

Talk to Me, Baby!

Supporting Language Development in the First 3 Years

Abstract

In their first few years, almost all children learn at least one language, though not equally well. Differences in the quantity, quality, sources, and variety of language inputs and conversation opportunities have a long lasting effect. This article provides an overview early language development and explains how talking with babies promotes rich language acquisition. The authors offer strategies for supporting language at each stage of development and for recognizing and responding to signs of potential disruption or delay.

Babies come into the world primed to communicate with adults, who are primed to communicate with them. Their survival and well-being depend on their ability to connect with their caregivers. From babyhood into childhood and beyond, language plays an increasingly important role. Language is central to thinking, social exchange, and sense of self. We use words to reason and plan, exchange information and opinions, and make our wishes known. Language lets us express feelings, wheedle and negotiate, and remind ourselves how to behave. We use words to learn- to ask questions, hypothesize, organize information, and draw conclusions. We also play with words. We tell jokes, sing, make rhymes and other pleasing patterns, retell true stories, and spin imaginary tales. In just 3 or 4 short years, most of us learn enough language to use words with specificity and zest in all of these ways. Many of us do it in more than one language.

Language is also central to culture. Not only the words we use, but how and when we learn and use them, our nonverbal communication patterns, and the responses we expect, all reflect- and carry- culture. As our society becomes more diverse, early childhood professionals are becoming increasingly aware of the need for strategies that support the language and communication skills of children from many cultures and languages. It is important for early care and education providers to be sensitive to the gaps that might exist between staff members' beliefs, practices, and goals for children and those of the families participating in the program. (The effect of culture on language development is further explored by Jones & Lorenzo-Hurbert, this issue, p.11.)

The Miracle of Language

Almost all children learn to talk, suggesting that language acquisition is a relatively resilient process, although they do not all learn to talk well, suggesting that language acquisition includes some more fragile elements.

- National Research Council and Institute of Medicine (2000, p.126)

Around the World, babies in widely varying cultures and circumstances tune into human voices and non-verbal communications; build relationships through responsive interactions; coo and babble; attach meaning to words; use single words to label, inquire, demand, and insist; put words together in novel combinations; and master the key elements of grammar in a similar pattern and on a similar timetable. Parents and caregivers engage babies in relationship-building communications and speak to them in ways that build language.

Only the most extreme circumstances of environmental, relationship, or language deprivation or of biological impairment prevent children from learning the basics of their first language (or languages)- the core vocabulary of everyday needs and the rules for forming words, sentences, and questions. But differences in the quantity, quality, sources, and variety of language inputs and in expectations and opportunities for conversational participation translate into ongoing differences in the richness of children's vocabularies, their command of specialized linguistic forms, the skill with which they "use their works," and how easily and well they will learn to read.

Language acquisition begins in the last trimester of pregnancy, when the unborn child hears his mother's voice and becomes familiar with the sound patterns of her language. Newborns key into familiar voices and cadences. Young infants communicate with their parents and other caregivers through cries, body movements, eye contact, and facial expressions, in an increasingly attuned "dance" of mutually responsive interaction, breaks, and reengagement.

Starting at about 4 months, babies babble the sounds of languages they hear and of languages they have never heard; babies who cannot hear or make sounds "babble" with their hands. By about 9 months, the babbles of monolingual babies are largely restricted to the sounds of their native language. For babies hearing two or more languages, the sound window stays open longer. They distinguish sounds whose differences are no longer salient to monolingual speakers and maintain a larger repertoire of babbled sounds as they begin to use meaningful words and phrases. During this period, children move from responding to tone of voice and cadence to understanding key words and using gestures and sounds with communicative intent.

Most Children speak (or sign) their first word sometime between 8 and 18 months and amass vocabularies of at least 50 words and stock phrases by their second birthdays. During this time, they show increasing understanding of language- following simple directions and participating in conversations with gestures, actions, single words, or babble-talk "sentences."

