

Early Dual Language Learning

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Language is a uniquely human ability, and children are uniquely capable of learning language. Indeed, it seems to be impossible to stop children from learning language. All children acquire at least one language despite radically different cultural environments and child care conditions. Many children, and possibly most children, around the world learn more than one language during the pre-school years. Some children learn two, or more, languages from birth. This often happens when parents speak different languages and use their languages to raise their children. It can also happen if members of the extended

family or the immediate neighbors whom the child interacts with speak additional languages. For example, many minority language infants and toddlers live in neighborhoods where English is the dominant language, and these children come into contact with English as their world expands beyond the home. Other children begin to learn a second language in infant-toddler or day care centers. This can happen when the home language is a minority language and a majority language is used in the center, which is the case for most minority language children who attend infant-toddler programs in the United States. It can also happen when parents who speak the majority language (English in the U.S.) decide to arrange child care in another language (e.g., Spanish) because they want their child to become bilingual.

Frequently Asked Questions

PARENTS, EDUCATORS, AND other child care professionals often express misgivings and downright skepticism about raising infants and toddlers bilingually because they believe that learning one language is normal, but learning two is a burden and puts children at risk for delayed, incomplete, and possibly even impaired language development, not to mention cultural and social anomie. In this article, I review research findings on some of these and other issues, and offer suggestions about dual language learning during the infancy and toddler period. Although there is a growing research base on dual language learning in infants and toddlers, this base is somewhat limited at present, and, therefore, professionals and parents cannot rely on research findings to answer all of their questions. Consequently, a

combination of research evidence and sound professional judgment is called for when making decisions.

Is It a Good Idea to Raise Young Children Bilingually?

There are many advantages to being bi- or multilingual. First and foremost are personal and family reasons. If members of the immediate or extended family speak different languages, then it is a benefit for infants and toddlers to learn those languages so that they can be fully functioning members of the family. This is especially true if some family members speak only one language and might be cut off from communication with a child if he or she does not learn their language. This is often the case for children whose primary language is a minority language, such as Spanish or Chinese, in the United States. It is critical for minority language children to learn the home language so that their parents can communicate easily with them and take full responsibility for socializing them and preparing them for schooling later on (Wong-Fillmore, 1991). Also, because language is an integral part of cultural identity, minority language children risk becoming alienated if they do not learn the home language.

The advantages of being bi- or multilingual go beyond the family. Research has shown that children who are fluent in two languages enjoy certain cognitive advantages in comparison to those who speak only one language. For example, they are better at problem solving, demonstrate greater creativity, and express more tolerant attitudes toward others (Bialystok & Martin, 2004; Genesee & Gandara, 1999). Even bilingual

individuals who are 60 or 70 years of age demonstrate certain cognitive advantages according to research published by Ellen Bialystok at York University in Toronto, Canada (Bialystok, Craik, Klein, & Viswanathan, 2004). For children to benefit from these cognitive advantages, they must have acquired high levels of competence in both languages and they must use both languages regularly. This means that parents and other child care providers should understand that if they want infants and toddlers to benefit cognitively from knowing two languages, they should be serious and committed to raising children bilingually.

Clearly, there are also advantages that come from knowing other languages when children are old enough to read, write, and use computers. There is a wealth of information available in print and electronic form nowadays. Much of this information is available in English as it is the most widely used language in the world. English is used for communication in science, politics, financial matters, education, and other topics, and is used extensively on the Internet as well as in print and on radio, television, and so on. At the same time, other world languages (e.g., Spanish, Chinese, Arabic, and Russian) are also extensively used. Children who grow up learning two languages have greater access

Abstract

Parents and child care personnel in English-dominant parts of the world often express misgivings about raising children bilingually. Their concerns are based on the belief that dual language learning during the infant-toddler stage confuses children, delays their development, and perhaps even results in reduced language competence. In this article, the author describes some of these concerns, reviews pertinent research, and offers suggestions about dual language learning during the infant-toddler period.



Children need to learn their home language to connect with all family members.

to sources of information in other languages than children who learn only English.

Finally, there are many long-term personal and career advantages from knowing additional languages. There are job opportunities in international business and government that require competence in two or more languages. Large international businesses need well-educated bilingual individuals to work in the global market place, governments need multilingual speakers who can work in embassies and government offices around the world, and many other sectors of the economy (e.g., education, science) have job opportunities for those who are bilingual. Travel opportunities are also much greater for those who speak additional languages.

