Towards evidence-based practice in language intervention for bilingual children

Elin Thordardottir *

School of Communication Sciences and Disorders, McGill University, 1266 Pine Avenue West, Montreal, Quebec H3G A8, Canada

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Abstract

Evidence-based practice requires that clinical decisions be based on evidence from rigorously controlled research studies. At this time, very few studies have directly examined the efficacy of clinical intervention methods for bilingual children. Clinical decisions for this population cannot, therefore, be based on the strongest forms of research evidence, but must be inferred from other sources. This article reviews the available intervention research on bilingual children, the current clinical recommendations for this population, and the strength of the empirical and theoretical support on which these recommendations are based. Finally, future directions are suggested for documenting current methods of intervention and developing optimal methods for different groups of bilingual children. Although the current research base is limited, the few studies available to date uniformly suggest that interventions that include a focus on both languages are superior to those that focus on only one language. The available research offers little guidance, however, as to the particular treatment methods that may be most appropriate. Further research is required to examine efficacy with larger numbers of children and children of various bilingual backgrounds. It is suggested that efforts to develop and test intervention methods for bilingual children must carefully consider the linguistic heterogeneity of bilingual children and the cultural variation in communication styles, child rearing practices, and child rearing beliefs. This will lead to the development of methods that may involve treatment methods that are more suitable for other languages and cultures.

Learning outcomes: Readers will become familiar with current recommendations for the treatment of bilingual children with language impairment, including which language or languages to use, the requirement for cultural sensitivity, and specific procedures that may be beneficial for bilingual populations. The heterogeneity of the bilingual population of children is highlighted. Readers will gain an understanding of the strength of research evidence backing up recommended practices, as well as of gaps in our current knowledge base and directions for further development and research.

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Speech-Language Pathologists (SLPs) in countries across the world can expect to encounter bilingual children on their caseloads, occasionally or as a matter of routine. With the strong emphasis in recent years on evidence-based practice (EBP) within the field of Speech-Language Pathology (e.g. Dollaghan, 2004; Justice & Fey, 2004), SLPs are aware of the requirement of basing their interventions on the strongest available research evidence. Research evidence ranges from meta-analyses of well conducted efficacy studies and large-scale randomized control trials (RCTs) to forms of evidence considered weaker but still informative, such as group or single-subject studies with appropriate experimental controls. Clinical case studies and expert opinion can offer valuable insights as well, although they must...
be interpreted with caution (Ratner, 2006). To date, very few studies have been published that evaluate the efficacy of intervention methods used with bilingual children, and the few studies that are available fall into categories of evidence considered weak. As a result, current treatment recommendations for bilingual children are largely inferred from what is known about intervention with monolingual children or about language development in typically developing bilingual and bicultural children. Nevertheless, bilingual children with language impairment constitute a significant portion of the caseloads of SLPs and it is imperative to provide them with the best possible intervention. This article will identify major questions regarding intervention for bilingual children, present current recommendations and suggestions, evaluate the strength of evidence on which these are based, and point to directions for future research and clinical development. The main focus of this article will be on intervention for oral language development. Literacy and academic language skills are other important aspects of bilingual development but are beyond the scope of this article.

1. Published efficacy research

A thorough review of the research literature yielded only a handful of studies that directly assessed the efficacy of language intervention with bilingual children. These studies vary in the types of intervention they evaluated, in the populations (i.e., in terms of age, level of bilingualism, and languages spoken), as well as in the clinical goals addressed. Further, sample sizes are small and the research designs in general incorporate weak forms of experimental control, and in some cases, no experimental control. The studies and their outcomes are summarized in Table 1. Of the studies included in Table 1, three involve single-subject studies and four are group studies with varying levels of experimental control. Six of the studies include a no-treatment comparison to baseline measures, untreated control targets, or no-treatment control groups. Only one of the studies employed random assignment to groups.

A common question across these studies concerns the most appropriate language of intervention. In this respect, the studies all converge on supporting the inclusion of L1 in intervention, although they vary in the way in which they accomplish this. The study of Pihko et al. (2007) is an exception but also has a different goal than the other studies, namely to eliminate specific behaviors seen as resulting from interference related to bilingual exposure rather than facilitating the acquisition of language structures. The studies include a variety of methods of targeting L1 and L2, including: (a) a comparison of L1 vs. L2 interventions (Schoenbrodt, Kerins, & Gesell, 2003), (b) an L2 intervention compared to an intervention using L1 and L2 in succession (Perozzi & Sanchez, 1992), (c) a comparison of L2 intervention with simultaneous L1/L2 intervention (Elin Thordardottir, Ellis Weismer, & Smith, 1997), (d) an intervention with a longitudinal progression from L1 use only to gradual introduction of L2 along with L1 (Seung, Siddiqi, & Elder, 2006), and (e), intervention in L2 by a researcher and concurrently in L1 by the parents (Tsybina & Eriks-Brophy, this issue). Holm and Dodd (1999) conducted phonological intervention solely in L2 and showed generalization to L1. The literature search did not yield a single published study showing a monolingual focus in intervention to be superior to a bilingual focus. In that sense, these intervention studies are consistent with the findings of the few available studies on the ability of children with language impairment to acquire two languages, which uniformly support the view that children with language impairment are capable of bilingualism and that bilingual exposure does not hinder their language development (Feltmate & Kay-Raining Bird, 2008; Kay-Raining Bird et al., 2005; Paradis, Crago, Genesee, & Rice, 2003).

