

1 for hearing loss.¹⁵ Huge strides have been made in early identification, but the task is not
2 completed until screening programs are enacted in all fifty states.

3 *Present Situation and Guidelines*

4 Despite these facts, many PCPs have very limited experience caring for children with
5 hearing loss, and probably received little to no training in deaf issues in medical school or
6 residency; the result is that a PCP's advice has often been based on misperceptions about
7 deafness and deaf people.¹⁶ The situation seems to be improving, however. A recent pilot study
8 shows that today's PCPs know sign languages have all the communicative possibilities of spoken
9 languages and many are aware of the existence of signing communities of Deaf people.¹⁷
10 Nevertheless, PCPs express a lack of confidence in discussing follow-up procedures and
11 intervention needs for newborns with hearing loss because of their lack of familiarity with deaf
12 issues.¹⁸

13 Historically, the medical profession has viewed deafness from a pathological perspective:
14 the deaf person is considered impaired and in need of a cure.¹⁹ Today the stance of the medical
15 profession as evidenced through the American Academy of Pediatrics Policy Guidelines is more
16 sophisticated, yet it falls short of being truly adequate.

17 There are several published policy statements, all recommending early screening; early
18 intervention; close and continued monitoring of the child's communicative, language, motor,
19 cognitive, and social-emotional development; and protection of infant and family rights through
20 informed choice, decision-making, and consent.²⁰ These recommendations frequently concern
21 almost exclusively audiological input via habilitation and vocal output, although more recent
22 policy statements emphasize cognitive language development and the importance of nurturing
23 and communicating with the child regardless of modality.

1 These policies consistently state the importance of family decision-making regarding
2 raising the child orally versus raising the child with a sign language, because the success of early
3 hearing detection and intervention (EHDI) programs depends on families working in partnership
4 with professionals as a well-coordinated team.²¹ The recommendation throughout is that families
5 receive unbiased information so they can make an informed decision, and then PCPs act in
6 accordance with that decision. There are two major problems with this recommendation. One is
7 that information given to the families is often inaccurate, incomplete, and/or equivocal. Sign is
8 presented as the last resort, to be used when oral approaches have failed, and parents are
9 incorrectly told that sign can be turned to at any age because it is so “easy.”²² Even the best
10 websites offer less than optimal information. The National Institutes of Health, for example, has
11 a website explaining what American Sign Language is and how children need to learn language
12 early, but it stops short of recommending that every deaf child be exposed to sign language in
13 particular from birth on.²³ Their language is typical of American websites and it contrasts sharply
14 with that of the websites of many other countries, such as that of DEAFSA, formerly known as
15 the South African National Council for the Deaf, which says, “Sign Language is the first and
16 natural language of the Deaf person.”²⁴ Such equivocation on American websites cannot
17 compete with the pressure for oral deaf education to the exclusion of sign language, which is
18 escalating in this era of Universal Newborn Hearing Screening and cochlear implantation (CI).²⁵
19 The second problem is that current research in cognitive science, linguistics, psychology, and
20 education makes it clear that these decisions are critical to the physical and mental wellbeing of
21 the deaf child; thus it is a medical responsibility to advise the parents properly, just as a PCP or
22 other physician would do in the case of a diagnosis of diabetes or any other medical condition.

1 Being equivocal is not being unbiased; it is abnegating responsibility, with detrimental results on
2 the decision-making process for the parents.

3 Success in meeting the language and educational needs of American deaf children thus
4 far has been limited; according to the Joint Committee on Infant Hearing (JCIH), this is due to
5 continued late detection of hearing loss (often not before 30 months of age), a shortage of skilled
6 professionals to help in habilitation, and lack of funding for programs and assistive technology,
7 among other such matters.²⁶ However, even children whose hearing loss is detected early have a
8 high rate of communicative and educational problems.²⁷ The general tendency in America of
9 using only one modality of language with deaf children isn't adequate.

10 Every indicator about EHDI points to one conclusion: early intervention is critical for
11 language development²⁸ although it may have little effect on speech production.²⁹ Thus we need
12 good advice to families immediately upon detection of hearing loss; they must be told the
13 advantages of both sign language and oral language exposure.

