Language Development and Education

Children with Varying Language Experiences

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Language Development and Education
Also by Paula Menyuk

(with J. Liebergott and M. Schultz): EARLY LANGUAGE DEVELOPMENT IN FULL-TERM AND PREMATURE CHILDREN

Also by Maria Estela Brisk

BILINGUAL EDUCATION: From Compensatory to Quality Schooling
LITERACY AND BILINGUALISM: A Handbook for All Teachers
SITUATIONAL CONTEXT OF EDUCATION: A Window into the World of Bilingual Learners
Language Development and Education

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Paula Menyuk
and
Maria Estela Brisk
Dedication
To our grandchildren:
Laura Menyuk, Rachel Menyuk, Mira Menyuk, Max Menyuk, Miles Bierylo, Madison Menyuk
Maria Alejandra Trumble, Isabela Trumble

Acknowledgement
We would like to acknowledge all the children and their teachers from whom we have learned so much over the years.

P.M., M.E.B.
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Research in language development has blossomed over the past few decades. In addition to knowing much more about this process of development in all children, we know much more about variations in the process due to multi-cultural and linguistic backgrounds, and developmental anomalies. Language development, of course, plays a crucial role in education. It is the principal medium of instruction both through the air and in written form. As well as affecting social interaction and development in all areas, how well children acquire language will have a marked effect on their academic performance and their social adjustment.

Recommendations on how teachers and clinicians can enhance language development in all children are found in many places. It certainly appears in different places due to age, background and state differences (normal and non-normal) among children. Because it is scattered, a great deal of exploration needs to be done to find the information a teacher or clinician is looking for. We hope to bring these two topics, language development and education, together as we discuss aspects of language development during infancy, early childhood (pre-school years and primary grades), middle childhood, and adolescence and then educational practices that have been found to enhance that development.

The criteria we have used to segment the lower school years are both developmental and educational. That is, there are marked changes in language development between infancy, early childhood, middle childhood and adolescence. There are also marked changes in educational programs that are designed for infants, pre-school children, the children in the primary grades (school years 1 through 3 or 4), those in the upper elementary and middle-school years (school years 4 through 8 or 9) and those in high school (school years 9 through 12). The differences between developmental stages are not rigid because children develop at different rates. We chose to segment the book based on developmental changes because overall such changes are more consistent than the criteria used for segmenting school experience into levels in various countries.
The remarkable changes in language knowledge and use that occur during each of these stages of development will be described first. Then what has been found to be good educational practice during each of these stages will be discussed. Among other things, good practice involves awareness of and planning for diversity in the abilities of children. This diversity is a reflection of differences in experiences and state.

There are two aspects of variation that are stressed in the book. One aspect is variation in the course of development due to variation in state, that is children with language disorders. We have placed greater emphasis on variation in language experiences. More than half of the children in the world are raised in environments that provide them with more than one language. Therefore we considered it important to embed throughout the book issues concerning the development of bilingual learners. Discussing development among bilingual learners is more complicated than discussing that of monolinguals because degree of proficiency in each language and amount of use of each language vary among bilinguals and change within an individual over time. Therefore each bilingual presents a different developmental pattern. Bilingualism develops because children are exposed to another language and confronted with situations in which they must use it. Bilingual children may have been raised from birth in more than one language (simultaneous bilingualism) or they may have acquired a second language (L2) at any later point in their development (sequential bilingualism). As they develop language, they may acquire the L2 while maintaining their first language (L1) (additive bilingualism) or they may acquire L2 and lose L1 (subtractive bilingualism). Because children can be exposed to a second language at any of the stages of development described in this book, a 12 year old may be going through similar stages of L2 development as a 7 year old acquiring one language. Two 12 year olds may be at dramatically different stages of L2 development depending on their language experiences. Continuous development of the first language by second language acquirers will depend on whether children have continued access to education in that language.

Bilingual children’s language development is strongly impacted by a number of external and internal factors. These factors affect children at any age, depending on when they are intensely exposed to the L2. Given the unpredictability and complexity of bilingual and L2 development, we needed to make choices as to when to address the various aspects of development and factors affecting bilingual children and the
type of bilingual learners we cover in this book. We have distributed the themes of development and factors affecting learners throughout the chapters. The reader must understand that what applies to one age may also apply to another because children may be at the beginning stages of L2 development at any age. For example in reading about semantax development in the adolescent years, the reader will need to go to an earlier chapter for details on initial L2 semantax acquisition.