Taken together, these intervention studies reported on in Table 1 suggest that using L1 appears to facilitate the acquisition of L2 in children with language impairment and that a focus on both languages in intervention is beneficial. However, more research is required to refine these findings. First, in the available studies, treatment gains are measured primarily in one language (the majority language of the community). Thus, these studies suggest that L1 intervention aids the learning of L2. However, this effect is not shown consistently for all therapy targets or all outcome measures. Elin Thordardottir et al. (1997) found an advantage of a bilingual intervention for home words (encountered primarily in the L2 outside of therapy), but not for school words (encountered primarily in L1 outside of therapy). Schoenbrodt et al. (2003), using narrative language intervention, found differences between L1 and L2 intervention for a story generation score, but not for other outcome measures, such as narrative style, or story grammar elements included. Further research is needed to ascertain how the language of intervention interacts with the specific background characteristics of the children in terms of their bilingual exposure and environments. Moreover, the results of several studies also show that L2 learning does take place in an L2-only intervention, though, in these studies, L2-only intervention proved somewhat less efficient than intervention that included L1 as well (Perozzi & Sanchez, 1992; Elin...
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Thordardottir et al., 1997). Because the outcome measure is almost always in the child’s L2, these studies do not address the effect of bilingual intervention on L1 or the effect on L1 of an L2-only intervention (Holm & Dodd, 1999 being the exception). If the goal of treatment is to support both languages, as arguably it should be, then future intervention studies must use outcome measures in both languages. Studies on bilingual children with normal development indicate that instructional activities must systematically target both languages if growth is to occur in both (Kohnert, Dongsun, Nett, Kan, & Duran, 2005; Restrepo et al., 2010). Finally, none of the studies in Table 1 focuses on simultaneously bilingual children. As for intervention methods, the available studies have varied in the approaches they used, but they do not provide any systematic analysis of the extent to which the teaching procedure or target selection were tailored for the children. Clearly, many questions relative to language choice remain to be subjected to empirical study.

2. Currently recommended best practice

Given that the strongest forms of evidence such as meta-analyses and randomized control trials (RCTs) are not available yet for bilingual children, practitioners must, for the time being, base their decision on other forms of information. These include theoretical support derived from research on normal development and language impairment of monolingual and bilingual children. Many authors suggest that an exclusive focus on meta-analyses and randomized studies can prove misleading, and that single-subject experiments and clinical case studies can contribute meaningful insights (Ratner, 2006; Johnston, 2005). These kinds of studies do also have the benefit of highlighting individual variability which is relatively masked in group studies. In this section, the position statements from three major professional associations are reviewed: the American Association of Speech-Language Pathologists and Audiologists (ASHA, 1985), the Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA, 1997), and the International Association of Logopedics and Phoniatry (IALP, Fredman, 2006). Each of these statements mentions specific competencies that SLPs working with bilingual children should possess, including: (a) native or near-native proficiency in both languages spoken by the child, (b) an understanding of cultural variability and how such variability can affect clinical services, and (c) the ability to conduct assessment and intervention in the minority language (ASHA, 1985; CASLPA, 1997; Fredman, 2006). It is recognized in these position statements that qualified bilingual SLPs are not always available for the numerous languages of children in need of services. If referral to a bilingual SLP is not possible, working with interpreters is recommended. General guidelines are offered as to how interpreters should be trained to fulfill their role. In terms of language of intervention, the general focus is on the inclusion of both languages or a main focus on the stronger language. ASHA's position paper states that for children who are dominant in English and for whom it is determined that English is an appropriate language of intervention, it is not necessary that the SLPs be bilingual (ASHA, 1985). This recommendation is not based on research evidence but rather is meant to provide guidelines to deal with the urgent need to provide intervention to bilingual children given the current resources. In contrast, the IALP and CASLPA position papers recommend a bilingual focus for all bilingual children. A recent study conducted by IALP’s Multilingual Affairs Committee (Jordaan, 2008) surveyed the practices of clinicians serving bilingual children in SLP associations of 10 countries affiliated with IALP. Information pertaining to 157 bilingual children revealed that 74% of them were being served by monolingual SLPs, and 87% of the SLPs reported using only one language in intervention, which was often not the child’s first language. These numbers underscore the discrepancies that exist between the practices recommended in IALPs position statement and the services being provided by members of SLP associations affiliated with IALP.

3. The language of intervention

Which language to use may be the most frequently asked question in relation to intervention with bilingual children. The position statements of ASHA, CASLPA and IALP do not all give the same recommendation on this issue. CASLPA recommends intervention in the child’s first language, provided by the SLP alone or with the help of collaborators, but also states that a bilingual, bicultural intervention is preferred for bilingual individuals (CASLPA, 1997). IALP’s recommendations state that the current consensus is that bilingual children with language impairment should ideally get bilingual intervention in order to promote their first language (L1) skills while also helping them to learn their second language (L2). These guidelines further state that the choice of language of intervention should be
made in consultation with the parents, and that while the parents’ emphasis on maintenance of the home language should be respected, they should also be counseled on the benefits of working on the stronger language initially. IALP states explicitly that the language of home should never be changed (Fredman, 2006). In contrast to these two position statements, ASHA’s statement makes no mention of bilingual intervention.