14 Moving Toward New Guidelines

15 *Advantages of Sign Language Acquisition*

16 For language development, deaf children should be exposed to good language models in
17 a signed language as soon as deafness is detected. There is no advantage to delaying exposure to
18 sign language, and language development research has shown that early exposure to sign
19 language reduces the risks of linguistic deprivation, which is frequently associated with cognitive
20 impairment and psychosocial isolation.³⁰ In the next section we will explain why deaf children
21 need exposure to speech, as well, but here we concentrate on sign language.

22 While children easily acquire any accessible natural human languages (spoken or signed)
23 to which they are regularly exposed,³¹ first language acquisition must take place before the

1 critical period, which may be as early as five years old, or they may well have difficulties
2 becoming fluent in any language – they will be linguistically deprived.³² Developmental
3 psychology research has shown correlation between reduced language abilities and social
4 difficulties. Language development is critical to memory organization, mastery of cognitive
5 skills such as numeracy and literacy,³³ and many other aspects of cognitive development.³⁴ High
6 proficiency in a language permits the child to engage in social interactions with family and peers,
7 and cognitive development is enhanced from environmental stimulation; successful social
8 interaction calls for higher-order cognitive processing called executive functioning (EF), and EF
9 is significantly positively associated with language ability.³⁵ It is, therefore, critical that the deaf
10 child become a fluent signer. Further, in the absence of a signing environment, deaf children
11 tend to develop a gestural system of communication with those around them, anyway;³⁶ it is far
12 better in terms of both cognitive development and communicative range to give them bona fide
13 language. This recommendation is further supported by a neuroimaging study that reported
14 greater activation in language-specialized regions of the brain in signers when they viewed sign
15 language as opposed to non-linguistic gestures.³⁷ Finally, language is language, regardless of the
16 modality; research shows that facility with one language helps in acquiring another language –
17 integration and differentiation processes within a linguistic system and across different linguistic
18 systems aid language development in general,³⁸ thus learning sign can help a child master a
19 spoken language.

20 Even for the child who has auditory aids (hearing aids or CI) and seems to be doing well
21 with them, early learning of sign language, in particular, offers additional benefits. First, young
22 hearing children develop language through not only auditory but visual cues as well; the same is
23 true for young deaf children. Developmental neuroscience research has shown that rapid synaptic

1 formation for lower-order somatosensory and visual cortices, which happens during the first four
2 months and begins to level off after eight months, paves the way for higher order association
3 cortices.³⁹ Deaf infants should benefit from early sign language exposure since the strengthening
4 of sensorimotor pathways involved in sign language development (i.e. forming linguistic
5 handshapes and movements to convey meanings of words or sentences) may facilitate early
6 development of spatial attention and receptive understanding of the communication modality that
7 is visual in nature. Infant spatial attention has been shown to play a crucial role in early language
8 development, whether spoken or sign, as well as to promote healthy parent-infant attachment.⁴⁰
9 A deaf infant's lack of or reduced visual communication access during the first 4-12 months
10 risks delayed language development, cognitive delays, and the subsequent social and emotional
11 effects of these deficits.⁴¹ With visual attention and language mapping in place, the deaf child's
12 brain is likely to be better equipped to acquire spoken language through auditory communication
13 with assistive technologies and effectively switch between a signed language and a spoken
14 language.

15 Second, expressive language milestones are achieved earlier in gesture-based
16 communication systems than spoken language.⁴² Visual clues can help promote spoken language
17 production: hearing children who are sighted produce labials such as the [b] in *ball* before other
18 sounds, where the movement of the lips is visually apparent, but blind children do not. Similar
19 findings hold for a variety of other sounds.⁴³ Since sign language experience helps promote
20 development of neural pathways associated with visual attention abilities, sign language
21 experience should prepare the deaf child to notice visual cues helpful in producing speech.

22 Findings such as the ones cited in the prior two paragraphs are likely the reason for the
23 growing number of sign language classes for hearing infants and their hearing parents. It would

1 be absurd to suspect that positive effects of learning sign language on early cognitive
2 development and language acquisition should be limited to only hearing infants of hearing
3 adults. It is both ironic and detrimental that signs are often denied to deaf infants, who need
4 every advantage in self-expression given the amount of frustration they can face in early
5 language encounters.⁴⁴

6 Third, sign language acquisition has educational benefits. Many studies have shown that
7 deaf children who sign, regardless of other factors (such as whether their parents are deaf or
8 hearing and whether or not they have assistive hearing devices and/or oral training), achieve
9 better in school than those who don't sign.⁴⁵ A recent study concludes that ASL skill above other
10 possible factors correlates strongly with reading achievement, suggesting that the linguistic basis
11 of reading can be bimodal as well as bilingual.⁴⁶