We have narrowed the focus to children who are immigrants to countries where English is the national language, such as the United States, Great Britain, Australia, and New Zealand or who were born in these countries to communities that use a language other than English in their daily interactions. In addition, we are assuming that the schools they attend use English as the medium of instruction. We have chosen to focus on bilingual children who come from linguistic and cultural backgrounds other than English and then attend English-medium schools because their presence is increasing in these countries. Educators and families are still struggling to determine how best to address these children’s language and literacy development.

There are other types of bilinguals in these countries such as native speakers of English who learn other languages, children raised bilingually by their families, and children who attend bilingual schools. However, while the large English-speaking countries are concerned with educating children in English who are not native speakers of English, many other countries are addressing the issues of bilingual or multilingual schooling in a somewhat broader way.

We have tried to write this book for undergraduates who are required to take a course in language development, and who are interested in going on to teaching or clinical work with children who are in various phases of development. We hope it could also be used as a source of information for teachers and clinicians who are now in the field, but who have had little previous information about current findings in the area of Developmental Psycholinguistics, the study of language development. The latter students may be returning to take courses or workshops to update their knowledge, and working towards a master’s degree. Therefore, both undergraduate and graduate students might use the book.
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1
Language Development in Infancy: Ages 0–3

1.1 Introduction

Language development during these very early years of life, from birth to about 2½ to 3 years, is very dramatic and rapid. From birth to 2½ years is the period usually labeled as infancy, in keeping with Piaget's description of these years (Piaget, 1926). The period starts with the baby, who spends much of the time sleeping, crying and cooing, and ends with the almost-3-year-old child who can engage in conversation with family members, peers and teachers in one or more languages. The home environment is of principal importance during these years since much of the infant's time is spent in that situation. However, over the past few decades care-giving and educational programs for infants have been developing in the U.S., as well as being available in some other countries for some time. Even though some aspects of language development are still very much the product of the familial situation in which a child is born, these programs can impact development as well, and can do so in a positive manner.

The social and economic situation of the family, and the culture and particular language(s) or dialect(s) in the environment seems to affect most markedly two aspects of language development for both monolingual and bilingual learners. These are vocabulary, or what has been termed lexical development, and also the use of language or what has been termed the pragmatics of the language. For bilingual children pragmatic knowledge includes choice of the appropriate language in the appropriate situations. There are also universal aspects of development regardless of environment. These universals of development also take place in two aspects of development. The first is in the acquisition of structural knowledge (how to combine words in utterances) or what we
and others have termed semantax. The term semantax is used because knowledge of syntactic structures and semantic relations are both required in comprehending word combinations. The second is in speech perception and production or what has been termed phonological acquisition.

We have used both the informal and formal words to identify the aspects of language we will be discussing because both types of words are used in the literature. Again, informal terms are vocabulary, uses of language, combinations of words and speech perception and production. The more formal terms are lexicon, pragmatics, semantax and phonology. In this chapter variation in development due to variations in the socio-linguistic context in which the child is born as well as universals in development will be discussed with respect to both children raised in English and those raised in two languages simultaneously.

There are developmental anomalies that can be identified early in life. These are sensorial problems such as deafness and blindness. Blindness is evident very early in life. Deafness is usually diagnosed in the United States, Canada, and Western European countries during the first year, although there are still deaf children who are not identified so quickly in some of these countries. Universal screening measures in hospital nurseries have played an important role in this early identification. Hearing loss and visual impairment, however, are usually not identified until later in life.

Some conditions of being developmentally delayed or challenged (earlier termed mental retardation) or cerebral palsied are also identified early. Other developmental anomalies which can affect language development such as learning disabilities and specific language impairment are usually not identified until the next period of development to be discussed, or even later. Because of the early diagnosis of some of these children their language development will be briefly discussed in this chapter.

1.2 Variations in language development: lexicon and pragmatics

There are two factors that are outstanding in causing variations in lexical development and pragmatics with normally developing children. These are socio-economic status, and cultural-linguistic factors. However, some of the milestones in development in these two areas are also universal. There is a very rapid rate of development in vocabulary
over this period, and children quickly learn to use language in ways that conform to the requirements of their society. Children in all environments begin to recognize words at about 10 months of age. This is true of infants in both monolingual and bilingual environments. However, bilingual children evidence crosslinguistic behavior in vocabulary acquisition. Hildegard used the German word *auto* (car) when she spoke both German and English, although she understood both *car* and *auto*. She also invented the word *auto peep-peep* for *airplane*. It was derived from the German word *auto* and the English word *peep-peep* meaning *bird* (Leopold, 1949). One child, when she realized she was using similar meaning words in her two languages, started using doublets, (bed-*lit* Flemish and French) for certain vocabulary items to make sure she would be understood. Eve for a long time would not use the verb *tomber* (fall) in French when speaking French because she had had a bad accident in a French-speaking context. Ronjat's (1913) child, as soon as she heard a word in one language, would request the equivalent in the other. A Spanish-English toddler who, when asked to name a list of pictures in one language, and on another day in the other, did it accurately for all words except when he saw a picture of a frog. During the English test he said *froggie* and during the Spanish test he also said *froggie* but this time used Spanish pronunciation.

