

## Clinical Forum

# Intervention With Linguistically Diverse Preschool Children: A Focus on Developing Home Language(s)

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**C**onducting valid assessments and providing effective intervention services to preschool-age children who are monolingual speakers of the majority community language is a challenging endeavor, requiring a substantial knowledge base coupled with a wide array of specific clinical skills. At a minimum, speech-language pathologists (SLPs) and early childhood educators in the United States who provide services to children from English-only-speaking families must have a clear understanding of the complex interactions between communication and cognitive, social, and emotional development in typical and atypical learners. These professionals must be skilled not only in working with young children, but also

in training and supporting the efforts of their families. Most experienced professionals would likely agree that there are additional challenges to effective service delivery with children whose families speak languages other than, or in addition to, the majority language of the community (Kohnert, Kennedy, Glaze, Kan, & Carney, 2003).

One reason for the greater challenges inherent in serving young linguistically diverse children is that the literature documenting typical growth in both the home and community languages is sparse. This is particularly the case for preschool-age children who begin learning two languages at different ages and in different contexts, such as the child who lives with his Korean-speaking parents in the United

**ABSTRACT: Purpose:** This article addresses a series of questions that are critical to planning and implementing effective intervention programs for young linguistically diverse learners with primary language impairment (LI). Linguistically diverse learners in the United States include children whose families speak languages such as Spanish, Korean, Cantonese, Hmong, Vietnamese, or any language other than, or in addition to, English.

**Method:** A narrative review of the relevant literature addresses clinical questions including (a) Why support the home language when it is not the language used in school or the majority community? (b) Does continued support for the home language undermine attainment in a second language? (c) Should we support the home language when it includes the code switching or mixing of two

traditionally separate languages? and (d) What are some strategies that can be used to support the home language when it is a language that the speech-language pathologist (SLP) does not speak?

**Conclusion:** SLPs should provide services to linguistically diverse preschool-age children with LI in a manner that effectively supports the development of the home language. Parent and paraprofessional training along with peer-mediated models of intervention are presented as two possible methods for facilitating the home language in children with LI.

**KEY WORDS:** bilingual, second-language learners, treatment, language disorders

States, then begins attending an English-only preschool program at 3 years of age. Without a clear understanding of the growth patterns and rates of language in young, typically developing (TD) children learning two languages, implementing intervention programs to serve linguistically diverse children with suspected delays in communication is a daunting task. A second and related reason for the greater challenges in providing appropriate services to young linguistically diverse learners is that there are few resources available that directly guide clinical decision making with this population, specifically as it relates to planning and implementing intervention programs. This article directly addresses this need. The general goal of the article is to provide SLPs with information that will assist them in making decisions relevant to intervention with young linguistically diverse learners. The perspective presented here is that systematic support for the home language(s) of young children with language impairment (LI) is critical to the long-term success of language intervention. We first motivate this perspective and then discuss parent training and peer-mediated intervention strategies that may be useful in facilitating gains in the home language(s) of linguistic-minority preschool-age children.

The children of interest here are between 2 and 5 years of age and live in homes in which the primary language differs from the language of the larger community and educational settings. Linguistically diverse learners in the United States include children from monolingual families who speak Spanish, Korean, Cantonese, Urdu, Somali, Hmong, Vietnamese, or any language other than English in the home. Linguistically diverse learners, as defined here, also include simultaneous bilingual children in the United States whose families alternate between two languages (such as Spanish and English). Although much of the following discussion is relevant for children with communication delays of varying types, we focus on clinical decision making for those 2- to 5-year-olds with a primary or "specific" LI.

LI is defined here as a delay in expressive and/or receptive language, despite sensory, motor, social, cognitive, and neurological development within the expected range (Leonard, 1998). Delays in language are determined based on comparisons to age peers with similar language and cultural experiences. The most salient symptoms of LI change as a function of the developing child, shifting environmental demands, and specific characteristics of the language(s) to be learned. For example, 2- and 3-year-olds who are at risk for LI may have low vocabulary skills and be classified as "late talkers." Between the ages of 3 and 5, English-speaking children with LI typically show marked deficits in the attainment of morphological inflections, relative to their unaffected peers. Deficits in the area of inflectional morphology are less evident in preschool children with LI whose first language is highly inflected, such as Italian or Hebrew (Dromi, Leonard, & Shteiman, 1993; Leonard, Bortolini, Caselli, McGregor, & Sabbadini, 1992). As children move into the school years, LI may manifest as reduced skills in literacy and discourse (see reviews in Leonard, 1998; Thal & Katich, 1996; and Windsor & Kohnert, 2004). LI, first- and second-language

acquisition, and simultaneous bilingualism are considered here within a broad cognitive–functionalist theoretical framework. From this perspective, the critical language "universals" are social, cognitive, and physiological in nature. For example, social universals include the functions that are needed, in all languages and cultures, for communication—such as the need to refer to items, people, or events or to predicate things about those entities (Tomaseello, 2003). All TD children have the same set of cognitive and sensory processing tools for achieving these communicative goals. In contrast, children with LI are hypothesized to have some subtle inefficiency in the general cognitive processing mechanisms that challenge the efficient acquisition and use of the specific language codes present in their environments (Kohnert & Windsor, 2004).

