face-to-face language encounters. On the other end of the continuum, language is primarily context-reduced, relying essentially on linguistic cues to meaning involved in cognitive/academic language proficiency (CALP), the literacy

related aspects of language use. The second continuum addresses the developmental aspects of communicative competence in terms of the degree of cognitive demands imposed by the task or activity. Initial L_1 acquisition, for example, is cognitively demanding and, at the same time, context-embedded. Preschoolers eventually are able to use cognitive-embedded language in a cognitively undemanding way. Second-language acquisition, in initial stages at least, is cognitively demanding, involving for school-age children both context-embedded and context-reduced language use. These varieties correspond to interpersonal oral language on the one hand and literacy-related language on the other. Academic success at school requires use of context-reduced, cognitively demanding literacy-related tasks in which L_2 users must participate actively.

Cummins (1981) argues that CALP is cross-lingual, that, once acquired, elements are applicable in any language context, L_1 or L_2. In other words, once this aspect of language proficiency is mastered in L_1 it will manifest itself in L_2 as soon as enough of the L_2 code is available. This explains why older second-language learners whose L_1 CALP is more highly developed may manifest CALP more rapidly in their second language than younger children whose L_1 CALP is less developed. For children who come to the L_2 acquisition task with CALP already well developed in L_1, the L_2 realization is highly favored. For those, however, who have little or no L_1 CALP, the process is further complicated (Cummins, 1979).

To learn a second language for school use, the child must learn to become aware of language as a separate structure and to use it in context-reduced forms where the meaning must be taken from the printed page without other cues, or written down so that the reader can take the message accurately without recourse to face-to-face encounters of spoken language. Differentiation

between context-embedded/context-reduced and cognitively demanding/cognitively undemanding tasks outlines a critical distinction between L_2 development in the preschool years and L_2 development at school.

SUMMARY

Children may develop communicative competence in two languages from the onset of language development (simultaneous bilingualism) or after the first language is in place (sequential bilingualism). In either case, the communicative competence framework for second-language proficiency provides a theoretical basis for studying language acquisition in bilingual children. Acquisition of communicative competence recognizes and distinguishes development in four components: (1) grammatical competence for mastery of the language code, (2) sociolinguistic competence for mastery of appropriate language use in various sociolinguistic contexts, (3) discourse competence for mastery of how to combine meanings and forms to achieve unity in a specific mode of communication such as a conversation, and (4) strategic competence for mastery of verbal and nonverbal strategies to compensate for breakdowns in communication or to enhance communicative effectiveness.

This sketch of language acquisition processes in bilingual children outlines similarities and differences in basic processes accounting for monolingual and bilingual language development. It further distinguishes children developing two languages simultaneously from those developing two languages sequentially. The latter are further differentiated for preschool and school-year contexts for second-language acquisition. Emphasis is given to the role of the language environment, the input available, and the individual variables children bring to the process.

To fully understand the acquisition of bilingualism in children, many factors must be taken into account. Consideration must be given to the developmental perspectives of communicative competence for very young children in contrast to that of older preschool children and school-age children. Furthermore, relationships between bilingual children's two languages--simultaneous as opposed to sequential orders of acquisition--enter into any analysis of language acquisition processes for child bilinguals. The development of aspects of communicative competence related to language use in school settings, particularly context-reduced, academic language proficiency, must also be examined. Becoming bilngual is an extraordinarily complex and uniquely human phenomenon.

REFERENCES

Adams, M. Methodology for Examining Second Language Acquisition. In E. Hatch (Ed.), **Second Language Acquisition.** Rowley, Massachusetts: Newbury House, 1978.

Bates, E. **Language and Context: The Acquisition of Pragmatics.** New York: Academic Press, 1976.

Blum-Kulka, S. Learning to Say What You Mean in a Second Language: A Study of the Speech Act Performance of Learners of Hebrew as a Second Language. **Applied Psycholinguistics,** 1982, 3, 29-59.

Brown, R. **A First Language.** Cambridge, Massachusetts: Harvard University Press, 1973.

Burling, R. Language Development of a Garo and English Speaking Child. **Word,** 1959, 15(1), 45-68.

Burt, M., and Dulay, H. On Acquisition Orders. In S. Felix (Ed.), **Second Language Development,** Tubingen, Germany: Narr, 1980.

Canale, M. From Communicative Competence to Communicative Language Pedagogy. In J. Richards and R. Schmidt (Eds.), **Language and Communication.** New York: Longman, 1983.

_____, and Swain, M. Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing. **Applied Linguistics,** 1980, 1, 1-47.

Carrow, E. Comprehension of English and Spanish by Preschool Mexican-American Children. **Modern Language Journal,** 1971, 55(5), 299-305.

Celce-Murcia, J. The Simultaneous Acquisition of English and French in a Two-Year-Old. In E. Hatch (Ed.), **Second Language Acquisition.** Rowley, Massachusetts: Newbury House, 1978.

Corder, S. P. **Error Analysis and Interlanguage.** Oxford: Oxford University Press, 1981.