12 As for cognitive benefits associated with sign language experience, signers are faster and
13 more accurate in mental rotation tasks⁴⁷ as well as better at discriminating unfamiliar faces than
14 nonsigners.⁴⁸ Research also showed that signers have better visual-spatial cognition and
15 movement perception than nonsigners.⁴⁹

16 *Speech input: advantages and limitations*

17 If the deaf child has specific characteristics which correlate strongly with the success of
18 hearing aid use or of CI, then relevant auditory habilitation can benefit the child's developmental
19 plan, but it must not be to the exclusion of sign language.

20 There are important benefits for the deaf child of exposure to speech. First, research
21 points to a strong correlation between a deaf person's phonological awareness and academic
22 achievement (in particular, reading skills);⁵⁰ although one is not required to access sound to have
23 such awareness (given that phonological awareness is of rules, not of sounds).⁵¹ Second, the

1 ability to function communicatively, even to a minimal extent, in a hearing environment may
2 expand career and personal opportunities. The absence of such minimal ability could even leave
3 the deaf individual defenseless in emergencies.

4 Speech alone, however, is not sufficient language input for the deaf child. Although CI is
5 available for children with bilateral severe to profound hearing loss that is unresponsive to
6 amplification and it typically shows strong success with children implanted before 18 months,⁵²
7 individual variation is pervasive.⁵³ For instance, research findings reveal that successful CI
8 outcomes best correlate with higher socioeconomic status (SES) and parental speech
9 characteristics, specifically mean-length of utterance.⁵⁴ In contrast, a persistent 21% of implanted
10 children receive no linguistic benefits from CIs (instead perceiving only noise).⁵⁵ For the 79% of
11 implanted children who range from receiving minimal to substantial linguistic input from CI
12 (that is, from being able to recognize alarm bells and fire engine sirens but not speech sounds, to
13 being able to use the telephone), the device still neither restores nor effects normal hearing.
14 Even a skilled CI recipient gets no benefit when the implant malfunctions or when the external
15 apparatus must be removed, such as for sports events or sleeping (which can be interrupted by an
16 emergency requiring communication). Thus, their communication abilities need to be
17 supplemented by contextual clues and speechreading, which makes language a constant task
18 requiring focused attention and substantial effort. All these children need and deserve a
19 language they can use with ease, just as hearing children do.

20 Further, there is a growing body of evidence that CIs as a technology present no
21 advantage to the deaf child over hearing aids (HA) and other forms of assistance with respect to
22 the development of cognitive functions such as EF abilities; CI and HA children's EF is not as
23 well developed as hearing children's.⁵⁶ Although the authors did not report measures of language

1 proficiency in these deaf children, who have hearing parents, it is possible that these deaf
2 children have reduced language proficiency relative to the hearing counterparts and this reduced
3 proficiency may have had some effect on EF performance in the study.⁵⁷ Another study on deaf
4 children with CI reported positive correlation between increased implant use and EF ability
5 (behavioral inhibition).⁵⁸ Here, we contend that it is not the CI technology that provides the child
6 with better EF abilities. Rather, it is the intensive habilitation and active parental involvement
7 that provide the desirable outcomes for successful CIs.⁵⁹ The longer that the child uses the
8 implant and receives intensive habilitation support from experienced specialists as well as
9 parental involvement at home, the more the child is able to attain higher proficiency in the
10 language that he/she is exposed to. Such outcomes are commonly observed in families of higher
11 SES.⁶⁰

12 Renowned author and neurologist Oliver Sacks nicely summarizes that language is the
13 glue that binds us to others and allows us to "enter fully into our human estate and culture."⁶¹
14 One would need to be proficient in both expressive and receptive language or have access to
15 appropriate accommodation to be able to fully participate in a community. An HA or CI user
16 may be proficient in a spoken language and yet struggle in listening and understanding the
17 teacher and other students in a classroom. The cognitive demand, even among school-aged
18 children with mild hearing loss, can result in fatigue, whereby the child struggles to cope with
19 the overload and is unable to sustain attention and process information equivalently with hearing
20 peers, with detrimental effects on learning and often on behavior in the classroom.⁶² Moreover,
21 children implanted early initially show great language gains that are not maintained; soon
22 implanted children fall behind their hearing peers.⁶³ A common danger is that a teacher facing a
23 child with assistive technology who has conversational competence assumes that the child is

