The milestones of child language development—the onset of babbling, first words, first sentences—are quite variable across individuals in a culture, despite the universal similarity in the general ages of their development. In one study of 32 normally developing children at 13 months, the average number of words reported by parents was 12, but the range was 0 to 45. The two-word-sentence stage was reached anywhere from 16 to 28 months in the same sample. In addition, differing styles of language development are now recognized.

Some children fit the classic pattern of first speaking one word “sentences,” such as “truck,” then joining two words “truck fall,” and then three, “my truck fall.” But other children speak in long unintelligible babbles that mimic adult speech cadence and rhythm, so the listeners think they are just missing some important pronunciation. The first is called a referential style, because it also correlates with attention to names for objects and event descriptions. The second, with less clearly demarked sentence parts, is called expressive style. Such a child is quite imitative, has a good rote memory, and often is engaged in language for social purposes—songs, routines, greetings, and so forth. The expressive child seems to be slightly slower at cracking the linguistic code than the referential child, but the long term differences between the two styles seem insignificant. Given this range of individual pace and style, how can one tell if a child is really delayed in language development, and what are some of the causes?

**Monolingual vs. bilingual**

A child growing up with two or more languages is often slower to talk than a monolingual child. This is not surprising given the amount of analysis and code-cracking necessary to organize two systems simultaneously, but the lifelong advantage of knowing two native languages is usually considered an appropriate balance to the cost of a potential delay. Bilingualism in children and adults is the norm throughout the world: monolinguals are the exception. The learning of each language proceeds in the bilingual child in much the same way as it does in the monolingual child. Some mixing may be observed, in which the child uses words from or inferences from the two languages in one utterance. Some report that the bilingual child initially resists learning words for the same thing in the two languages: for instance, a child who learned Spanish and English together learned leche but then would not say milk, a French/English bilingual used bird but refused to use oiseau.

**Language delay and hearing loss**

Children with a hearing loss, either from birth or acquired during the first year or two of life, generally have a serious delay in spoken language development, despite very early diagnosis and fitting with appropriate hearing aids. However, in the unusual case that sign language is the medium of communication in the family rather than speech, such a child shows no delay in learning to use that language. Hearing development is always one of the first things checked if a pediatrician or parent suspects a language delay. The deaf child exposed only to speech will usually begin to babble in “canonical syllables” (baba, gaga) at a slightly later point than the hearing child, and recent work suggests that the babbling is neither as varied nor as sustained as in hearing children. However, there is often a long delay until the first words, sometimes not until age two years or older.

Depending on the severity of the hearing loss, the stages of early language development are also quite delayed. It is not unusual for the profoundly deaf child (greater than 90 decibel loss in both ears) at age four or five years to only have two-word spoken sentences. It is only on entering specialized training programs for oral language development that the profoundly deaf child begins to acquire more spoken language, so that the usual preschool language gains are often made in the grade school years for such children. Many deaf children learning English have pronounced difficulties in articulation and speech quality, especially if they are profoundly deaf, though there is great individual variation. A child who has hearing for the first few years of life has an enormous advantage in speech quality and oral language learning than a child who is deaf from birth or within the first year.

Apart from speech difficulties, deaf children learning English often show considerable difficulty with the inflectional morphology and syntax of the language that marks their writing as well as their speech. The ramifications of this delayed language are significant also for learning to read, and to read proficiently. The average reading age of deaf high school students is often only at the fourth grade level.

For these reasons, many educators of the deaf now urge early compensatory programs in signed languages, because the deaf child shows no handicap in learning a visually based language. Deaf children born to signing parents begin to “babble” in sign at the same point in infancy that hearing infants babble speech, and proceed from there to learn a fully expressive language. However, only 10% of deaf children are born to deaf parents, so hearing parents must show a commitment and willingness to learn sign language, too. Furthermore, command of at least written English is still a necessity for such children to be able to function in the larger community.
Language delay and mental retardation

Mental retardation can also affect the age at which children learn to talk. A mentally retarded child is defined as one who falls in the lower end of the range of intelligence, usually with an IQ (intelligence quotient) lower than 80 on some standardized test. There are many causes of mental retardation, including identified genetic syndromes such as Down syndrome, Williams syndrome, or fragile X syndrome. There are also cases of retardation caused by insults to the fetus during pregnancy due to alcohol, drug abuse, or toxicity, and disorders of the developing nervous system such as hydrocephalus. Finally, there are environmental causes following birth such as lead poisoning, anoxia, or meningitis. Any of these is likely to slow down the child’s rate of development in general, and thus to have effects on language development. However, most children with very low IQs nevertheless develop some language, suggesting it is a relatively “buffered” system that can survive a good deal of insult to the developing brain.

For example, in cases of hydrocephalus it has been noted that children who are otherwise quite impaired intellectually can have impressive conversational language skills. Sometimes called the “chatterbox syndrome,” this linguistic sophistication belies their poor ability to deal with the world. In an extreme case, a young man with a tested IQ in the retarded range has an apparent gift for acquiring foreign languages, and can learn a new one with very little exposure. For example, he can do fair translations at a rapid pace from written languages as diverse as Danish, Dutch, Hindi, Polish, French, Spanish, and Greek. He is in fact a savant in the area of language, and delights in comparing linguistic systems, though he cannot live independently.

Adults should not consider retarded children to be a uniform class; different patterns can arise with different syndromes. For example in hydrocephalic children and in Williams syndrome, language skills may be preserved to a degree that is discrepant from their general intellectual level. In other groups, including Down syndrome, there may be more delay in language than in other mental abilities.

Most retarded children babble during the first year and develop their first words within a normal time span, but are then slow to develop sentences or a varied vocabulary. Vocabulary size is one of the primary components of standardized tests of verbal intelligence, and it grows slowly in retarded children. Nevertheless, the process of vocabulary development seems quite similar: retarded children also learn words from context and by incidental learning, not just by direct instruction.

Grammatical development, though slow, does not seem particularly deviant, in that the morphology comes in the same way, and in the same order, as it does for normal IQ children. The child’s conversation may be marked by more repetition and routines than creative uses, however. By the early teens, the difference in the variety of forms used in a sample of conversation may be more striking in some groups. There may be important differences among types of retarded children in their grammatical proficiency. As of the 1990s, these differences are just beginning to be uncovered. The Down syndrome adolescent with an IQ of around 50 points does not seem to progress beyond the grammatical level of the normally intelligent child at three years, with short sentences that are quite restricted in variety and complexity. Children with Down syndrome are also particularly delayed in speech development. This is due in part to the facial abnormalities that characterize this syndrome, including a relatively large tongue, and also is linked to the higher risk they appear to suffer from ear infections and hearing loss. Speech therapy can be a considerable aid in making such a child’s speech more intelligible. Despite the delay, children with Down syndrome are often quite sociable and interested in language for conversation.

Language delay and blindness

Children who are blind from birth sometimes have other neurological problems, which makes it difficult to assess the effect of blindness itself on cognitive and linguistic development. However, in the cases where blindness seems to be the only condition affecting the child, some initial language delays are noted. On average, blind children seem to be delayed about eight months in the onset of words. In general, though, detailed longitudinal studies have revealed that the blind child learns language in much the same way as the sighted child, with perhaps more reliance on routines and formulas in conversation. Linguists are interested in the process by which blind children learn to use words such as see and look given their lack of experience with sight, but these words were found to come in quite normally, with the appropriately changed meaning of “touch” and “explore tactilely.”

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Further Reading