It is evident that knowing two, or more, languages is distinctly advantageous, and many of these advantages occur when children grow up. All children, whether they speak a minority or a majority language at home, can benefit from these advantages. For children to benefit fully from knowing two languages later in life, it is important that dual language learning start early because infants and toddlers are particularly adept at learning languages.

Is It Normal for Children to Learn Two Languages at the Same Time?

It has been estimated that there may be more children who grow up learning two or more languages than children who learn only one (Tucker, 1998). Thus, because of the higher number of children around the world who grow up learning more than one language, dual language acquisition is probably more “normal” than monolingualism. More impor-

tant, there is no scientific reason to think that young infants’ brains are equipped to learn only one language in early childhood. In fact, there has been much research on infants and toddlers who learn two languages from birth: These children are called *simultaneous bilinguals* or *bilingual first language learners* (Genesee & Nicoladis, 2007). Research shows that simultaneous bilingual children go through the same basic milestones in language acquisition as children who learn only one language. These children do so at the same rate as monolingual children, provided they are given adequate learning environments. For example, bilingual children begin to babble at the same age as monolingual children: They say their first words at the same age as monolingual children, and they start to produce multiword sentences at the same age.

It is surprising that researchers know much less about children who begin to learn a second language after their first language is established, say around 2 years of age (Genesee, 2008). Yet, in general, the earlier children begin learning a second language, the better their chances of becoming fully bilingual (Hyltenstam & Abrahamsson, 2003), provided they are given rich learning environments. I return to the topic of what is an appropriate dual language learning environment later.

There are differences, of course, between bilingual and monolingual children. The learning task for bilingual children is more complex, which sometimes may result in short delays or small differences in language use. For example, studies have found that 15-month-old infants learning two languages may be delayed by 2 or 3 months in their

ability to distinguish new words that sound similar to each other (e.g., *bit* vs. *bet*) in comparison to monolingual children (Werker & Byers-Heinlein, 2008). However, in the long run, this short delay has an insignificant effect on bilingual children’s overall language competence. In fact, researchers suggest that this delay may be helpful for children who hear and must learn words from two languages with different sounds. It is a kind of flexibility that leaves them open to the greater diversity of words in two languages than what monolingual children hear in only one. Young bilingual children may have smaller vocabularies in one or both languages in comparison to monolingual children, although not always (Nicoladis & Paradis, 2008). This is to be expected because bilingual children tend to learn their languages in different contexts and the vocabulary they acquire in each language reflects the context in which that language is learned and used.

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Bilingual children can differ from monolingual children even into adulthood: they may pronounce words in slightly different ways, they may use unusual words from time to time, or they may construct sentences in different ways at times. Simply put, bilingual children have more language skills at their disposal and they use them in ways that may distinguish them from people who know only one language. The small differences that distinguish bilingual from monolingual children are trivial in comparison to the advantages bilingual children have from knowing more than one language.

Will Infants and Toddlers Become Confused if They Are Exposed to Two Languages?

There is absolutely no evidence that children get confused if they learn two languages during the infant–toddler period. Even children who hear parents or child care personnel use two languages in the same sentence (or utterance)—which is referred to as *code-mixing* or *code-switching*—are able to separate the two languages very early in development (Genesee, 2002). As long as most people in the child’s family, community, and child care facility use one language at a time, the child will learn that this is the appropriate way to use the two languages. There is a great deal of research showing that even toddlers in the early verbal stages of

simultaneous bilingual development know how to use their languages separately, even with strangers they have never met before (Genesee, Boivin, & Nicoladis, 1996). If children grow up in families and communities where two languages are often mixed in the same sentence or conversation, then, of course, they will learn these patterns of communication. This makes sense because mixing is the predominant communication pattern in their community. If the norm in the community in general, however, is to keep the languages separate, then children will learn to separate their languages when speaking to others outside their bilingual community. Keeping languages separate is not a problem for infants and toddlers who begin to learn a second language when they attend a child care center or infant-toddler program where two languages are used because exposure to the two languages has been separated in time.

Should personnel in a bilingual child care and infant-toddler program separate the two languages, with certain people using each language all the time? This is a good strategy to ensure that children are exposed to each language adequately. It can be especially useful to identify who will use the minority language and when. This is important because minority languages are likely to be neglected in favor of English (Anderson, 2004). In infant-toddler programs where the goal is to promote dual language acquisition, it is advantageous for both minority and majority language children that they have extensive exposure to the minority language. Exposure to English is guaranteed because it is the majority language everywhere else.