1 fully able to receive and process all academic materials through that language; instead, the child
2 may be unable to cope with the abstractions, technicalities, and complexities involved in
3 academic language and classroom discussions, thus the risk of underachievement is high.⁶⁴
4 Further, studies of the cognitive development of deaf children in Australia and America show
5 that those with CIs perform no better than those with ordinary HAs, rather, language ability
6 (typically in sign) is consistently the key to better cognitive development.⁶⁵

7 In sum, the linguistic needs of the deaf child call for language exposure in both
8 modalities.

9 *Advantages of Bilingualism*

10 Bilingualism is an advantage to typically developing children; likewise, it is an advantage
11 to children with permanent hearing loss, beyond the points raised earlier. In particular, sign
12 language exposure does not hinder spoken language development nor any other cognitive
13 development; to the contrary, many cognitive, social, and educational benefits follow from
14 bilingualism.⁶⁶ In fact, in a Dutch longitudinal study, both the sign language and the spoken
15 language of bilingual deaf children displayed more syntactic complexity than that of their
16 monolingual peers.⁶⁷

17 Bilingual research with hearing speakers has consistently shown that proficiency in two
18 or more languages results in better mental flexibility and cognitive control that persists through
19 late adulthood and may delay the onset of dementia by as much as four years.⁶⁸ Bilingualism in
20 both hearing and deaf people leads to more creative thinking, particularly in problem solving,⁶⁹
21 and to more creative verbal processes.⁷⁰ Due to the beneficial effect of bilingualism on the
22 frontal lobe, hearing bilingual children perform better than their monolingual peers in tests of
23 spatial ability and general reasoning.⁷¹ Similarly, deaf adult bilinguals outperformed monolingual

1 yet wholly adopted the bilingual/bicultural approach have such schools (often the object of
2 research), including The Netherlands,⁸⁷ Norway,⁸⁸ and Spain.⁸⁹ Comparative research on deaf
3 education within Europe finds the bilingual/bicultural programs to produce superior language,
4 literacy, and social skills and such research is being used to advance the cause in additional
5 countries.⁹⁰ Bilingual education programs for deaf children are springing up all over the world.⁹¹

6 To this date there is no comprehensive study of the various bilingual/bicultural education
7 programs for the deaf in any country, although one is presently being undertaken in Europe.⁹²
8 Bilingual/bicultural educational programs differ in pedagogical approach; all stress the
9 importance of sign as a language for exchange of academic ideas, but some support voicing of
10 spoken language, as well, while others pair sign with the written language of the country.⁹³
11 Regardless of approaches, bilingualism in deaf education shows more promise than education in
12 a single modality for children with and without CI⁹⁴ and is definitely the wave of the future.
13 Indeed, we have an international megatrend toward bilingualism for deaf children, among the
14 strongest scientific factors in its favor being research in sign linguistics and bilingualism, and
15 among the strongest hindrances being the old view of deafness as a medical condition with a
16 technological solution.⁹⁵ The medical profession in America now has the information to lead the
17 way in helping correct that misconception in our country and promote the linguistic, educational,
18 social, and personal well-being of deaf children by providing unbiased information and
19 appropriate contacts; and if it does so, the educational profession and media may follow suit.

20 *Recommendations*

21 Given the risks of not raising the deaf child with the opportunity to be bilingual and the
22 benefits of the alternative, the ethical principles of non-maleficence and beneficence would argue

1 that PCPs advise the families of deaf children accordingly.⁹⁶ The alternative can create disability
2 where none need be.⁹⁷

3 If deaf children are raised with good linguistic models in both a sign and a spoken
4 language, they will have:

- 5 1. the assurance of acquiring language and thus being able to participate in all those
6 things we call “humanity”
- 7 2. at least one language in which to feel at ease when communicating: one language
8 that does not place undue cognitive load resulting from constant special effort
- 9 3. the benefit of exposure to two cultures and expanded social opportunities
- 10 4. maximal advantage of visual clues in learning language skills, both receptive and
11 expressive
- 12 5. the potential to do better at school and to develop superior visuospatial cognition
- 13 6. the benefits of bilingualism for higher-order cognition and mental flexibility

14 The ideal situation is for families (parents and siblings alike) to begin learning sign
15 language as soon as they find out their child has a hearing loss. It is not sufficient to learn sign
16 language along with the child; the families should be out in front. But even if the families are
17 unwilling or unable to do this, the child must be exposed regularly and frequently to good
18 signing models from birth on.