Cornejo, R. The Acquisition of Lexicon in the Speech of Bilingual Children. In P. Turner (Ed.), **Bilingualism in the Southwest.** Tucson: University of Arizona Press, 1973.

Cummins, J. The Construct of Language Proficiency in Bilingual Education. In J. Alatis (Ed.), **Georgetown University Round Table on Languages and Linguistics.** Washington, D. C.: Georgetown University Press, 1980.

_____. Linguistic Interdependence and the Educational Development of Bilingual Children. **Review of Educational Research,** 1979, 49(2), 222-251.

_____. The Role of Primary Language Development in Promoting Educational Success for Language Minority Students. In **Schooling and Language Minority Students: A Theoretical Framework.** Los Angeles: Evaluation, Dissemination and Assessment Center, California State University, Los Angeles, 1981.

Day, R. Silence and the ESL Child. **TESOL Quarterly,** 1981, 15, 35-39.

deVilliers, P., and deVilliers, J. **Early Language.** Cambridge: Harvard University Press, 1979.

Dulay, H., and Burt, M. Natural Sequences in Child Second Language Acquisition. **Language Learning,** 1974, 24(1), 37-53.

Elliott, A. **Child Language.** Cambridge: Harvard University Press, 1981.

Ervin-Tripp, S. Social Process in First- and Second-Language Learning. In H. Winitz (Ed.), **Native Language and Foreign Language Acquisition.** New York: New York Academy of Sciences, 1981.

Fantini, A. **Language Acquisition of a Bilingual Child.** Brattleboro, Vermont: The Experiment Press, 1976.

Fathman, A. The Relationship between Age and Second Language Productive Ability. **Language Learning,** 1975, 25(2), 245-253.

Fillmore, L. W. Individual Differences in Second Language Acquisition. In C. Fillmore, D. Kempler, W. Wang (Eds.), **Individual Differences in Language Ability and Language Behavior.** New York: Academic Press, 1979.

_____. The Language Learner as an Individual: Implications of Research on Individual Differences for the ESL Teacher. In M. Clarke and J. Handscombe, On TESOL '82: Pacific Perspectives on Language Learning and Teaching. Washington, D. C.: Teachers of English to Speakers of Other Languages, 1983.

_____. The Second Time Around: Cognitive and Social Strategies in Second Language Acquisition. Unpublished doctoral dissertation, Stanford University, 1976.

Garcia, E., and Aguilera, R. Language Switching during Mother-Child Bilingual Interaction. In R. Andersen (Ed.), The Acquisition and Use of Spanish and English as First and Second Languages. Washington, D. C.: Teachers of English to Speakers of Other Languages, 1979.

Hatch, E. Psycholinguistics: A Second Language Perspective. Rowley, Massachusetts: Newbury House, 1983.

Hecht, B., and Mulford, R. The Acquisition of a Second Language Phonology: Interaction of Transfer and Developmental Factors, Applied Psycholinguistics, 1982, 3, 313-328.

Imedadze, N. V. On the Psychological Nature of Child Speech Formation under Conditions of Exposure to Two Languages. International Journal of Psychology, 1967, 2(2), 129-132.

Itoh, H., and Hatch, E. Second Language Acquisition: A Case Study. In E. Hatch (Ed.), Second Language Acquisition. Rowley, Massachusetts: Newbury House, 1978.

Johnson, D. Natural Language Learning by Design: A Classroom Experiment in Social Interaction and Second Language Acquisition. TESOL Quarterly, 1983, 17, 55-68.

Keller-Cohen, D. Input from the Inside: The Role of a Child's Prior Linguistic Experience in Second Language Learning. In R. Andersen (Ed.), New Dimensions in Second Language Acquisition Research. Rowley, Massachusetts: Newbury House, 1981.

Kessler, C. Acquisition of Syntax in Bilingual Children. Washington, D. C.: Georgetown University Press, 1971.

_____. Linguistic Universals in Anthropological Studies of Bilingualism. In W. McCormack, S. Wurm (Eds.), **Language and Man.** The Hague: Mouton, 1976.

_____, and Idar, I. The Acquisition of English by a Vietnamese Mother and Child. **Working Papers on Bilingualism**, 1979, 18, 65-90.

_____, and _____. The Acquisition of English Syntactic Structures by a Vietnamese Child. In C. Henning (Ed.), **Proceedings of the Second Language Acquisition Forum.** Los Angeles: University of California, 1977.

Krashen, S. **Principles and Practice in Second Language Acquisition.** Oxford: Pergamon Press, 1982.

_____. **Second Language Acquisition and Second Language Learning,** Oxford: Pergamon Press, 1981.

Leopold, W. **Speech Development of a Bilingual Child** (Vol. I: Vocabulary Growth in the First Two Years). Evanston, Illinois: Northwestern University Press, 1939.

_____. **Speech Development of a Bilingual Child** (Vol. II: Sound Learning in the First Two Years). Evanston, Illinois: Northwestern University Press, 1947.

_____. **Speech Development of a Bilingual Child** (Vol. III: Grammar and General Problems in the First Two Years). Evanston, Illinois: Northwestern University Press, 1949a.