Our perspective on structuring language intervention for preschool children with LI is consistent with general cognitive–functionalist theoretical approaches. In our recommendation for intervention with linguistically diverse preschool children, we emphasize the cumulative and continuous importance of language input and interactions within meaningful social contexts (Buteau & Kohnert, 2000; Tannock & Girolametto, 1992). The quality, as well as quantity, of positive, reciprocal language-based interactions is important because the child's success in processing this input leads to the acquisition of forms that are unique to each linguistic code (cf. Cummins, 1979). We also consider the common social and cognitive underpinnings of communication to be important in structuring intervention that will support the learning and use of more than one language by young children (Kohnert & Derr, 2004).

The following sections address a series of clinical questions that are critical to planning and implementing effective intervention with linguistically diverse preschool children with LI.

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## WHY SUPPORT THE HOME LANGUAGE WHEN IT IS NOT THE LANGUAGE USED BY THE EDUCATIONAL SYSTEM OR BY THE MAJORITY COMMUNITY?

The most obvious clinical decision to be made in planning intervention with young linguistically diverse learners is which language(s) should be supported through intervention? This is not a clinical decision that applies to children from monolingual families that share the dominant language of the community, yet it is the most basic clinical decision to be made with linguistically diverse learners. For more than a decade, experts in early childhood education have recognized the importance of accepting and valuing the home culture and language of TD children attending preschool educational programs in the majority language (Barrera 1993; NAEYC, 1995; Tabors, 1997; van Tuijl, Leseman, & Rispen, 2001). Bilingual specialists have also advocated intervention in the home language for linguistically diverse children with speech or language impairments (e.g., Beaumont, 1992; Genesee, Paradis, & Crago, 2004; Gutierrez-Clellen, 1999; Kohnert & Derr, 2004; Kohnert &

Stoeckel, 2003; McCardle, Kim, Grube, & Randall, 1995; Perozzi & Sanchez, 1992; Thordardottir, Ellis Weismer, & Smith, 1997). Consistent with these views, our perspective is that it is incumbent for SLPs and early childhood educators to go beyond simply encouraging continued use of the home language by families of young children with LI. A fundamental objective of intervention programs with preschool-age children with LI should be to facilitate skills in their home language. This position to systematically promote the home language in young learners is motivated by factors related to social, emotional, and cognitive development within the cultural context of the family.

The development of social, emotional, cognitive, and communication skills is interdependent in young children. These interdependent skills develop within a cultural context, and the primary cultural environment for young children is the immediate and extended family (e.g., Moore & Perez-Mendez, 2003; NAEYC, 1995; Robinson-Zaňartu, 1996; van Kleeck, 1994). Language is the major vehicle for communicating the family's values and expectations, expressing care and concern, providing structure and discipline, and interpreting world experiences. Therefore, it seems absolutely necessary that children with LI and their primary care providers share a common language—a language that is developed to the greatest degree possible so that it can be used to express all of the complexities inherent in parent–child relationships across the lifespan.

For TD learners, failure to develop and maintain the language used in the home and by extended family members may result in, among other things, loss of cultural identity and reduced contact with family members, including primary care providers (e.g., Anderson, 2004; McCardle et al., 1995; Wong-Fillmore, 1991). Furthermore, young children who have not had sufficient opportunities to develop cognitive skills in their first language before learning a second language are at greater risk for academic delays than their peers who have had opportunities to develop and use their first language (Cummins, 1984). Social scientists in the United States have found that TD second-generation children of immigrant parents have significant social–emotional and educational advantages when they have learned the language spoken by their parents in addition to English (Feliciano, 2001; Hurtado & Vega, 2004; Portes & Hao, 2002). For example, Portes and Hao found that bilinguals reported higher self-esteem, better relations with their family members, and greater academic aspirations as compared to their cultural peers who were fluent, albeit monolingual, speakers of English. It is likely that these same social–emotional advantages linked to the establishment of the home language would also be true for children with LI.

The learning or retention of a first language depends on several interrelated factors, including opportunities to learn and use the language, the child's motivation for speaking the language, and the relative degree of prestige associated with this language in both the immediate cultural community and the majority community (Genesee et al., 2004; McLaughlin, 1984). Unfortunately, proficiency in the home language, together with its social, emotional, and cultural links, is at risk for many young language-minority children.

This is particularly true when the language spoken in the home is not widely used in the educational or broader community settings. Older children and adults who have achieved a fairly sophisticated and “asymptote” level of skill in a first language are generally not at risk for a regression or loss of native language skills as a result of intense experience with a second language. This is not true, however, for young children under the age of 5 who are still in the most dynamic stages of language acquisition. That is, for young TD second-language learners, skills in the first language are vulnerable either to backsliding or to incomplete acquisition in the absence of systematic support (e.g., Kan & Kohnert, 2005; Leseman, 2000; Montrul, 2002; Schaeerlaekens, Zink, & Verheyden, 1995; Wong-Fillmore, 1991).