Should Dual Language Learners Be Discouraged From Mixing Languages in the Same Sentence?

Mixing languages in the same sentences or conversations is perfectly normal—all bilingual speakers do it, children and adults alike. This phenomenon has been studied extensively in both children and adults (Genesee, 2002; Myers-Scotton, 1993; Zentella, 1999). Research with children has shown that most bilingual children keep their languages separate most of the time. When they mix, it is often to fill gaps in their vocabulary in one or the other language. Bilingual children may not know the same words in both languages, and, as a result, they might use a word from one language while speaking the other language because they do not know the word in the language they are using. Sometimes bilingual children mix words in their two languages because there are specific concepts or meanings that can be expressed easily in one language but not in the other. If a child wants to express that meaning or con-

cept, she will have to use the word from the language that it belongs to even if it means mixing. In most cases, code-mixing is a useful strategy because adults in the child's life often know both languages. As bilingual children get older, they mix in order to express their bilingual identity. Bilingual adolescents and adults often mix with other bilingual individuals because it reflects who they are. Mixing does not mean that children are confused or impaired; they are simply using all of their language resources to express themselves.

Yet other research on code-mixing by bilingual children has shown that their mixed sentences are grammatically correct most of the time (Paradis, Nicoladis, & Genesee, 2000; Zentella, 1999). For example, if a child inserts a word from Spanish when saying something in English, he will insert the word in a place in the sentence that is grammatically correct according to both languages: For example, “*más bananas*” (more bananas) was produced by a 19-month-old Spanish-English bilingual child, as shown in Deuchar and Quay (2000, p. 107). Spanish and English have the same word order for saying “more bananas.” Or if a child switches from Spanish to English part way through a sentence, he or she will do it at a point in the sentence that it is permitted in both languages: For example, also from Deuchar and Quay (p. 85), “*panda come fruta*” (panda eats fruit) was produced at 22 months. Bilingual children, even infants and toddlers, usually follow the grammatical rules of both languages when they code-mix—just like adult bilinguals.

What About Children Who Speak a Minority Language at Home?

It is widely believed that children who speak a minority language at home should begin to learn and use the majority language, English, as quickly as possible to ensure that they integrate into mainstream culture and are fully prepared for schooling in English. This belief is linked, in part, to the notion of *time on task*, according to which the more time children spend learning something, the better they will be at it. This belief is fundamental to how most educators think about teaching children. The amount of time devoted to teaching specific subjects in school is a reflection of how important each subject is in the belief that important subjects merit more time so that students will develop high levels of mastery in those subjects. Early second language learning is another manifestation of the importance attached to time on task: Exposing minority language children to English early during the preschool years is usually thought to result in faster and better acquisition than if their exposure to English were delayed. Encouraging minority language parents to use English at home as soon as pos-



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Bilingual children enjoy cognitive advantages over monolingual children.

sible is also linked to the notion that younger is better.

An examination of research findings with respect to first and second language learning reveals that the relation between time and language learning is quite complex, as was evident in the previous discussion of milestones in bilingual first language learning. Research shows that despite the fact that simultaneous bilingual learners have approximately half as much exposure to each language as monolingual learners, they exhibit the same basic developmental patterns at approximately the same ages as monolingual children (Genesee & Nicoladis, 2007). Research also shows that minority language preschool children with well-developed skills in the home language that are related to reading and academic language acquire literacy and academic language skills in English more quickly than minority language students whose competence in the home language is not well developed. For example, Spanish-speaking children with well-developed phonological awareness skills, knowledge of letter-sound correspondences, and emergent literacy skills in Spanish acquire initial literacy skills in English when they enter school more easily than Spanish-speaking children who have not yet obtained these skills and this knowledge in the home language (Genesee & Geva, 2006; Riches & Genesee, 2006). In other words, spending time learning the minority language does not necessarily detract from children's acquisition of English in the long run.