19

20

Checklist of What the PCP Can Do

- 21 a. Ensure every newborn completes hearing screening prior to discharge from
22 nursery
- 23 b. Ensure that follow up screening and hearing testing be carried out for children
24 who do not pass the initial screening
- 25 c. Identify red flags/warning signs
26 i. Unresponsive to sound

1 For both families and professionals:

2 <http://www.nidcd.nih.gov/>

3 <http://www.cdc.gov/ncbddd/ehdi/FAQ/questionsUNHS.htm#programs>

4 <http://www.asha.org/>

5 For introduction to sign:

6 <http://www.lifeprint.com/>

7 <http://www.aslpro.com/>

8 <http://www.handspeak.com/>

9 <http://www.funbrain.com/signs/index.html>

10 <http://www.asl.ms/>

11

1 REFERENCES

2 1. D. Moores, Educating the Deaf: Psychology, Principles, and Practices (Boston:
3 Houghton Mifflin, 2001).

4 2. E. Kurtzer-White and D. Luterman, "Families and Children with Hearing Loss: Grief
5 and Coping," Mental Retardation and Developmental Disabilities Research Review 9, no. 6.
6 (2003): 232-235; A. Steinberg et al., "Parental Narratives of Genetic Testing for Hearing Loss:
7 Audiologic Implications for Clinical Work with Children and Families," American Journal of
8 Audiology 16 (June 2007): 57-67.

9 3. P. Kushalnagar et al., "Intelligence, Parental Depression, and Behavior Adaptability in
10 Deaf Children Being Considered for Cochlear Implantation," Journal of Deaf Studies and Deaf
11 Education 12 (2007): 335-49.

12 4. Kurtzer-White and Luterman, "Families and Children with Hearing Loss: Grief and
13 Coping," see note 2 above.

14 5. D. Freeman, "The Deaf Child: Controversy over Teaching Methods," Journal of Child
15 Psychology and Psychiatry 17, no. 3 (July 1976): 229-232; J. Christiansen and I. Leigh, Cochlear
16 Implants in Children: Ethics and Choices (Washington, D.C.: Gallaudet University Press, 2005);
17 H. Lane, The Mask of Benevolence: Disabling the Deaf Community (New York: Vintage, 1992);
18 C. Padden and T. Humphries, Deaf in America: Voices from a Culture (Cambridge, MA:
19 Harvard University Press, 1988); R. Winefield, Never the Twain Shall Meet: Bell, Gallaudet, and
20 the Communication Debate (Washington, D.C.: Gallaudet University Press, 1987).

21 6. A. Porter and S. Edirippulige, "Parents of Deaf Children Seeking Hearing Loss-related
22 Information on the Internet: The Australian Experience," Journal of Deaf Studies and Deaf
23 Education 12, no. 4 (Fall 2007): 518-529.

1 7. S. Gregory, Deaf Children and Their Families (New York: George Allen & Unwin,
2 1995); D. Luterman, Counseling Parents of Hearing-Impaired Children (Boston: Little, Brown &
3 Co., 1979).

4 8. The National Institute of Deafness and Other Communication Disorders, National
5 Institutes of Health as reported in the April 1989 National Strategic Research Plan, reported on in
6 multiple websites, such as the following, accessed May 5, 2008:

7 <http://www.hitec.com/Resource/Hearingfaqs.asp>; T. Finitzo, K. Albright, and J. O'Neal, "The
8 Newborn with Hearing Loss: Detection in the Nursery," Pediatrics 102 (1998): 1452-1459.

9 9. Department of Health and Human Services, Centers for Disease Control and
10 Prevention, "Early Hearing Detection & Intervention Program," Accessed May 5, 2008:
11 <http://www.cdc.gov/NCBDDD/ehdi/default.htm>; A.R. Kemper and S.M. Downs, "A Cost-
12 effectiveness Analysis of Newborn Hearing Screening Strategies," Archives of Pediatric and
13 Adolescent Medicine 154, no. 5 (May 2000): 484-488; M. Cunningham and E.O. Cox, "Hearing
14 Assessment in Infants and Children: Recommendations Beyond Neonatal Screening," Pediatrics
15 111, no. 2 (February 2003): 436-440.