The recommendation of inclusion of both languages in the CASLPA and IALP position statements is supported by the available research, as noted in the review of the research literature in a previous section and in Table 1. However, it must be noted that the research base is still limited. To the extent that the position statements differ in their specific recommendations, these differences may in part reflect geographical differences in the kinds of bilingual populations served, as well as differences in cultural views towards bilingualism and in instructional traditions. Bilingual children do not constitute a single population. They vary greatly in aspects such as the age of onset of bilingualism, the relative amount of exposure to each language, and the settings in which this exposure takes place. In some geographical areas, most bilingual children speak a minority language at home, but are subsequently schooled in the majority language. This type of context is commonly reported, for example, for Spanish-speaking children in the US. In such areas, the languages are often termed the home language and the school language and most of the children are sequential bilinguals. Children reared in such settings may have access to a large community of speakers of their home language, meaning that the child needs to be proficient in that language and also has many opportunities for practice outside the home. Other sequentially bilingual children are part of much smaller minority groups, such that their L1 is not supported by a community larger than the home. In general, minority languages are reported to be much more vulnerable in development than majority languages (Gathercole & Thomas, 2009; de Houwer, 2007; Pearson, 2007). Children in these types of minority/majority language environments typically have a clear first (L1) and second language (L2). Clinical recommendations that are stated in terms of L1 and L2 are readily applicable conceptually to this group of children.

In contrast to these groups of sequentially bilingual children, many children are exposed to bilingualism at a much younger age than school entry, either at home or in daycare or preschool. This type of situation is common, for example, in French–English bilingual areas of Canada (notably in Montreal) as well as in many other parts of the world. Children who acquire their two languages simultaneously rather than sequentially do not necessarily have a clear L1 and L2, and they may or may not have significantly greater proficiency in one language than the other. For this group of children, there may or may not be a clear separation between a home language and school language in that one or both of these contexts may be bilingual and neither language may be acquired significantly ahead of the other regardless of whether both are spoken in the home. Therefore, the current recommendations stated in terms of treating either the first language (L1) or the stronger language cannot be straightforwardly applied to these children. For many children, the exposure pattern changes along the way such that they may experience a shift in the language they are exposed to most often, or they have periods of monolingual exposure. For example, the children may change daycares or start to attend daycare for shorter or longer times. The family may move to a different country, interrupting the child’s bilingual exposure or potentially providing exposure to a third language.

The current recommendation of bilingual intervention or intervention in the stronger language (ASHA, 1985; CASLPA, 1997; Fredman, 2006) may ultimately be refined by future research that addresses the varying needs of bilingual children, delineating appropriate strategies for children depending on their situation, or even for the same child at different points in time. As noted above, the few available efficacy studies focus predominantly on sequentially bilingual children who have a relatively uniform pattern of speaking an L1 at home and an L2 at school (see Table 1).

4. Theoretical issues related to language of intervention

The language of intervention can be seen both as the target of intervention and as its medium. In SLP intervention, therapy goals and objectives are generally selected and prioritized according to criteria based on assessment results (profile of strengths and weaknesses). Another consideration involves the child’s needs, that is, what types of gains would result in the most functional changes for the child (Ellis Weismer, 2000; Fey, 1986; Paul, 2007). A noticeable, or practically significant, improvement in the ability to communicate in settings that are important to the child constitutes improved language skills. Such functional gains will also engender generalization and retention of treatment gains and boost motivation and thereby continued learning. Therefore it is important to consider not only the current language proficiency of the child (such as by assessing their language dominance), but also the current communicative contexts of the child – a practice that is routinely a part of goal setting in SLP.
5. Potential advantages of focusing on the stronger language

An advantage, theoretically, of choosing to focus on the child’s stronger language is that it is the stronger medium, therefore better allowing new information to be presented in a familiar context. This should make it easier for the child to understand the new information in relation to other linguistic elements, free up working memory capacity, and prevent the information presented from becoming overwhelming. It also permits the clinician to work at a more complex language level thereby advancing the child’s highest attained level of language knowledge. Further, it is possible (although this needs to be verified for each case) that the reason why the child has a stronger language is that this language predominates the communicative contexts that are most important for the child. Focusing on this language may produce very functional gains in that language that may be more readily transferred to key settings outside of therapy. The stronger language can be targeted alone or with some inclusion of the weaker language as well. Whether a secondary focus on the child’s weaker language is a source of a significant boost in gains in the stronger language may depend on how strong that language is and how functional it is for the child. Alternatively, inclusion of the weaker language may serve the main purpose of supporting that language, and by doing so, supporting the child’s language proficiency as a whole – arguably a very appropriate clinical goal. Bilingual competence involves a continuum (Valdés & Figueroa, 1994). In other words, language dominance comes in degrees and depends on contexts or topics. For example, the child may prefer to talk about school-related matters in the language of school, but topics related to soccer in the language in which he or she practices soccer. Basing intervention decisions solely on the determination of an overall dominance (ASHA, 1985) reduces dominance to a binary distinction which may ultimately be too simplistic a criterion on which to base intervention decisions.