There is a growing consensus in the research community that developing minority



Teaching a second language early improves a child's chances of becoming fully bilingual.

language children's first language skills in areas that are related to schooling, and literacy in particular, transfers to and supports the acquisition of English as a second language (August & Shanahan, 2006). In support of these conclusions, researchers have found that minority language students in the primary grades who have some academic instruction in home language in school attain higher levels of academic achievement, including English literacy, than minority language students who are educated entirely in English (Genesee & Riches, 2006; Lindholm-Leary & Borsato, 2006). Moreover, the more enriched and extended instruction in the minority language, the greater the academic and English language benefits minority language students experience in comparison to students in school programs with less, or no, support for the home language. Further evidence of an additive relationship between development of the home language, on the one hand, and English language and academic development, on the other hand, comes from research that shows that minority language students with relatively high levels of bilingual proficiency perform better in school than minority language students with relatively low levels of, or no, bilingual proficiency (Lindholm-Leary & Aclan, 1991). Although this research pertains to school-age dual language learners, it is relevant to this discussion of infants and toddlers because the foundations for literacy and academic success begin in the preschool years. Thus, developing minority language students' competencies in the native language early will support their acquisition of academic and literacy skills in English later.

At the same time, time does matter. Dual language learners will not acquire full competence in both languages if their exposure to each falls below some as-yet-unknown lower limit. The importance of exposure is evident in research carried out by Barbara Pearson and her colleagues on the vocabulary development of Spanish-English bilingual children in Miami, Florida (Pearson, Fernández, Lewedag, & Oller, 1997). Pearson et al. found that there was a significant and positive correlation between amount of exposure to each language and vocabulary size: The greater children's exposure to each language, the larger their vocabulary in each language. Research with monolingual children attests to the influence that input can have on vocabulary development, but in a different way. Children who grow up in socioeconomically advantaged families are exposed to more different words than children raised in less advantaged families, and the former acquire more extensive vocabulary skills than the latter (Hart & Risley, 1995; Hoff, 2006). These results are important because they indicate that it is not simply amount of exposure but also quality of exposure that can influence children's language development. I return to this point in the next section.

Should Children With Language Impairment Try to Learn Two Languages During the Early Years?

Some children have difficulty acquiring the vocabulary, grammar, and conversational skills of language even though they have normal cognitive abilities, no obvious neurological impairments, and no evident socio-emotional or perceptual problems. These

children have a specific language impairment (SLI). It is estimated that about 7% to 10% of the population of monolingual children are affected by SLI (Leonard, 1998), and more boys than girls have SLI. It is thought that there is a genetic component to language impairment as children with SLI are much more likely than unaffected children to have an immediate family member who has also had SLI. Children with SLI often experience difficulty and even failure when they go to school when the linguistic demands of schooling increase. It is commonly thought that children with language impairment should learn only one language because learning two would exceed their language learning capacity and could result in even greater impairments and delays.

There is very little research on dual language learning by children with SLI. However, the research evidence that is available suggests that children with language impairment can become bilingual. The evidence for this comes from research with Spanish-English bilingual children in the United States by Vera Gutierrez-Clellen and her colleagues (Gutierrez-Clellen, Wagner, & Simón-Cerejido, 2008) and with French-English bilingual children by Johanne Paradis and her colleagues in Canada (Paradis, Crago, Genesee, & Rice, 2003). Both groups of researchers found that, although the bilingual children exhibited language impairments in both languages, their impairments were of the same nature and magnitude as those of monolingual children with impairment. In other words, the bilingual children with language impairment were not more severely impaired than the monolingual children with impairment. At the same time, their language impairment did not prevent the bilingual children from acquiring proficiency in two languages.

At present, there is no scientific evidence to suggest that children with language impairment should be limited to only one language on the grounds that this will facilitate their language learning and avoid language difficulties. Giving minority language children with language impairment opportunities to maintain the home language as they also acquire English is especially important because knowing two languages is essential if they are to fully identify with and socialize into the life of their family and community. To restrict minority language children to learning only the majority language would entail social and personal costs that can easily be avoided.

What Do Parents and Child Care Personnel Need to Do to Create an Effective Dual Language Learning Environment?

As indicated previously in this article, learning two languages during the infant-toddler

period is as natural as learning one. Young children have the capacity to acquire full competence in two languages. While this is true, it is also true that the level of competence and the range of competencies that dual language learners acquire in each of their two languages depend critically on the quality of the learning environment. Children need long-term, regular, and enriched exposure to both languages if they are to acquire full competence in both and if they are to enjoy the long-term linguistic and cognitive benefits that come from being bilingual. The responsibility for ensuring that infants and toddlers have an adequate dual language learning environment must be shared by families and other child care personnel. They must work together to create an additive dual language learning environment.