Only a few studies have directly measured skills in both the first language and second language of linguistically diverse children between 2 and 5 years old. Leseman (2000) investigated vocabulary development in Turkish and Dutch of second- and third-generation immigrant children from low-income families in the Netherlands. The primary home language was Turkish, and children attended a Dutch preschool program beginning at age 3;0 (years;months). Both receptive and expressive vocabulary measures revealed significant and positive growth in Dutch. In contrast, performance in Turkish, the home language, did not change and, over time, lagged behind that of monolingual Turkish peers who did not attend preschool. Schaeerlaekens and colleagues (1995) investigated vocabulary skills in 3- to 5-year-olds who spoke French as their first language and attended a Dutch preschool in Belgium. In this case, both languages had high social status and families represented the range of income levels. Nonetheless, results were similar in that skills in the home language declined alongside robust growth in Dutch, the language used exclusively in the early childhood instructional program.

In the United States, Kan and Kohnert (2005) found evidence of a plateau or stabilization of lexical development in the home language of Hmong children attending a bilingual (Hmong–English) preschool program. In contrast to the lack of growth in Hmong vocabulary across age, there were significant gains in English vocabulary. Although the 3- to 5-year-olds in this study attended a bilingual preschool program, Kan and Kohnert observed significant differences in the ways in which Hmong and English were used in the classroom setting. Specifically, English was the primary language during instruction and enrichment activities; Hmong was used for managing the general flow of the classroom, including transitioning children between activities. In other studies in which both minority and majority languages were systematically supported in the instructional setting, TD children demonstrated marked gains in both home (Spanish) and community (English) languages (Rodríguez, Díaz, Duran, & Espinosa, 1995; Winsler, Díaz, Espinosa, & Rodríguez, 1999). Winsler and colleagues found that gains in Spanish as well as English were greater for those children who attended the bilingual preschool program as compared to age/cultural peers who did not attend the bilingual early educational program.

Results from these combined studies with young TD learners indicate that the ability to maintain and develop skills in a minority home language corresponds to the level of systematic support and enrichment provided in this language. When enrichment activities designed to support the home language are not available, TD language-minority children are much less likely to develop or maintain the language spoken by their parents and other close family members, thereby placing additional burdens on the social, emotional, and academic development of these children.

Young children with LI may be even more vulnerable to home language regression, or to incomplete acquisition, than their TD peers. By definition, children with LI are slower to learn language and, therefore, have lower levels of language skill than their age peers with similar cultural and linguistic experiences. For language-minority children with LI, this slower pace of language learning, combined with a lower starting point when the majority language is introduced, means that children with LI will require more, not less, input in the home language than their TD peers to develop the first language (Restrepo, 2003; Restrepo & Kruth, 2000). For this reason, it is crucial that SLPs and early childhood educators go beyond simply encouraging continued use of the home language by families of young children with LI to actively promote its development. Facilitating, rather than just maintaining, skills in the home language should be a fundamental objective of intervention programs with preschool-age children with LI. The next section considers whether this support for a minority home language jeopardizes the potential for learning the majority language of the educational system and broader community.

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## DOES SUPPORTING THE HOME LANGUAGE MEAN SACRIFICING THE MAJORITY LANGUAGE?

Given the previous discussion, it seems of fundamental importance to support home language development in young linguistically diverse children with LI. The development of social, emotional, cognitive, and communication skills is interdependent in young children: They are learned within the cultural context of the family, with language as its primary vehicle. However, it is also without question that a goal for all children—TD or with LI—is to become proficient speakers of the majority language. In the United States, proficiency in English is necessary for long-term academic and vocational success. It is, therefore, important to consider whether emphasizing the home language, despite its fundamental role in the social and emotional well-being of the child, will have negative consequences for the child's learning of the majority language.

With TD language-minority children in the United States, evidence suggests that intense support for the home language during the preschool years may help, rather than hurt, long-term attainment in English. Campos (1995) reported results from a longitudinal study in the Carpentería School District in California. The intent of this study was to compare academic attainment by children in a

Spanish-only preschool group to performance by three other groups of children: (a) Spanish-speaking children who attended English-focused community preschool programs, (b) English-speaking children who attended an entitlement preschool program (for children from low socioeconomic status [SES] backgrounds), and (c) English-only-speaking children who did not participate in an entitlement program because they were primarily middle class. Children were followed from kindergarten to junior high school. Performance between groups was compared on a variety of measures including standardized assessments, school report cards, attendance, and grade retention. Results showed that the English-only-speaking non-entitlement (middle-class) group significantly outperformed all other groups. This finding indicates the strong effects of SES on school achievement regardless of the language or cultural backgrounds of the students. However, the Carpentería Spanish-only preschool students showed significantly higher scores on standardized achievement tests at kindergarten entrance than both the English-only-speaking entitlement group and the language-minority preschoolers who attended other English-only community programs. These differences were maintained over time. In fifth grade, 80% of the Spanish Carpentería preschool group passed the district proficiency test (in English) as compared to only 30% of the language-minority comparison preschool group who attended English-focused community preschool programs (Campos, 1995). These results indicate that systematic instruction in a child's home language during the preschool years supports later academic achievement in English, and are consistent with the positive effects of home language support reported for older children attending bilingual education programs (see Gutierrez-Clellen, 1999, and Krashen, 1999, for reviews on bilingual education).