6. Potential advantages of focusing on both languages

The simplest way to conceptualize the advantage of systematically targeting both languages is to point out that it directly seeks to produce gains in both, thereby promoting additive bilingualism (Kohnert et al., 2005; Restrepo et al., 2010). However, researchers have offered different theoretical supports for this practice. According to a number of authors (Gutierrez-Clellen, 1999; Jordaan, 2008; Perozzi & Sanchez, 1992), a major theoretical support for bilingual intervention comes from the language interdependence hypothesis of Cummins (1979, 1981). This hypothesis holds that a strong base in L1 is required as the basis for development of the L2, specifically because the two languages are seen as being interrelated in terms of sharing common underlying cognitive processes as well as a single representational system. Therefore, treatment gains in L1 are expected to transfer to L2. As a further consequence of the purported common representational system, it is contended that the child will attain the same level in L2 as he or she has reached in the L1 (Gutierrez-Clellen, 1999). In contrast to this view of a shared representation, many researchers have proposed that, in children acquiring two languages simultaneously, the two languages are fairly well separated from early on in acquisition in spite of some degree of interaction between them (Döpke, 1997; Köppe, 1996). Each of the languages is developed following a sequence similar, although not identical, to the monolingual development of children speaking one language (Nicoladis & Genesee, 1997). The rate of acquisition of each of the languages has been shown to be closely tied to the amount of exposure received in each language (de Houwer, 2007; Pearson, 2007; Elin Thordardottir, 2008a, submitted for publication; Elin Thordardottir, Rothenberg, Rivard, & Naves, 2006). Thus, it is recognized that the two languages interact in various ways in acquisition (Döpke, 1997; Köppe, 1996) and that the attainment of a high level in one language suggests the ability for the attainment of a similarly high level in the other language. However, it is not the case that the level of proficiency attained in the stronger language (or the L1) in and of itself leads to a similar level of performance in the second language. As summarized in Table 1, Holm and Dodd (1999) showed that some degree of transfer can result in therapy from the treated to the untreated language, at least for some aspects of language, such as underlying phonological patterns shared by both languages. Similarly, a case study on a bilingual adult with aphasia showed that cross-linguistic transfer occurred in vocabulary intervention only for words that were Spanish–English cognates, sharing both form and meaning in both languages (Kohnert, 2004). These findings show that certain interconnections between languages do appear to occur in intervention. However, it is not realistic to expect that treatment only needs to focus on the stronger language if the goal is to achieve gains in both. In light of this, it could be argued that it is not necessary to invoke such strong views of interdependence or shared representation as the language interdependence hypothesis (Cummins, 1979, 1981) to find theoretical support for the provision of bilingual intervention. Commonly accepted standards of clinical practice dictate the
selection of functional therapy targets that will lead to improved communication in important daily life and academic settings (Ellis Weismer, 2000; Fey, 1986; Paul, 2007). They further dictate the use of effective intervention methods that make appropriate use of the child’s current level of language functioning to build more knowledge of language structure and appropriate uses of languages. For bilingual children, important communicative environments include two languages. What the child brings to the task in terms of previous language knowledge, previous experiences, and world knowledge involves two languages and two cultures. Including both languages allows the child to draw on all of his or her resources rather than being restricted to a subset of those.

The IALP formally recommends that the home language should never be changed (Fredman, 2006). Reasons for parents to continue to speak their own language include the fact that this language is the one that comes to them most naturally and the one connected to the cultural heritage that they impart to their child. Speaking to their child in another language can disrupt this cultural transmission, affect the parent–child bond (Wong Fillmore, 1991) and reduce exposure to appropriate language models.

7. Ways of including both languages in intervention

Both in research articles and in the position statements, “bilingual intervention” can mean many things, including the simultaneous use of both languages within therapy sessions or in different therapy contexts such as therapy sessions and home. Table 1 reports on studies employing various forms of language choice. In some cases, the term bilingual intervention is used to refer to intervention in which L1 is targeted in some way, even as the sole focus of intervention. The limited number of available research studies reported on in Table 1 indicate that a bilingual focus, even within the same session, can be more efficacious than a monolingual focus (Perozzi & Sanchez, 1992; Elin Thordardottir et al., 1997) and none of these studies suggests that the use of both languages reduces the efficacy of the intervention. Yet, traditional methods for bilingual children have often insisted on a clear separation between languages with a permanent focus on one or a temporary focus one at a time. This has traditionally been advocated. This is a principal ingredient of the one-parent, one-language strategy (e.g. Barron-Hauwaert, 2004). The context in which this approach has been advocated most strongly is in families where each parent speaks a different language and sufficient exposure to each language is not reached unless it is enforced in this manner. The philosophy of language separation has made its way into clinical practice, and involves arranging therapy sessions to be as monolingual as possible and recommending this strategy to parents as a way to facilitate bilingual development. A criticism of this approach, however, is that strict adherence to it can be perceived as unnatural and in violation of pragmatic principles. Further, this approach often involves not responding to or reinforcing child utterances in the other language. Switching between languages in different situations as well as code-switching within a given situation is a natural characteristic of the language use of bilingual people (Genesee, 1989; Paradis & Nicoladis, 2007) and part of becoming a proficient bilingual speaker is to learn these pragmatic principles. Therefore, they need to be modeled correctly. At least two types of research evidence suggest that artificial means of language separation are not helpful to bilingual children. First, there is evidence that the language skills of children with LI, both those with SLI and children with LI secondary to Down syndrome, are not negatively affected by bilingualism (Paradis et al., 2003; Kay-Raining Bird et al., 2005). Second, there is some limited research evidence, as summarized in Table 1, to suggest that children with LI do as well or slightly better in bilingual intervention than monolingual intervention (Perozzi & Sanchez, 1992; Elin Thordardottir et al., 1997) and no published evidence to the contrary. Third, it is considered good clinical practice to respect pragmatic principles in intervention so that the child learns the forms of language within appropriate contexts. Nevertheless, there may be times when a relatively monolingual focus is desired. Kohner et al. (2005) suggest some ways in which this can be achieved in a pragmatically valid manner by using activities that are naturally monolingual, such as book reading and singing.