The real miracle occurs when toddlers put words together. With "telegraphic" sentences of two or three words (Milk all gone?), they express observations, questions, feelings, and demands, carry on conversations, and relate simple stories. By 3^{1/2} years, almost all children speak in simple sentences with patterns that approximate the grammar of their language(s) or dialect(s), although most will still make some predictable grammatical errors.

From a neuroscientist's perspective, language acquisition involves the development and interconnection of specialized circuits or systems: for processing sounds, interpreting visual input, building concepts, coordinating oral movements, attaching meaning of words, and forming words and sentence grammatically. Circuits are built through interaction with people and with the environment; age appropriate experiences are essential for optimizing their architecture (National Scientific Council on the Developing child, 2008). As the brain matures and develops, complex circuits build on simpler ones. The critical circuits for receptive language and speech production are built in the first 3 years, with the peak of synapse density occurring at about 9 months. Less used synapses are pruned as processing becomes increasingly automatic.

Children can learn languages later- even as adults- building on what they already know about the world and about language. Still, mastery of subtle but meaningful sound distinctions, accent less speech, and nuances of grammar and usage may be incomplete, especially after puberty. Whereas for native speakers, language processing activates circuits in the left hemisphere, for sequential bilinguals processing their second language will likely involve right hemisphere areas as well (Kim, Belkin, Lee & Hirsch, 1997). Researchers are just beginning to understand the full benefits of being bi-or multilingual for cultural identity, cognitive abilities, and long-term advantages in both personal and career endeavors. (see Genesee, this issue, p.17, regarding dual language acquisition.)

The Power of Play Talk

In a Landmark study of language development conducted in the 1980s, Betty Hart and Todd Risley (1995, 1999) observed 42 children born in the Kansas City area, Beginning when the children were 3 years old, researchers made monthly home visits and recorded everything said to or by the child during the observation hour. Despite the study's small and culturally restricted sample, it highlighted "meaningful differences" in early linguistic and relationship- building experiences:

- Family Patterns of engagement and talkativeness were consistent over time: Parents who engaged in more talking with infants talked more with toddlers; those who spoke less or used fewer encouraging words continued these patterns.
- Differences among families were huge and compounded over time. The researchers extrapolated that 3-year- olds in the most verbal families would have heard 33 million words, while those in the least talkative families would have heard only to million.
- Families were alike in the amount of directive language or " business talk" (e.g., initiations, commands, prohibitions) that they used to manage their children; the striking differences were in the amount of additional talk- conversation, running commentary, storytelling, wordplay, chitchat, explanation, and thinking aloud.
- In all families, "the extra talk" was far richer than the business talk. It included longer and more complex sentences and narratives, a greater variety of words (including more rare words), and more descriptive language. It was also richer in information and ideas, and in emotional supports such as affirmation, subtle guidance, responsiveness, and acknowledgement of feelings.

The study showed that toddlers' patterns of talk came to match those of their parents. In more talkative families, toddlers did more talking, and their talk was likely to be richer in vocabulary, description, information, and ideas.

Most striking of all were the differences in child outcomes and their strong connection to early language experience. By age 3, the children who had heard 33 million words with 500,000 affirmations had Stanford-Beniet IQ scores approximately 25 points higher than those of the children who had heard only 10 million words and fewer than 60,000 affirmations. These differences persisted. Children's scores on standard vocabulary, language, and academic tests at age 9 years correlated strongly with their vocabulary use at 3 years and even more strongly with the language input they had received from their parents in those early years.

The association of differences in child vocabulary growth with social class in Hart and Risley's (1995) restricted sample has been widely publicized. However, the more powerful association in the study was between the amount of "non-business conversation and commentary" children heard as infants and toddlers and their later vocabulary development. In Risley and Hart's (2006) words, " Parental talkativeness to babies accounted for all the correlation that existed between socio-economic status (SES)- and/or race-and the verbal intellectual accomplishments of these American children (p.86)."