Although investigations of linguistically diverse preschool children are very limited, the available evidence suggests that systematic support for a child's home language does not reduce the long-term attainment of the majority language. To the contrary, it appears that systematic support for the home language through the preschool years ultimately increases academic achievement and proficiency in the majority language, at least for TD children. Professionals working with TD young children can therefore be reasonably confident that early education programs designed to support the home language will also provide the foundation needed for learning the community language. However, for linguistically diverse children with LI, the picture may be less clear. That is, the clinical question that professionals and parents must ask is, are children with LI capable of learning two linguistic codes given that, by definition, they have a primary weakness in language?

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## ARE CHILDREN WITH LI CAPABLE OF LEARNING TWO LANGUAGES?

A common belief among professionals as well as parents is that bilingual children with LI are at a distinct long-term

disadvantage as compared to monolingual children with LI. That is, the prominent belief is that input in two languages places unwarranted demands on the deficient language-learning systems of children with LI. This belief has led well-intended professionals to ignore the functional need for both languages of linguistically diverse children discussed in the first section of this article, and suggest that input be restricted to a single language so as not to exceed the language-learning capacities of the child with LI. (See Kohnert & Derr, 2004 for additional discussion.)

This hypothesis that dual-language input has disproportionate negative consequences for children with LI has received very little direct empirical attention. An important exception is a recent study by Paradis, Crago, Genesee, and Rice (2003). Paradis and her colleagues found that 7-year-old Canadian children with LI who received consistent input in two languages from birth (French and English, in this case) did not fare worse than their monolingual peers with LI. That is, both monolingual children with LI and bilingual children with LI were affected to the same degree, as measured by performance on spontaneous language samples. It is important to note, however, that children in this study were simultaneous bilinguals who received consistent input from birth in both French and English. Furthermore, both of these languages had relatively high prestige in the larger community, thus the social context for bilingualism is seen as “additive” (Lambert, 1975). This is not the case for linguistically diverse learners in the United States. Languages other than English often are not supported or valued in the larger community. Language-minority children in the United States therefore are considered to experience bilingualism in a subtractive context (Lambert, 1975). In spite of the sociolinguistic differences between language-minority children in the United States and participants in the Paradis et al. (2003) investigation, results from this study are significant in that they illustrate the capacity of children with primary LI to learn two languages, at least to a similar level as their monolingual peers with LI.

We can also ask if, for the young bilingual children with LI, single-language intervention is more effective than an intervention program that encompasses two languages. Thordardottir et al. (1997) used a single-case alternating treatments design to compare the effectiveness of bilingual and English-only conditions in working with a 4-year-old boy with LI living in the United States. This child’s first language was Icelandic; his second language was English. As expected, intervention in the English-only condition resulted in gains only in English vocabulary. The bilingual condition resulted in gains in both Icelandic and English. For present purposes, it is important to note that gains in English, the majority language, were comparable across the two conditions.

Another study in the United States with somewhat older children also supports the use of home language in intervention, even when the goal is to increase skills in the majority language (English). Perozzi and Sanchez (1992) divided 38 bilingual first graders with low oral language scores into two treatment groups. Treatment Group A received vocabulary intervention in Spanish until criterion was reached, and then

English treatment was initiated. Treatment Group B received intervention only in English. The investigators reported that Group A—the bilingual treatment group—obtained criterion level performance on target vocabulary items in both Spanish and English faster than students in Group B learned only the English vocabulary.

These findings suggest that, at the very least, increasing skills in a child’s home language does not jeopardize learning of the majority language, even for young children with LI. A related issue that SLPs must consider is whether skills targeted in one language will generalize or transfer to the untreated language.

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## DO SKILLS LEARNED IN ONE LANGUAGE TRANSFER TO THE OTHER LANGUAGE?

For older children and adults, with and without LI, shoring up skills in one language seems to have a positive effect on language-based skill acquisition in the other language. For example, study results show that TD language-minority school-age children who were first instructed to read in their home language had a distinct advantage in reading and academic achievement in the majority language, as compared to peers who received primary reading and academic instruction only in their second language (e.g., see Cobo-Lewis, Eilers, Pearson, & Umbel, 2002; Genesee et al., 2004; Gutierrez-Clellen, 1999; Krashen, 1999). These findings are also consistent with reports of higher educational aspirations and greater academic achievement for immigrant children in the United States who become proficient speakers of both the home and community languages (Feliciano, 2001; Portes & Hao, 2002). There is also some evidence of cross-linguistic transfer for bilingual individuals with language disorders. In treating a bilingual adult with nonfluent aphasia, Kohnert (2004) found that improved performance on the naming of cognates (e.g., word pairs in two languages that share both form and meaning, such as *rose/rosa*) generalized from Spanish to English (Study 2).

López and Greenfield (2004) investigated the potential predictive relationship between Spanish oral language skills and English phonological awareness in 100 children attending a Head Start preschool program in the United States. Participants were all considered Hispanic and ranged in age from 4;0 to 5;6. A hierarchical multiple regression analysis was used to test potential cross-language transfer effects. Children’s scores on Spanish and English versions of a standardized language test along with their scores on a Spanish phonological awareness measure were entered into the equation to determine their independent contributions to scores on the English phonological awareness measure. Not surprisingly, English oral proficiency was the greatest predictor of English phonological awareness. However, the other two independent variables, Spanish oral proficiency and Spanish phonological awareness, were also significant predictors of English phonological awareness. In discussing these results, López and Greenfield suggested that it was important to strengthen the oral-language proficiency and

metalinguistic skills in the home language (Spanish) of these TD young children to facilitate the subsequent acquisition of literacy skills in English (López & Greenfield, 2004). Preschool-age children with LI are at significant risk for subsequent difficulties with literacy (e.g., Gallagher, Frith, & Snowling, 2000; Rescorla, 2000; Scarborough, 1990). Therefore, attention to metalinguistic skills (including phonological awareness) in the first language may pave the way for greater gains in literacy, in general, as well as more specific gains in the second language.