The current recommendations of the position statements reviewed in a previous section refer simply to which language or languages to use. However, the extent to which both languages are included in the same intervention activities and the manner in which this is done is unlikely to involve a “one-size fits all” solution. Instead, it may be more appropriate to tailor the integration of more than one language in therapy to the needs of individual children by considering their natural environments, including whether they normally use both languages in the same context or in separate contexts. Sometimes, this also involves consideration not only of the present context, but of future contexts, such as school entry. These are relevant considerations when the goal of therapy is to create a natural context that resembles the natural context in which the child communicates. In addition, it is possible that the selection of
intervention targets should consider the child’s language level in each language and also the kinds of things the child typically talks about in the two languages. The finding of Elin Thordardottir et al. (1997) (see Table 1) that bilingual intervention worked better for home words than school words suggests that the child’s bilingual contexts are a relevant variable influencing learning and generalization of each language. It must be kept in mind that this finding comes from a single-subject study and needs to be verified by replication. However, it might conceivably be advantageous for some children to use both languages in some activities, but to focus on one language in other therapy activities. The extent to which bilingual knowledge can boost learning may further depend on such factors as age, language level and level of metalinguistic awareness. These considerations are largely speculative at this point in time, but are worthy of close examination.

Another question is whether the language of intervention should remain the same or change over time. In Seung et al. (2006) study, intervention was initially conducted in Korean, but gradually shifted towards English only. Similarly, the recommendations of the IALP (Fredman, 2006) recommend an initial focus on the stronger language. The question arises: why the shift? Why not continue bilingual intervention after L2 is introduced? The initial focus on the stronger language is justified by these authors as the need to build a strong base in L1 before L2 can be introduced. It can also be argued that in order to introduce L2 in intervention, a sufficient base needs to exist in L2 for the child to benefit from that intervention. Because L1 is known to be vulnerable once L2 becomes a bigger part of the child’s environment (de Houwer, 2007; Gathercole & Thomas, 2009; Pearson, 2007), continued focus on L1 is necessary to prevent its attrition. With continued research in this area, language selection could eventually be tailored more efficiently to meet the needs of individual children.

8. Culturally sensitive intervention

8.1. Cultural variability in communicative styles and child rearing practices

In addition to bilingual proficiency, a qualification required of SLPs working with bilingual children is understanding of cultural variability and competency to operate in culturally diverse contexts (ASHA, 1985; CASLPA, 1997). Cultures have been shown to vary extensively in their child rearing practices relevant to communication and language development, such as in who talks to children, in what way, how children are expected to respond, whether it is believed that adults should teach children skills, whether adults should adapt their level of speaking to that of the child, and how parents and other adults interpret the intentionality of children’s early utterances (e.g. Crago, 1990; Heath, 1983; Ochs, 1988). Van Kleeck (1994) provides a useful review of these issues for SLPs who are planning intervention for children of different cultures and for counseling their parents. She points out that many of our common intervention practices, among them those that include parent involvement, are based on values, beliefs and practices of the mainstream culture. A focus on parent–child interaction as the most important form of early communication for children reflects the assumption that parents are the child’s main caregivers and communication partners. Other common intervention strategies reflect beliefs such as that children should be encouraged to talk, that adults should follow the child’s lead in interaction and adapt their communicative style to that of the child, that they should interpret early unintelligible child utterances as though they have meaning, and treat young children as equal partners in conversation (Van Kleeck, 1994). These parent–child communicative behaviors correspond to North-American middle-class mainstream culture. However, for many other cultures, these practices may range from uncomfortable to incomprehensible or even unacceptable. Several descriptive reports exist on the particular communicative behaviors characteristic of different cultural groups (see review of American cultural groups in Paul, 2007). For SLPs working with a cultural group to which they do not belong, it is helpful to consult such reports. However, as Van Kleeck warns, great care must be taken that the general knowledge gained from such reviews does not give rise to stereotyping. One way of ensuring this is to hear the family’s views by asking them to talk about their situation, their hopes and concerns in their own words. By avoiding imposing a topic, or communicating established values, the clinician can gain an understanding of what the family sees as the most important goals, and how they view instructional methods and appropriate interaction styles. As an example of cultural diversity in parents’ views and perceptions, Kummerer, Lopez-Reyna and Hughes (2007) found that the perceptions of mothers of Hispanic children enrolled in therapy differed significantly from those of the SLP in a number of respects, e.g. such that they judged the severity and nature of their child’s impairment to be less severe than it was in the view of the SLP. This illustrates a difficult situation that can arise when different cultural views lead to disagreement on the presence of a disorder or how it should be treated.
Acceptance of cultural differences should not automatically lead to the assumption that communicative situations in minority-culture homes are never in need of modification. For example, in many cultures, interactions with the child are typically assumed by the extended family, siblings and community rather than primarily by the parents. Immigrants from such cultures may find themselves living in a nuclear-family situation to which they are not accustomed. The absence of the extended family or broader community means that community contexts that would normally be a part of their culture are not present and must be compensated for in some way (Elin Thordardottir, 2009). Also, bilingual children ultimately need to learn to communicate in both language communities. Therefore, respect for and inclusion of the communicative style of their home culture should not preclude the introduction of activities pertaining to the other language community (see e.g. Inglebret, Jones & ChiXapkaid, 2008).