Creating an additive dual language learning environment often means reinforcing use of the minority language. For minority language learners, this means reinforcing the home language at home and in infant-toddler or other child care programs so that development of the home language becomes entrenched. For majority language learners, this means reinforcing the second language. Parents and child care personnel should persist in using the minority language even if individual children prefer to use English as this will ensure that, at least, they will acquire comprehension skills. It is important to support the minority language as much as possible because there is a natural tendency for children to favor the majority language, especially as they get older, in order to be like other majority language, English-speaking peers (see Caldas, 2006, for a detailed and informative description of one family's experience with this). The infant-toddler years are a good time to lay a solid foundation for the minority language before this tendency takes hold because young learners are more likely than older learners to model their language use on that of adults around them. Personnel working in child care or infant-toddler programs may need to encourage minority language parents to use the minority language to ensure that children have adequate exposure to it. This can be done by informing them of the benefits of bilingualism and the important role they play in promoting their child's bilingualism.

Explicit and systematic guidance may be required to ensure appropriate parent collaboration. Many minority parents may not believe that they have an "educational role" to play; rather, their role is to socialize their children, and it is the role of teachers and personnel working in infant-toddler programs to "teach" their children language and other school-related skills (Reese & Gallimore, 2000). All parents, those who speak a minority language



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Dual language competence depends on the quality of the early learning environment.

at home and those who speak English at home, may need explicit guidance on what aspects of language to support and how to do this in the home. While it is widely recognized that language is essential for cultural, social, and personal development during the infant-toddler years, there is growing recognition that language acquisition during the preschool years, beginning in infancy, lays the foundations for cognitive and later literacy development, as noted earlier (August & Shanahan, 2006; Genesee, Lindholm-Leary, Saunders, & Christian, 2006). For example, the Early Head Start Program Performance Standards (U.S. Department of Health & Human Standards, 2008, Section 1304.21[c] [1] [ii]) indicate that an effective program

provides for the development of cognitive skills by encouraging each child to organize his or her experiences, to understand concepts, and to develop age appropriate literacy, numeracy, reasoning, problem solving and decision-making skills which form a foundation for school readiness and later school success.

Families may also need assistance in identifying resources at home that they can use to promote those aspects of language that are linked to cognitive, academic, and literacy development. It may even be necessary to provide resources (e.g., wordless picture books or videos) that parents can use to promote storytelling and other language skills.

As for infant-toddler program personnel, they have a critical role to play in developing a plan that outlines how dual language

competence can be achieved with the support of families. Among other details, such a plan would identify the following: (a) *When*

Learn More

A Parent's and Teachers' Guide to Bilingualism
By C. Baker (2000)
Clevedon, England: Multilingual Matters

Dual Language Development and Disorders
By F. Genesee, J. Paradis, & M. Crago (2004)
Baltimore: Brookes

Promoting a Language Proficient Society: What You Can Do
By K. Marcos & J. K. Peyton (2000)
www.cal.org/resources/digest/0001promoting.html

Multilingual Living Magazine
www.biculturalfamily.org

The Multilingual Living Magazine is a resource of the Bilingual/Bicultural Family Network, a group of families from around the world who are raising bilingual and bicultural children.

Bilingual Family Newsletter
www.bilingualfamilynewsletter.com

The Bilingual Family Newsletter is written for families who are raising bi- or multilingual children. The newsletter provides short articles, book reviews, and essays from parents.

each language would be used (e.g., would use of each language be assigned by time of day or by activity?); (b) *Who* would use each language (e.g., would certain people use a specific language or would personnel use both?); (c) *What* functions would each language serve (e.g., social, cultural, cognitive, preliteracy pre-numeracy purposes); and (d) *How* would those functions be instantiated in developmentally appropriate activities? Planning should take a long-term perspective, outlining how the program would evolve as the children develop. A critical component of effective programs is a plan for evaluation to ensure that goals are met.

In conclusion, there are evident lifelong advantages to knowing other languages along with English, and these advantages

can be enjoyed by children whether they speak a minority language or English at home. Research indicates that dual language development during the infant-toddler years is as natural as monolingual development and that, given adequate learning environments, all children can acquire and come to enjoy the benefits of knowing more than one language. The birth to 3 years are a particularly good time for beginning dual language learning because infants and toddlers are particularly competent language learners. For minority language infants and toddlers, being bilingual in the home language and English allows them to participate in mainstream culture without losing important connections and a critical sense of identity with the home language culture. The challenge

is for child care providers—family members and infant-toddler program personnel together—to create additive language learning environments that permit children to realize their dual language learning capacity. ♪

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Connecting Science, Policy, and Practice: Improving Outcomes for Infants and Toddlers

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