There is great variability in bilingual children's vocabulary development. Some studies report that development in the stronger language is comparable to monolinguals that speak that language. Others claim that vocabulary develops more slowly in bilinguals when studied separately for each language and compared to monolinguals. One of the reasons is that bilinguals usually learn vocabulary for each language from different sources (one from mama and one from papa or one from the family and one from caregivers). The contexts provide development of different vocabulary at different rates. However, when adding together the concepts that bilinguals have acquired, as represented by the words they know, their number often exceeds those expressed in the vocabulary of monolinguals. Bilinguals' vocabulary may be “less masterful than a monolingual's in either of their languages, but is surely more extensive in terms of their communicative possibilities than any monolingual” (Bialystok, 2001, p. 62).

Despite variation most children’s vocabulary grows rapidly in the first 18 months of life, and even more rapidly after that. There have been studies that have found a vocabulary spurt at about 18 months in many, but not all children. A multitude of factors play a role in this spurt. This multitude includes cognitive factors, phonological abilities,
and variation in personality. These differences among infants can lead to some children experiencing a vocabulary spurt and others acquiring new words more gradually. Any delay among bilinguals in the development of vocabulary in their two languages usually evens out by grade 5. In the case of the heritage language, progress depends on its use in the school and larger society.

Studies of infants learning one language have found that typically at 10 months the average number of words recognized is about 10 words, and at 13 to 14 months is about 50 words. Infants usually produce about 10 words at 14 months and 50 words at 18 months (Menyuk, Liebergott & Schultz, 1995). These are the numbers that can typically be found in many studies of infants learning one language. There are several things that should be observed about these numbers. The first is the rapid rate of development. The second is the fact that words are usually understood before they are produced, although there are some exceptions. The third is that these are average numbers and that there is some degree of variation to be expected. However, having no spoken words at 18 months may be a sign of hearing loss or developmental problems. These conditions are very evident early on and can be easily measured at a very early time in the infant’s life.

The second aspect of lexical or vocabulary development that has been studied is the nature of the words that are produced early. In the study cited above (Menyuk et. al., 1995), the children’s first words were labels for objects, persons and animals (real or toy). These were the most frequent early words. They also produced words for actions (kiss, push), games (patty-cake and peek-a-boo), some adjectives (dirty, my), adverbs (here, up), and formulaic expressions (hi and bye). The frequency with which each category of word is used is a function of two factors: the language being acquired (some languages place greater emphasis on actions than on labels for things) and the cultural importance assigned to each category. An example of the first is that children acquiring Korean will have a higher proportion of verbs than nouns in their early vocabulary. An example of the second is that the use of formulaic expressions may be a function of the social importance given some words such as please and thank you by the child’s culture.

Lexical acquisition is a process of segmenting from a stream of speech a phonological sequence and relating that sequence to an object or event or quality of an object or event. Universal abilities in lexical development are the ability to learn these relations and the ability to store them in memory. The frequency with which a word is used makes it easier for it to be stored in memory and retrieved. Despite the
universals observed in lexical development, the socio-linguistic effects of the input from the environment can be observed early. There is a very direct effect of parental input on the rate of acquisition of words. This is one area of language development that is very dependent on the nature of the interaction between the caregiver and the child.

There are several things that caregivers do that seem to increase the rate at which new words are acquired both early and later in infancy, and these will be discussed in detail in the next chapter. Socio-economic status and culture affect the number of children a family will have. The mother of four children may have less time to engage in these interactions, which seem to speed up the rate of acquisition of words, than the mother of one. These factors may have an effect on rate of acquisition of vocabulary. Birth order affects bilingual learners. Older children do better at developing the family heritage language because they have more direct interaction with parents than younger ones.

Characteristics of mother–child interactions are not solely a function of socio-economic status and culture but also of the individual styles of mothers. This difference in style may be a function of the personality of the mother. Some mothers talk a great deal to their children while others do not. Socio-economic status may also affect the frequency with which mothers verbally interact with their children. Middle-class mothers may engage in teaching interactions more frequently than lower-income mothers. This style may be dictated to some extent by the cultural differences among mothers. In some cultures talking to babies is considered a waste of time; the notion might be that “since babies do not understand what is said to them” it’s a waste of time to talk to them. However, babies do learn by observation as well as by direct interaction.