16 10. Task Force on Newborn and Infant Hearing, "Newborn and Infant Hearing Loss:
17 Detection and Intervention," Pediatrics 103, no. 2 (February 1999): 527-530.

18 11. Department of Health and Human Services, Centers for Disease Control and
19 Prevention, "Early Hearing Detection & Intervention Program," see note 9 above.

20 12. The National Institute of Deafness and Other Communication Disorders, National
21 Institutes of Health as reported in the April 1989 National Strategic Research Plan, see note 8
22 above; U.S. National Library of Medicine, "Genetic Home Reference: Nonsyndromic Deafness,"
23 Accessed May 20, 2008: <http://ghr.nlm.nih.gov/condition=nonsyndromicdeafness>

- 1 13. K. Chu et al., "Antecedents of Newborn Hearing Loss," Obstetrics & Gynecology
2 101 (2003): 584-588.
- 3 14. Department of Health and Human Services, Centers for Disease Control and
4 Prevention, "Early Hearing Detection & Intervention Program," see note 9 above; National
5 Institutes of Health, NIH Consensus Statement: Early Identification of Hearing-Impairment in
6 Infants and Young Children 11 (1993): 1-24; American Speech-Language-Hearing Association,
7 "Status of State Early Hearing Detection and Intervention (EHDI) Laws," Accessed May 5,
8 2008: http://www.asha.org/about/legislation-advocacy/state/bill_status.htm.
- 9 15. Early Hearing Detection and Intervention Information & Resource Center, National
10 Center for Hearing Assessment & Management, "2004 State EHDI Survey," Accessed June 10,
11 2008: <http://www.infanthearing.org/survey/2004statesurvey/index.html>
- 12 16. E. Ralston, P. Zazove, and D.W. Gorenflo, "Physicians' Attitudes and Beliefs about
13 Deaf Patients," Journal of American Board in Family Practices 9, no. 3 (May-Jun 1996): 167-
14 173.
- 15 17. J. Staley and J. Hecht, "Physicians' Attitudes about Issues Affecting Deaf Children,"
16 (Early Hearing Detection Intervention meeting, 2005), Powerpoint Available at:
17 http://74.125.93.132/search?q=cache:84AB_PQo3PkJ:www.infanthearing.org/meeting/ehdi2005
18 [/presentations/01--](http://74.125.93.132/search?q=cache:84AB_PQo3PkJ:www.infanthearing.org/meeting/ehdi2005)
19 [Hecht_EHDI2005.ppt+Physicians%27+Attitudes+about+Issues+Affecting+Deaf+Children&cd=](http://74.125.93.132/search?q=cache:84AB_PQo3PkJ:www.infanthearing.org/meeting/ehdi2005)
20 [1&hl=en&ct=clnk&gl=us&client=firefox-a](http://74.125.93.132/search?q=cache:84AB_PQo3PkJ:www.infanthearing.org/meeting/ehdi2005)
- 21 18. M.P. Moeller, K.R. White, and L. Shisler, "Primary Care Physicians' Knowledge,
22 Attitudes, and Practices Related to Newborn Hearing Screening," Pediatrics 118, no. 4 (October
23 2006): 1357-1370, Available at: <http://pediatrics.aappublications.org/cgi/content/full/118/4/1357>

- 1 19. H.E. Meader and P. Zazove, "Health Care Interactions with Deaf Culture," Journal of
2 the American Board of Family Practice 18, no. 3 (2005): 218-222; Staley and Hecht, "Physicians'
3 Attitudes about Issues Affecting Deaf Children," see note 17 above.
- 4 20. Early Hearing Detection and Intervention Information & Resource Center, National
5 Center for Hearing Assessment & Management, "2004 State EHDI Survey," see note 15 above;
6 Joint Committee on Infant Hearing, "Year 2007 Position Statement: Principles and Guidelines
7 for Early Hearing Detection and Intervention Programs," Pediatrics 120, no. 4 (2007): 898-921;
8 Department of Health and Human Services, Centers for Disease Control and Prevention, Early
9 Hearing Detection & Intervention (EHDI) Program, "Organizational Recommendations and
10 Screening Guidelines," Accessed September 5, 2009:
11 <http://www.cdc.gov/NCBDDD/ehdi/ddscreen.htm>.
- 12 21. Joint Committee on Infant Hearing, "Year 2007 Position Statement: Principles and
13 Guidelines for Early Hearing Detection and Intervention Programs," see note 20 above.
- 14 22. O. Wrigley, The Politics of Deafness: Family Handbook on Adult Hearing Loss
15 (Washington, D.C.: Gallaudet University Press, 1997).
- 16 23. <http://www.hear.com/nih-asl.shtml>
- 17 24. <http://www.deafsa.co.za/html/aboutdeafsa.htm>
- 18 25. <http://www.oraldeafed.org/>; <http://www.clarkeschool.org/>;
19 <http://www.cid.edu/images/deafeducation/overview.htm>; <http://www.entcolumbia.org/ode.html>
- 20 26. Winefield, Never the Twain Shall Meet: Bell, Gallaudet, and the Communication
21 Debate, see note 5 above.