_____. **Speech Development of a Bilingual Child** (Vol. IV: Diary from Age 2). Evanston, Illinois: Northwestern University Press, 1949b.

Lindholm, K., and Padilla, A. Language Mixing in Bilingual Children, **Journal of Child Language**, 1978, 5, 327-335.

Lopez-Schule, L. **The Simultaneous Acquisition of English and Spanish.** Unpublished research paper, University of Texas at San Antonio, 1982.

McLaughlin, B. **Children's Second Language Learning.** Washington, D. C.: Center for Applied Linguistics, 1982.

_____. Differences and Similarities between First- and Second-Language Learning. In H. Winitz (Ed.), **Native Language and Foreign Language Acquisition.** New York: New York Academy of Sciences, 1981.

_____. **Second-Language Acquisition in Childhood.** Hillsdale, New Jersey: Erlbaum, 1978.

Meisel, J., Clahsen, H., and Pienemann, M. On Determining Developmental Stages in Natural Second Language Acquisition. **Studies in Second Language Acquisition,** 1981, 3, 109-297.

Mikes, M. Acquisition des categories grammaticales dans le langage de l'enfant. **Enfance,** 1967, 20, 289-297.

Morrow, K. **Techniques of Evaluation for a Notional Syllabus.** London: The Royal Society of Arts, 1977.

Murrell, M. Language Acquisition in a Trilingual Environment: Notes from a Case Study. **Studia Linguistica,** 1966, 20, 9-34.

Oksaar, E. Implications of Language Contact for Bilingual Language Acquisition. In W. McCormack, S. Wurm (Eds.), **Language and Man.** The Hague: Mouton, 1976.

Peck, S. Language Play in Child Second Language Acquisition. In D. Larsen-Freeman (Ed.), **Discourse Analysis in Second Language Research,** Rowley, Massachusetts: Newbury House, 1980.

Ravem, R. The Development of WH-questions in First and Second Language Learners. In J. Schumann and N. Stenson (Eds.), **New Frontiers in Second Language Learning.** Rowley, Massachusetts: Newbury House, 1975.

Redlinger, W., and Park T. Language Mixing in Young Bilinguals. **Journal of Child Language,** 1980, 7(2), 337-352.

Richards, J. Talking across Cultures. **The Canadian Modern Language Review.** 1981, 37, 572-582.

_____, and Schmidt, R. Conversational Analysis. In J. Richards and R. Schmidt (Eds.), **Language and Communication.** New York: Longman, 1983.

Savignon, S. **Communicative Competence: Theory and Classroom Practice.** Reading, Massachusetts: Addison-Wesley, 1983.

Selinker, L. Interlanguage. **IRAL**, 1972, 10, 219-231.

Swain, M. **Bilingualism as a First Language.** Unpublished doctoral dissertation, University of California, Irvine, 1972.

_____, and Wesche, M. Linguistic Interaction: A Case Study. **Language Sciences**, 1975, 37, 17-22.

Titone, R. Psycholinguistic Variables of Child Bilingualism: Cognition and Personality Development. **The Canadian Modern Language Review**, 1983, 39, 171-181.

Ventriglia, L. **Conversations of Miguel and Maria.** Reading, Massachusetts: Addison-Wesley, 1982.

Vihman, M. The Acquisition of Morphology by a Bilingual Child: A Whole-Word Approach. **Applied Psycholinguistics**, 1982a, 3, 141-160.

_____. Formulas in First and Second Language Acquisition. In L. Obler and L. Menn (Eds.), **Exceptional Language and Linguistics.** New York: Academic Press, 1982b.

Volterra, V., and Taeschner, T. The Acquisition and Development of Language by Bilingual Children. **Journal of Child Language**, 1978, 5, 311-326.

Wagner-Gough, J. Comparative Studies in Second Language Learning. In E. Hatch (Ed.), **Second Language Acquisition.** Rowley, Massachusetts: Newbury House, 1978.

Widdowson, H. **Teaching Language as Communication.** Oxford: Oxford University Press, 1978.

Wode, H. **Learning a Second Language.** Tubingen, Germany: Narr, 1981.

Yoshida, M. The Acquisition of English Vocabulary by a Japanese-Speaking Child. In E. Hatch (Ed.), **Second Language Acquisition.** Rowley, Massachusetts: Newbury House, 1978.

Carolyn Kessler is an Associate Professor of English as a Second Language (ESL) and Linguistics at the University of Texas at San Antonio where she teachers graduate courses in second language acquisition theory and practice for the MA degree in teaching ESL. She has taught ESL at Stanford University and Immaculata College of Washington and was a Fulbright lecturer at the University of Rome.

Dr. Kessler is the author of the **Acquisition of Syntax in Bilingual Children** and has published extensively in the fields of second language acquisition and bilingualism. President of a Texas affiliate of Teachers of English to Speakers of Other Languages (TEXTESOL--II), she has contributed to bilingual and second language programs at the local, state, national, and international levels.

Dr. Kessler holds MS and PhD degrees in linguistics from Georgetown University and a BA in French and English from St. Mary-of-the-Woods College, where she currently serves on the Board of Trustees.