Although the existence of cultural variability is fairly easy to understand, the ways in which it affects clinical practice are complex and not yet well understood. Johnston and Wong (2002) examined similarities and differences in parental beliefs and practices in Western mothers and Chinese mothers living in Canada and offered several general guidelines: first, they suggest that the clinician look for functional equivalents within the cultures. As an example, Chinese mothers use book reading activities less than do Canadian mothers. Rather than recommending that they increase book reading as such, they could be encouraged to increase the use of other activities that are similar to book reading in that they allow for repetitive and predictive use of language. Looking at family albums together and storytelling are examples of such activities. The second recommendation was to use activities from within the child’s culture, even though these might not be considered language facilitating within Western culture (and hence, currently established practices). For example, a directive, more explicit teaching style was shown to have a more positive connotation within Chinese than Canadian culture. The third recommendation was to acknowledge that some strategies are unusual within any culture, but may nevertheless be appropriate. An example involved the use of sign languages with hearing children, which is a somewhat unusual addition to both Western and Chinese cultural styles. In a similar study comparing Canadian families of European and Indian heritage, Simmons and Johnston (2007) reported that the family is more central in Indian culture than in Western culture. Indian caregivers put less emphasis on children’s early independence and achievement. However, they also believed that language should be taught to children, and in that respect, they favored a more directive communicative style. Indian mothers’ expansions of their children’s utterances were infrequent. One of the strategies suggested by Simmons and Johnston was to identify contexts in which children are expected to talk, and to focus on these contexts for language facilitation. A recent study on the child rearing practices of Nigerian families proposed the use of conversational analysis for clinicians to identify cultural conversational styles (Burns & Radford, 2008). This study showed that Nigerian mothers in London used an instructional conversational style resembling classroom discourse – a style likely to be viewed negatively by SLPs trained within more mainstream Western culture.

8.2. The influence of culture on clinical procedures

Even as we make efforts to heighten our cultural sensitivity, it is essential for us to remind ourselves that the reason why bilingual children require culturally sensitive intervention is not because they are bilingual or even because they are bicultural, but indeed because they are children learning language. Language is always embedded in culture. Monolingual children are just as strongly affected by cultural factors as are bilingual children and this is reflected in the methods that we have developed to treat them. Anthropologist Elinor Ochs who studied communication patterns and language development in Samoa, wrote about the “invisible culture” (Ochs, 1988; Philips, 1983) in the context of language development practices, that is, our tendency not to see or to simply ignore the effects of the majority culture. People typically assign great importance to the role of cultural factors when dealing with cultural groups who are different from the “standard” culture. For example, when we read that children from African American cultures tend to avoid eye contact when being tested, or that children from certain aboriginal cultures are unusually silent because they have learned not to speak unless they have something important to say (cf. Paul, 2007), we readily attribute these characteristics to these children’s respective cultures (and correctly so). However, when middle-class children do maintain eye contact, when they label pictures as requested in a test situation, repeat words as asked, answer our questions to which they know we already know the answer, or launch into the communicative interactions we have set up for them in our therapies, we just as readily interpret those behaviors as reflecting the typical developmental capabilities of children. Research on cultural diversity shows that we must be careful to interpret such findings as applying to children within a particular culture.
Until cross-linguistic and cross-cultural research permits conclusions to be drawn as to which behaviors are culture-specific and which ones are present across cultures.

Existing clinical methods have largely been developed within Western middle-class cultures. Would these methods be very different if they happened to have been developed originally in some other culture? Will we see the development of radically different intervention styles or methods as bilingual (or monolingual non-English-speaking) SLPs gain increasing experience working with their respective populations across the world and start to rethink therapy procedures from scratch from the perspective of these cultures? Future research from different cultures will provide answers to these questions. Available intervention efficacy studies provide only very limited answers to these types of questions in that they have focused on language choice more so than particular intervention strategies (see Table 1). In addition, these studies focus on bilingual children having been acculturated for a significant amount of time to English (Holm & Dodd, 1999; Perozzi & Sanchez, 1992; Schoenbrodt et al., 2003; Seung et al., 2006; Elin Thordardottir et al., 1997; Tsybina & Eriks-Brophy, this issue) and involved English as the primary language of intervention. A number of strategies have been proposed as means of tailoring interventions to the needs of different cultural groups (Kayser, 1995; Kohnert, 2008; Wing et al., 2007). For example, one strategy is to include in therapy objects from the child’s home culture, and to focus therapy around themes from the child’s culture. The assumption is that this engenders familiarity which could facilitate teaching of news skills as well as promote generalization to the home. Including the home language and activities from the home culture in therapy also conveys respect and a positive affective influence (Gardner & Lambert, 1959; Gutierrez-Clellen, 1999; Lovelace & Stewart, 2009; Perozzi & Sanchez, 1992; Elin Thordardottir et al., 1997). Other, more specific attempts at modifying teaching practices or interventions have been reported. As an example, Inglebret et al. (2008) describe story book activities tailored specifically for American Indian and Alaska Native children (AI/AN), involving the use of stories as a central instructional strategy in line with cultural traditions. The study provides theoretical support for the use of this culturally appropriate activity but does not evaluate its efficacy. Another study examined the effectiveness of a robust vocabulary instruction designed specifically for African American children (Lovelace & Stewart). The study compared word learning among this group of children using mainstream Caucasian story books and African American story books using an alternating treatments design with repetition. The authors had predicted that the African American book would lead to better results because the sociocultural images and experiences depicted in the book are more similar to those of the children. The results supported the intervention overall, but no difference was found between the two story book conditions. It was concluded that it may be that the children were sufficiently familiar with mainstream culture that such an advantage did not occur. These results underscore the fact that cultural adaptations of therapy materials and strategies are likely to be helpful, but ultimately, such adapted methods also need to be tested and until they are, it cannot be assumed that they provide the desired effect. Further, these methods are all adaptations of methods that were initially developed for Western middle-class children. Ideal methods for particular groups of bilingual children might require a radical change in focus.