Aside from this study on metalinguistic skills and emergent literacy by López and Greenfield (2004), there has been relatively little evidence to support the idea that cross-language transfer from a first to a second language (or from a second to a first language) occurs spontaneously in 2- to 5-year-olds. Cross-language transfer relies largely on metacognitive or metalinguistic skills. As such, the benefits of generalization from the first to the second language for young children may be restricted to the interface between spoken and written language (cf. van Tuijl et al., 2001). That is, although older bilingual children and adults may be able to transfer skills from the first to the second language and back, there may be significant limitations on the cross-linguistic transfer of skills in younger children, who are at different levels of cognitive and linguistic development. In discussing this idea specifically as it relates to the carryover or generalization of skills from intervention administered in English to Spanish, the home language, Kohnert and Derr stated:

It is not reasonable to believe that, independent of clinical planning and appropriate scaffolding, children with language impairments will independently be able to transfer skills trained in English only to the Spanish needed to communicate with family members. (2004, p. 319)

The implication here is that if we want young children to develop the skills necessary to be successful communicators in each of their language environments, we should provide direct support for each language. In the absence of direct intervention, we should not expect young children with LI to be able to independently make the leap from one language to the other.

In summary, when two languages are needed for a child's long-term social, emotional, cognitive, academic, and vocational success, bilingual intervention is needed. Because the first or home language is particularly vulnerable to loss or incomplete acquisition in minority-language children, yet the family is the primary context for social, emotional, and cognitive development for 2- to 5-year-olds, the language spoken in the home must be a priority in early intervention programs. This relative emphasis on first or home language skills for young children with LI does not seem to jeopardize ultimate attainment in the majority language of the community and educational system. Rather, this first-language focus may provide a necessary foundation for the subsequent learning of the majority language.

Up to this point, we have focused primarily on those children whose families speak a single minority language. But what if parents and other family members are bilingual and combine the use of two languages so that the child

with LI receives code-switched or "mixed" language input? The following section presents families that combine two traditionally separate linguistic codes, specifically as this relates to facilitating communication in the young child with LI.

## SHOULD WE SUPPORT THE HOME LANGUAGE IF IT IS "MIXED"?

Many second- and third-generation immigrants in the United States are bilingual in that they use both the language of the broader community (English) and a minority language on a regular basis. Some bilingual families alternate between two traditionally separate codes (e.g., Spanish and English) on the same topic, between sentences, or sometimes even within a sentence. This code switching is an effective communication mode available to proficient bilingual speakers for interactions with other individuals who share both languages. Code switching is more common during informal interpersonal interactions, including those that take place between family members in natural contexts (Zentella, 1999). This type of code switching is not a disorder when adults do it, it does not cause delays, and it is not necessarily evidence of delays or deficits in children (Garcia, 1983; Nicoladis & Genesee, 1997; Poplack, 1980). The language-learning environment for some children includes substantial amounts of this mixed language input. Previous research indicates that TD young children mix traditionally separate language codes in proportion to the amount of code switching used by primary care providers (Lanza, 1992; Petitto et al., 2001). The question here is, does mixed or code-switched language input further disadvantage the child with LI?

SLPs often provide services to young children with LI who live in families in which there is a natural mixing of two languages. It is common for professionals to advise care providers who are bilingual and use both languages interchangeably with their child to stop switching codes—to essentially choose one of the traditional language codes (e.g., Spanish or English) and not waver from its use (e.g., McCardle et al., 1995). Implicit in this advice are two beliefs. The first belief is that mixed language input is harmful to the child, either causing or exacerbating LI. The second implication of this advice is that picking—and sticking—to a single traditional language code is something relatively easy for parents to do. Our perspective here is that this advice may be misguided and potentially runs counter to professional mandates to include parents as partners in the intervention process. That is, implicit in this advice is that care providers have done something wrong, in that alternating between two languages somehow causes or contributes to their child's LI. To date, there is no evidence to support this hypothesis. To the contrary, the fact that the majority of children who grow up with parents who provide an environment rich with mixed language input do not have communication delays speaks against it. The point here is that code-switched language use may be the primary speech community of the home. The primary

speech community should be recognized and respected by culturally proficient professionals.

It is also very important that we recognize the additional cognitive demands inherent in asking proficient and frequent code switchers to use only a single language during spontaneous interactions with their child. Exerting conscious, volitional control over what was once an automatic process—although clearly not impossible for proficient bilingual adults—comes at a cost. The cost to be paid when this type of inhibition is required, even for proficient bilingual adults, includes increased effort and processing time (Hernandez & Kohnert, 1999; Kohnert, 2002; Kohnert, Bates, & Hernandez, 1999; see also Kohnert & Derr, 2004, for discussion). Conversely, children who are listening to mixed language input do not seem to be at a disadvantage. For example, Kohnert and Bates (2002) compared the processing of mixed lexical input in receptive and expressive domains in TD Spanish–English bilingual children ages 5 through adolescence. For the receptive domain, they found that there were no additional processing costs when children listened to words that alternated between Spanish and English, as compared to the demands of processing words in only a single language. Although further investigation is needed in this area, evidence to date suggests that mixed language input may not be detrimental to the child, particularly when this is the code the child has experienced during natural interactions over time. Conversely, in advising parents to avoid switching languages with their child, we are placing demands on the adults that may have a negative effect on both the quantity and quality of parent–child interactions.