Two other areas of language development are affected by socio-economic status and culture. One is pragmatic development and the other is literacy. We shall discuss pragmatic development in this chapter and emergent literacy will be addressed in the next chapter. Schieffelin and Ochs (1986) discuss, in a book dedicated to studies concerned with pragmatic development, how children learn about their culture through engagement in different interactional routines. A very important aspect of this learning is what an infant finds out about the uses of language in their community. Are they to be quiet and listen in certain situations or to assert themselves by speaking up? Are they very important members of the community, or are they “lowly” members? How will they be allowed to express needs and feelings? In middle-class child-centered communities, there is a great deal of attention paid to
the infant’s behavior, and, usually, there is a prompt response to that behavior. This is less the case in some families where there is less attention paid to babies (or at least their language), and responses to their behaviors are not so prompt. Developmental psychologists found, in an early study, that prompt response to crying during the early months of life has an effect on how early crying shifts to other vocalization behaviors (babbling) in the first year of life (Bell and Ainsworth, 1972). Responding promptly to crying does not reinforce crying itself but, rather, vocalization behavior that may precede the all-out screaming that can occur if the infant is not attended to.

The sequence of development of actual forms used to communicate intent are affected by the frequency with which various types of interaction routines are engaged in, and in what language or dialect, by members of the infant’s community. Pragmatic knowledge, or how to speak to whom, under which circumstances, develops through communication interaction between the child, caregivers, and others.

Pragmatic development of bilingual learners includes being aware that there are two languages. Fantini (1985) reports that his child could distinguish Spanish and English as two languages (1: 10). He would respond to people speaking Spanish and be indifferent to those speaking English — a language he seldom heard. Infants also learn which language to use with whom and where. They have an unconscious awareness of language differences. Even toddlers learn in what place or context it is allowable to alternate their languages (this is known as code-switching). For example, Fantini’s child would frequently code-switch at home but never in pre-school (Fantini, 1978). Often bilingual infants are inflexible about the rules of language choice that they develop based on their experience. A toddler became upset at her uncle, who usually spoke English, because he inserted a short phrase in Spanish (Bergman, 1976). Changes in these rules can leave an infant speechless. For example, a hearing child of deaf parents would not talk to the teacher on the first day of pre-school because he was used to having adults sign when communicating with him.

The various intentions of communication have been described as a variety of speech acts (Grice, 1975). The form of what we say conveys more than just the meaning of the words and the structures in which they are put. For example, a request such as “Can you pass the salt?” is in the form of a question, but really asks for someone to pass the salt rather than simply give an answer. The expectation is that someone will pass the salt. Statements such as “That’s my book” may be a form of telling or of indicating that the book is mine so don’t touch it. Demands
such as “Give me my book!” may be a form asking for action or may imply that someone is doing something they shouldn’t do with the book. Questions such as “Is that my book?” may be a way of asking for information or may indicate that the book doesn’t belong to anyone else. Speech acts by their form, the context in which they are produced, and the paralinguistic cues (intonation, stress, facial expression, and gesture) attached to the utterance, are the acts that we carry out when speaking.

During infancy some of the basic speech acts of indicating, requesting, questioning and commanding are used. Initially, they are conveyed by use of babble and different patterns of intonation, stress, facial expression, and gesture (the paralinguistic cues listed above). In American English rising intonation on the end of a sentence can convey a question or request. Sharply rising then falling intonation can convey a demand. There are differences among languages in the use of these cues. These intonation contours are used on babble, then words, and then on two-word utterances. The child then learns the particular structures used in the language to convey intent: that is, how to question, command, and state using the appropriate word combinations, as well as appropriate intonation contours.

Particular patterns of paralinguistic cues that are used in a child’s culture are carried over to multi-word utterances, and continue even as those utterances become more complex. This is done so that important differences among meanings can be conveyed. Different gestures may be used while indicating the same intent when speaking one language or another. An anecdote in the literature indicates that the gesture used with “bye” was different from the gesture used with “adios” by an English-Spanish speaking child.

It has been noted in a number of studies of child-centered societies that turn-taking behavior between infant and caregiver begins very early (as early as 3 months). The caregiver speaks to the infant and waits for a response. The infant looks at the caregiver and vocalizes, and then the “conversation” continues in this manner. The caregiver cues the behavior by looking directly at the infant and producing words at a frequency that is higher than that used when addressing other adults, and also by stressing words. This seems to be a universal behavior in our and other societies when talking to infants. A typical utterance might be “Hi baby” (or baby’s name) produced with stress on the word baby or the baby’s name, and ending with a sharp change in intonation, either rising or falling. Although these types of interactions take place in all societies there may be differences in the timing of responses between infants and adults in one society compared to another.