Another commonly advocated strategy, as seen in the position statements reviewed in this article, is to work with interpreters or other native members of the child’s culture. However, their specific role is not made clear in these recommendations nor is there research on the efficacy of therapy conducted with interpreters. Research on children with typical language development shows that the mere inclusion of native speakers is not sufficient to ensure adequate focus on that language (Restrepo et al., 2010). More research is required to define the specific role of interpreters in therapy and to document the efficacy of their participation.

More research on different cultures, different languages, and language combinations is required, and this research will, in turn, increase our understanding of those aspects of intervention that may serve as the “active ingredients” or instigators of change in intervention. The predominant focus on language of intervention may have served to reinforce the idea that language choice is the most central aspect of intervention practices with bilingual children. However, relatively little is known about the extent to which the language chosen is the most active ingredient in promoting language learning. The relative contribution of other factors such as cultural practices, learning styles, motivation and affective factors related to language status are not yet well understood. A number of studies have reported that bilingual children have enhanced cognitive abilities relative to monolingual children (Bialystok, 1998; Bialystok & Martin, 2004), particularly in metalinguistic awareness and in executive control. A bilingual advantage of this kind is not consistently found in all studies, and some studies have argued that it is not related to bilingualism as such (see e.g. Namazi & Elin Thordardottir, in press). However, this literature suggests that it may be that bilingual children approach language learning in a different way than do monolingual children and that they may develop abilities and strategies that make them benefit from different methods of instruction than monolingual children. For example, metalinguistic
awareness may be a particular strength of bilingual children which should be capitalized on in intervention methods designed for them. Another example is that bicultural children are accustomed to different teaching methods, pertaining, for example, to the level of directiveness of teaching, preference for individual or group activities, and the role of listening and observing others vs. talking.

8.3. Future directions – towards evidence-based practice for bilingual children

The literature recommends a bilingual focus in clinical intervention for bilingual children (ASHA, 1985; CASLPA, 1997; Fredman, 2006; Gutierrez-Clellen, 1999; Jordaan, 2008; Kohnert, 2008; Kayser, 1995, 2008; Elin Thordardottir, 2006, 2007). This recommendation is supported by the available, albeit limited empirical evidence, as reviewed in this article and summarized in Table 1. However, bilingual intervention is far from being the norm in clinical practice, and reports indicate that the majority of bilingual children on SLP caseloads continue to receive monolingual therapy, most frequently in the language of the SLP or the language of their school, which is likely to be their L2 (Jordaan, 2008). The lack of bilingual therapists is often cited as the main reason why bilingual treatments are not offered. Efforts to remediate this situation have included the implementation of special training for bilingual SLPs (Bedore, Pérez, & White, 2008). Jordaan (2008) goes as far as suggesting that bilingual proficiency be made part of the entrance requirements for training programs. Jordaan (2008) and Stow and Dodd (2003) discuss the ethical and human rights issues involved in the continued provision of monolingual services to bilingual children.

Much more research needs to be done to refine our methods of best practice of intervention for bilingual children. As more systematic research on intervention efficacy is undertaken, it is important as well to be aware that such research only answers the specific questions it asks. It can show that particular methods are more efficacious than no-treatment, or that one method is superior to another. But this does not guarantee that the methods tested are ideal. The search for the best possible methods must take into careful consideration the heterogeneity of bilingual children and the influence of specific linguistic, cultural, and cognitive factors on individual children. To date, research and recommendations have focused on children with sequential patterns of bilingual acquisition and a clear dominance in one language. Future research is needed on different subgroups of bilingual children, such as children who speak different combinations of languages, and children with different patterns of exposure to their languages. This includes children who acquire their languages simultaneously and children with varying levels of language dominance. We also need more research on the optimal ways of implementing bilingual services, such as whether both languages are targeted within the same session, or whether they should be targeted sequentially, in alternating fashion, or in some other way.