An alternative view is to recognize the cultural, social, and communicative validity of the mixing of two traditionally isolated linguistic codes as a third legitimate code. This recognition will allow us to develop meaningful partnerships with parents and other family members in our collective efforts to support communication in the young child with LI. Of course, we also need to be sure that the child develops the greatest level of skill possible in each of the language codes typically used in the communities in which he or she functions. For children living in the United States, in addition to the “bilingual code,” children will also clearly need English to be able to interact in the majority, monolingual English academic and community settings. The issue then becomes how to facilitate the child’s development of the language codes needed for communication with monolingual speakers of each language while still valuing the mixed language code used in the home—a point we return to in the following section.

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## GENERAL INTERVENTION STRATEGIES FOR SUPPORTING THE HOME LANGUAGE

This section covers general intervention strategies that may be developed to facilitate the home language (be it a single minority language or some combination of two languages) in young linguistically diverse learners with LI. A number of studies provide strong support for the efficacy

of early intervention for young children with primary LI (see Ellis Weismer, 2000, for review). Given the demonstrated benefits of early language intervention, it is important that linguistically diverse learners with LI are able to participate in effective intervention programs. For language-minority children, access to both home and community languages is fundamental to social, emotional, cognitive, academic, and vocational success. Therefore, the language-minority child with LI will need intervention that plans for skill acquisition in two languages. It is not necessary, however, that both languages be used for intervention at the same time, or in the same ways (Kohnert & Derr, 2004). Recall that for language-minority children, it is likely that early systematic intervention in the majority language, in the absence of enrichment in the home language, may result in a regression or failure to develop first-language skills. This loss or failure to develop the home language has potential negative long-term consequences on the child’s social, emotional, and academic development as well as on the family dynamics. Therefore, SLPs must be prepared to deliver timely services to linguistically diverse children with LI in a manner that effectively supports the development of the primary home language, particularly with young children in the initial stages of intervention.

The next set of clinical questions revolves around how this can best be achieved. How can SLPs support communication development in young children who learn a language at home that is different from that of the majority community? The answer to this question is relatively straightforward for bilingual SLPs who share a common language with their clients—such as the clinician who is proficient in both Vietnamese and English and provides services exclusively to children from these language groups. However, in many cases, the SLP does not speak the primary language spoken in the child’s home. Consider that in the 2000 U.S. census, 18% of the total population aged 5 years and greater, or 47 million people, reported that they spoke a language other than English at home. Of these individuals, approximately 21 million indicated that they did not speak English “very well” (Shin & Bruno, 2003). The languages present in these homes included Spanish, Chinese, Tagalog, Vietnamese, Arabic, Hindi, French Creole, Russian, Urdu, Gujarathi, as well as dozens of other languages. Although the breadth and depth of linguistic diversity varies across the United States, 23 states reported that at least one in ten individuals spoke a language other than English at home. In contrast to this language variation among the general population in the United States, only 2% of certified members of the American Speech-Language-Hearing Association (ASHA) are able to provide clinical services in languages other than English (as reported in Langdon & Cheng, 2002). Increasing the number of bilingual professionals among SLP ranks will certainly address some of this language mismatch. However, given such breadth and depth of linguistic diversity among the general population, it is unlikely that many SLPs will speak all of the languages of the children they serve (Kohnert et al., 2003). So the question remains, how can SLPs facilitate development in a language they often do not speak?

We provide an overview of two potentially useful methods for increasing skills in the home language of young linguistically diverse learners with LI: parent or paraprofessional training and peer mediation. These methods are by no means the only options available to SLPs, but rather illustrate ways the existing literature may be applied to the challenge of supporting skills in a minority language. Although our focus here is on language issues, implicit is the understanding that clinicians should be proficient in embedding linguistic considerations within the broader cultural needs of the child and his or her family. We refer the reader to the following resources for more explicit information on the cultural considerations and competencies needed for effective clinical interactions (e.g., Anderson & Battle, 1993; Battle, 2001; Goldstein, 2000; Kohnert et al., 2003; Lynch & Hanson, 1998; Moore & Perez-Mendez, 2003; Roberts, 1990; van Kleeck, 1994; Westby & Rouse, 1985).

### **Training Parents, Paraprofessionals, and Cultural Community Partners**

In a recent meta-analysis of treatment efficacy for children with developmental speech and language disorders, Law, Garrett, and Nye (2004) found that intervention that was administered by trained parents was, in general, as effective as intervention that was administered by SLPs. In parent training programs, professionals directly instruct care providers in specific techniques that have been shown to support language development in young children (see Girolametto & Tannock, 1994, for review). The goal is that parents will learn and use these specific language facilitation techniques that will, in turn, result in gains in their child's communication behaviors. Thus, the SLP provides direct instructional intervention to the parent, and the parent becomes the primary administrator of intervention to the child. Parent and family training programs for young children with disabilities are also consistent with federal mandates that emphasize partnerships between families and professionals (Public Law 99-457 and Public Law 94-142).