1 27. M. Marschark, C. Rhoten, and M. Fabich, "Effects of Cochlear Implants on
2 Children's Reading and Academic Achievement," Journal of Deaf Studies and Deaf Education
3 12, no. 3 (2007): 269-282.

4 28. Department of Health and Human Services, Centers for Disease Control and
5 Prevention, "Early Hearing Detection & Intervention Program," see note 9 above; Joint
6 Committee on Infant Hearing, "Year 2000 Position Statement: Principles and Guidelines for
7 Early Hearing Detection and Intervention Programs," Pediatrics 106, no. 4 (2000): 798-817; H.
8 Nelson, C. Bougatsos, and P. Nygren, "Universal Newborn Hearing Screening: Systematic
9 Review to Update the 2001 U.S. Preventive Services Task Force Recommendation" (July 2008),
10 Accessed October 2, 2008: <http://www.ahrq.gov/clinic/uspstf08/newbornhear/newbheares.pdf>

11 29. C.R. Kennedy et al., "Language Ability after Early Detection of Permanent
12 Childhood Hearing Impairment," New England Journal of Medicine 354, no. 20 (May 18, 2006):
13 2131-2141, Available at:
14 [http://www.psychology.soton.ac.uk/psyweb/staff/myprofile/mypublications/publications/jsteven/
15 Kennedy%20NEJM%202006%20v354p2131.pdf](http://www.psychology.soton.ac.uk/psyweb/staff/myprofile/mypublications/publications/jsteven/Kennedy%20NEJM%202006%20v354p2131.pdf)

16 30. B. Schick, M. Marschark, and P. Spencer, Advances in the Sign Language
17 Development of Deaf Children (New York: Oxford University Press, 2006).

18 31. N. Chomsky, Knowledge of Language (New York: Praeger, 1986); S. Pinker, The
19 Language Instinct (New York: William Morrow & Co., 1994); W. Sandler and D. Lillo-Martin,
20 Sign Language and Linguistic Universals (Cambridge: Cambridge University Press, 2006); C.
21 Yang, The Infinite Gift: How Children Learn and Unlearn all the Languages of the World (New
22 York: Scribner, 2006); E. Lenneberg, Biological Foundations of Language (New York: Wiley,
23 1967).

1 32. Lenneberg, Biological Foundations of Language, see note 31 above; E. Lenneberg,
2 "The Capacity of Language Acquisition," in The Structure of Language, eds. J. Fodor and J. Katz
3 (Englewood Cliffs, NJ: Prentice-Hall Inc, 1964): 579-603; R. Mayberry, "The Critical Period for
4 Language Acquisition and the Deaf Child's Language Comprehension: A Psycholinguistic
5 Approach," Bulletin d'Audiophonologie: Annales Scientifiques de L'Université de Franche-
6 Comte 15 (1998): 349-358; R. Mayberry, "The Importance of Childhood to Language
7 Acquisition: Evidence from American Sign Language," in The Development of Speech
8 Perception: The Transition from Speech Sounds to Words, eds. J. Goodman and H. Nusbaum
9 (Cambridge, MA: MIT Press, 1994): 57-90.

10 33. J. Ronnberg, "Working Memory, Neuroscience, and Language: Evidence from Deaf
11 and Hard-of-hearing Individuals," in The Handbook of Deaf Studies, Language, and Education,
12 eds. M. Marschark and P. Spencer (Oxford: Oxford University Press, 2003): 478-490; M.
13 MacSweeney, "Cognition and Deafness," in Issues in Deaf Education, eds. S. Gregory et al.
14 (London: David Fulton Publishers, 1998): 20-27.