The limited available intervention research suggests that cross-linguistic transfer occurs for some, but not all aspects of language. This research suggests that targeting processes that underlie both languages is more likely to provide a boost to both. Given the demonstration across several languages that inefficient processing is associated with language impairment (e.g. Girbau & Schwartz, 2008; Sahlin, Reuterskjöld-Wagner, Nettelbladt, & Radeborg, 1999; Elin Thordardottir, 2008b), clinical methods focusing on enhancing the efficient use of working memory (Gillam, 1997; Ebert & Kohnert, 2009) might prove to be particularly fruitful. Fundamental research on bilingual development will continue to be important ingredient the development of clinical procedures.

As SLPs from various language and cultural backgrounds (be they bilingual or monolingual speakers of their respective languages) continue to practice in their languages, they would do well to reevaluate these methods critically in terms of whether they result in language facilitation in the language group with which they work. To achieve this, it is imperative that training programs continue to put a strong emphasis not only on clinical methods as currently practiced, but on their theoretical underpinnings including an appraisal of potential cultural biases in current practices and assumptions. This allows SLPs trained within these programs to transfer their knowledge of general principles of development and how they relate to therapy practices and, in turn, create therapy practices that similarly make optimal use of other cultural traditions to promote learning in different ways. Training programs also need to equip SLPs with the skills required to track progress and measure clinical efficacy using single-subject designs. Clinical data are an important source of evidence that can guide the formulation of research questions to be addressed in more highly controlled research studies. Several of the efficacy studies reviewed in an earlier section of this paper are case studies or single-subject studies incorporating a prospective experimental design.

Future clinical work and intervention studies should consider tracking the progress of bilingual children in both of their languages. It is noteworthy that many of the efficacy studies reviewed earlier in this paper (see Table 1) measure their treatment gains primarily in one language (usually English). Many of the arguments that have been advanced for
bilingual treatment are based on the ability of L1 to support L2. In other words, L2 proficiency is seen as the end goal to which L1 contributes. However, if L1 retention is viewed as an equally important goal and justification for bilingual therapy, this is not always stated explicitly. In order to track efficacy of treatment, we need to be clear on what the goals are. If continued growth in the L1 (or in the two L1s of a child with no clear L1) is considered a treatment goal, then efficacy data should be collected in both languages, and treatment decisions should be based on progress data from both languages. Furthermore, research is needed to guide meaningful interpretation of bilingual efficacy data. Because bilingual children’s learning is distributed over two languages, the rate of growth in clinical intervention might be different from that of monolingual children and might be different in the two languages within the same child, depending on the amount and type of exposure received in these languages. Furthermore, the definition of the ideal end goal of therapy needs to appropriately consider bilingual status. “Native” proficiency is not the same for bilingual and monolingual children (Grosjean, 1989).

Evidence-based practice offers us “a framework and a set of tools by which we can systematically improve our efforts to be better clinicians, colleagues, advocates, and investigators” (Dollaghan, 2004, p. 12). It is clear from this review that we have a long way to go in researching clinical interventions for bilingual children and in refining our methods. Ideally, intervention with bilingual children, or different subgroups of bilingual children, should not be viewed simply as a relatively minor variation on practices developed for monolingual children of a particular mainstream culture that has dominated research. Ideally, the needs of bilingual children should be researched in their own right, from the perspective of the languages and cultures of these children. This article has attempted to point out some of the important factors to consider in the continued development of intervention methods for bilingual children. In the meantime, we do have important theoretical and empirical evidence on which to base our current actions.

Appendix A. Continuing education

1. The term “bilingual intervention” is typically used in publications to refer to
   (a) the use of both languages within a therapy session
   (b) intervention given in one language by the SLP and in the other language by the parent or an interpreter
   (c) intervention in the child’s L1 (home language) only
   (d) use of the two languages in therapy in succession
   (e) all of the above.

2. Current recommendations of the position statements of Speech-Language Pathology Associations (ASHA, CASLPA, IALP) recommend, for bilingual children:
   (a) a focus on one language at a time
   (b) a primary focus on the language in which the child is or will be schooled
   (c) a primary focus on the child’s home language
   (d) inclusion of both languages with a focus on the stronger language
   (e) primary focus on the weaker language.

3. Adaptations of existing therapy techniques involve modification of aspects such as the language of intervention, materials used and teaching style. Research has shown that of these types of modifications, the most important one in terms of increasing the efficacy of the intervention for bilingual children is:
   (a) the appropriate language choice
   (b) the inclusion of culturally appropriate materials
   (c) the inclusion of a well-trained interpreter
   (d) the use of a directive teaching style
   (e) the relative extent to which each of these modifications changes the efficacy of intervention is unknown.

4. A strict separation of a bilingual child’s two languages in the home or intervention (often referred to as the one-parent-one-language strategy):
   (a) has been shown to lead to greater overall language gains than contexts that do not promote a strict separation
   (b) has been shown to reduce stress for children and parents
   (c) is representative of natural communicative contexts of bilingual populations
   (d) may be perceived as pragmatically inappropriate and unnatural
   (e) is recommended by ASHA, CALSPA and IALP.
5. Criteria for the selection of therapy targets for bilingual children:
(a) are based in principles that are fundamentally different from those used for monolingual children in that bilingual children are affected by cultural factors
(b) involve certain modifications of criteria used with monolingual children, which are the same for all bilingual children
(c) are based on the same fundamental principles as those used for monolingual children in that they consider the child’s strengths and weaknesses, current and future needs in relevant communicative contexts
(d) must in all cases include both languages
(e) can be assumed to apply to bilingual children if they have been shown to apply to monolingual children

References