Parent or care provider training does not simply consist of providing written handouts, homework assignments, or brief descriptions of techniques designed to facilitate communication. It takes time, preparation, and an additional set of professional abilities (Buteau & Kohnert, 2000). That is, teaching parents to implement a specific intervention with their preschool children requires an additional set of skills from those required for professionals to directly implement language intervention with the child (Bailey, Buysee, Edmondson, & Smith, 1992). Successful parent training programs share a number of important features. They tend to focus on specific language facilitation strategies (e.g., modeling, expansion, recasts, imitation, responsive feedback) and incorporate multiple instructional methods (e.g., demonstration, coaching, role plays, mediated parent-child interactions, videotaped examples, written materials, and specific instructive feedback). Successful programs are also systematic in their approach, using a progression of skills and strategies embedded in specific

activities tailored to the needs of the specific child and his or her family. Implementation of these programs is sometimes intense but more often takes place during many sessions and over several months to allow for change, feedback, and skill monitoring.

Parent training programs are a potentially viable option for supporting the home language of linguistically diverse preschool children with LI when at least one of the primary care providers is bilingual. If parents are proficient in the language spoken by the SLP, training can be implemented in this language. Specific emphasis is needed to help the bilingual parent generalize the techniques trained in English for use in the primary language(s) of the home. For bilingual families who mix their two languages in casual discourse, in addition to training specific language facilitation techniques to incorporate into natural interactions, we can identify activities in which the blocking of language codes is facilitated. We would not ask parents to alter the degree of each language they use in conversation with their child (for reasons discussed in the previous section); however, we may want to suggest activities, such as book reading, singing, story telling, rhyming, or rapping, that are more defined and therefore easily implemented in a single language.

Another important issue is whether the effectiveness of parent training programs can be preserved when paraprofessionals or community representatives are needed to bridge the language gap between the family and the experienced professional. For example, when the primary language spoken by care providers is Hmong and the SLP speaks only English, can parent training programs still be effective? To our knowledge, there is no published research that directly addresses this issue. However, results from a handful of studies suggest that variations on parent instructional programs that involve a systematic apprenticeship-type of training with paraprofessionals may, with further refinement, be effective in supporting communication development in preschool children (e.g., Delaney & Kaiser, 2001; Hancock, Kaiser, & Delaney, 2002; Hester, Kaiser, Alpert, & Whiteman, 1995; Leseman & van Tuijl, 2001; van Tuijl et al., 2001).

Hancock et al. (2002) investigated the effects of an intervention designed to change the patterns of parent-child interaction in low-income families. Three female early childhood specialists served as parent educators; 2 had bachelor's degrees and 1 had a master's degree (not in speech-language pathology). All 3 childhood specialists participated in more than 40 hr of training in the specific language and behavioral intervention used in this study, which was Blended Communication and Behavior Support Strategies (BCBS). Five parents (4 mothers and 1 grandmother) participated in thirty 30-45-min individual sessions with one of the trainers over a 6-10 month period. During these individual sessions, parents were provided with new information as well as feedback about the use of previously introduced strategies and their child's responses. New information was introduced verbally using role plays supplemented with handouts adapted to parent's reading level and videotapes to show specific examples of new procedures. These trained parent educators provided parents

with specific instructions about how to use the strategies when interacting with their children during the play interaction practice session. The parent educators also modeled the procedures with the child. All parents acquired and implemented at least five of the seven strategies taught in the intervention. Parent satisfaction with the program was also very high, with mean ratings of 4.2 to 5.0 on a five-point scale for 10 of 11 measures. Child performance across the intervention period was more variable, with strong evidence of improved language performance for 3 of the 5 children.

These results suggest that adequately trained and supervised paraprofessionals may be viable candidates for implementing parent training programs for linguistically diverse as well as economically diverse families. Additional information is needed in this area to clearly identify the critical components of triadic (SLP–paraprofessional trainer–parent) intervention programs. Despite the pressing need for additional clinical research in this area, we are cautiously optimistic that some variation of the “train the trainer” model may be one potentially effective approach to language intervention with some preschool-age children with LI.

An important caveat is that some of the strategies recommended to facilitate children’s communicative interactions in existing programs are based on research with the majority population in the United States. The use of these strategies may not be consistent with cultural values of linguistically diverse children and their families (van Kleeck, 1994). For example, recommendations to parents or other care providers to “follow the child’s lead” assumes that it is both appropriate and desirable for the child to be the center of attention and to lead the conversation with adults. This is not a value held by all cultures (e.g., Heath, 1983; Ward, 1971). In her review of potential cultural biases in training parents as conversational partners, van Kleeck (1994) suggested three possible alternatives for clinical intervention when parent–child interactions in a particular family differ from those found in the mainstream population on which such programs were based. These three alternatives are (a) to keep the parent training program the same, (b) to alter a mainstream program to fit the family, or (c) to create a training program to fit the family. The latter option seems the most viable in working with culturally as well as linguistically diverse children (see van Kleeck, 1994 for review).

## Using Peer-Mediated Intervention Strategies

Other variations on the indirect service delivery model for young children with LI are to incorporate their TD peers or siblings into the intervention process. This service delivery option may be particularly important in cases where it is not culturally appropriate for adults to engage young children directly as communicative partners (cf. van Kleeck, 1994). In a yearlong observation of a bilingual classroom, Chesterfield and Chesterfield (1985) noted that first graders commonly initiated and participated in peer instructional episodes. In addition, language proficiency

was not a significant factor in these interactions. Thomas and Collier (1997) also pointed to the importance of peer models in bilingual education programs as a way to facilitate naturalistic linguistic interactions throughout the school day. There are few studies investigating the effectiveness of peer modeling on TD bilingual children and, to our knowledge, none investigating the effectiveness of peer modeling with linguistically diverse preschoolers with LI. However, there are studies of young monolingual English-speaking children with LI indicating that peer- or sibling-mediated intervention is one option that merits further attention to meet the clinical challenge of serving linguistically diverse preschoolers with LI.

Robertson and Ellis Weismer (1997) examined the effects of peer modeling during sociodramatic play on the development of language scripts in children with LI. Participants were 4- to 5-year-old monolingual speakers of English, with or without LI. In the experimental group, 10 children with LI were individually matched with a TD age peer. These LI and TD pairs of children participated in four 15-min play sessions per week. Children were instructed to play house using the various props provided. A control group of 10 additional children with LI did not participate in these peer interactions. There were significant differences between pre- and posttreatment performance for children with LI in the control and experimental groups. Children with LI in the experimental group demonstrated much greater gains on a number of different linguistic features, including lexical–semantic diversity, morpho-syntactic markers, and script development. Study results were consistent with the notion that play interactions with normal-language peers facilitated development of play scripts and higher levels of language (Robertson & Ellis Weismer, 1997).

In many early childhood education programs, there are two or more speakers of the same minority language. In these cases, one potential intervention strategy may be to pair the child with LI with another child who is a typical learner of the same home language. Skilled pairing of children along with the provision of an environment for interaction and consistent monitoring of these interactions may result in improved language performance for children with LI (e.g., Wood & O’Malley, 1996). If the TD peer also speaks English, direct shaping or mediation of the language used in play by the SLP is an option. In other cases, it may be appropriate to train bilingual paraprofessionals to provide additional support for peer play (see also Craig-Unkefer & Kaiser, 2003, for mediated play techniques and McGregor, 2000, for review).

McGregor (2000) conducted a series of studies to better understand narrative development in 3- to 5-year-old African American children. The third study in this series provided a preliminary test of an intervention to determine if peer models (tutors) would enhance narrative performance in 2 children who had been identified with relatively low narrative abilities (tutees). In this intervention, the tutor selected a book from a carefully predetermined set of narratives. The tutor then told the story to the tutee. The clinical investigator was present during these story-telling interactions and provided occasional prompts and feedback

regarding story elements to the tutor. One of the reasons for this type of intervention was to minimize racial, cultural, and dialectal mismatches that are often found between young children and SLPs. There were ten 20-min training sessions of this type over an 8-week period. As a result of this intervention, the tutees' rate of growth in narrative production (based on the number of story elements used as well as utterance length and lexical diversity) was superior to that of children with relatively low narrative skills who did not participate in the clinician-prompted, peer-mediated intervention sessions. It is also important to note that performance by the children who were more advanced at the beginning of the study did not decline as a result of their focused interactions with less-skilled language users, but was maintained or increased. This intervention strategy could readily be applied to linguistically diverse learners as well, with appropriate planning. If the clinician-prompted component of the intervention is to be used, it would again involve a typical peer (or perhaps an older sibling) who also speaks the primary language of the SLP. Hybrid models that incorporate training of parents, paraprofessionals, or other individuals who share the primary language of the child with LI could also be developed.

Intervention is most definitely not a "one size fits all" endeavor. We do not presume that either of the methods presented here will be appropriate for all linguistically diverse children with LI or solve all of the challenges faced by clinicians in providing effective intervention services to this population. Rather, we hope that this discussion prompts other professionals to refine the methods presented here or to develop additional options that will increase effective intervention with young linguistically diverse learners.

## CONCLUSION

This article addressed a series of questions that are critical to planning and implementing effective intervention programs for young linguistically diverse learners with LI. For purposes of this discussion, linguistically diverse learners include those children whose families speak a single minority language as well as those children who are frequently exposed to two languages in the home. Effective intervention, from our perspective, requires systematic support of the primary language(s) spoken in the home by parents and other family members. We grounded this perspective in studies demonstrating a regression or failure to develop first-language skills in language-minority children when systematic instruction is provided in the community language but not the home language. We observed that a loss or failure to develop the home language has potential negative long-term consequences on the child's social, emotional, and academic development as well as on the family dynamics.

SLPs must be prepared to deliver timely services to linguistically diverse children with LI in a manner that effectively supports the development of the primary home

language, particularly with young children in the initial stages of intervention. Parent and paraprofessional training along with peer-mediated models of intervention are two possible methods for facilitating the home language in children with LI. Neither approach to intervention is without problems; however, we suggest that both may be considered important starting points in the effort to provide effective intervention to young linguistically diverse children with LI.

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