15 34. C. Courtin, "The Impact of Sign Language on the Cognitive Development of Deaf
16 Children: The Case of Theories of Mind," Journal of Deaf Studies and Deaf Education 5 (2000):
17 266-276; C. Courtin and A.-M. Melot, "Metacognitive Development of Deaf Children: Lessons
18 from the Appearance – Reality and False Belief Tasks," Developmental Science 8 (2005): 16-25;
19 C. Courtin, A.-M. Melot, and D. Corroyer, "Achieving Efficient Learning: Why Theory of Mind
20 is Essential for Deaf Children...and Their Teachers," in Deaf Cognition, Foundations and
21 Outcomes, eds. M. Marschark and P. Hauser (New York: Oxford University Press, 2008): 102-
22 130; G. Morgan and J. Kegl, "Nicaraguan Sign Language and Theory of Mind: The Issue of
23 Critical Period and Abilities," Journal of Child Psychology and Psychiatry 47 (2006): 811–819;

1 E. Rimmel and K. Peters, "Theory of Mind and Language in Children with Cochlear Implants,"
2 Journal of Deaf Studies and Deaf Education 14, no 2 (2009): 218-236; P. Russel et al., "The
3 Development of Theory of Mind in Deaf Children," Journal of Child Psychology, Psychiatry, and
4 Allied Disciplines 39 (1998): 903-910; B. Schick, P. de Villiers, J. de Villiers, and R. Hoffmeister,
5 "Language and Theory of Mind: A Study of Deaf Children," Child Development 78 (2007):
6 376–396; C. Courtin, "A Critical Period for the Acquisition of the Theory of Mind? Clues from
7 Homesigners," in Deaf Around the World: The Impact of Language, eds. G. Mathur and D.J.
8 Napoli (Oxford: Oxford University Press, in press).

9 35. B. Figueras, L. Edwards, and D. Langdon, "Executive Function and Language in
10 Deaf Children," Journal of Deaf Studies and Deaf Education 13 (2008): 362-377; M. Marschark
11 and P. Hauser, eds. Deaf Cognition, Foundations and Outcomes (New York: Oxford University
12 Press, 2008).

13 36. S. Goldin-Meadow, The Resilience of Language: What Gesture Creation in Deaf
14 Children can Tell us about How all Children Learn Language (New York: Psychology Press, a
15 subsidiary of Taylor & Francis, 2003).

16 37. M. MacSweeney et al., "Dissociating Linguistic and Non-linguistic Gestural
17 Communication in the Brain," Neuroimage 22 (2004): 1605-1618.

18 38. R. Tracy, Child Languages in Contact: Bilingual Language Acquisition
19 (English/German) in Early Childhood, Habilitationsschrift, University of Tübingen, 1994/5; C.
20 Plaza Pust, Linguistic Theory and Adult Second Language Acquisition: On the Relation between
21 the Lexicon and the Syntax (Frankfurt am Main: Peter Lang, 2000).

22 39. N. Gogtay et al., "Dynamic Mapping of Human Cortical Development During
23 Childhood through Early Adulthood," Proceedings of the National Academy of Sciences of the

1 USA 101 (2001): 8174-8179; P. Huttenlocher, "Morphometric Study of Human Cerebral Cortex
2 Development," Neuropsychologia 28, no. 6 (1990): 517-527.

3 40. D. Baldwin, "Understanding the Link between Joint Attention and Language," in
4 Joint Attention: Its Origin and Role in Language Development, eds. C. Moore and P. Dunham
5 (Hillsdale, NJ: Lawrence Erlbaum Associates, 1995).

6 41. E. Newport and R. Meier, "The Acquisition of American Sign Language," in The
7 Crosslinguistic Study of Language Acquisition Vol. 1, ed. D. Slobin (Hillsdale, NJ: Lawrence
8 Erlbaum Associates, 1985).

9 42. Newport and Meier, "The Acquisition of American Sign Language," see note 41
10 above; R. Meier, "Language Acquisition by Deaf Children," American Scientist 79 (1991): 60-
11 70; L. Acredolo and S. Goodwyn, "Symbolic Gesturing in Language Development: A Case
12 Study," Human Development 59 (1985): 450-466; L. Acredolo and S. Goodwyn, "Symbolic
13 Gesturing in Normal Infants," Child Development 59 (1988): 450-466; L. Acredolo and S.
14 Goodwyn, "Sign Language in Babies: The Significance of Symbolic Gesturing for
15 Understanding Language Development," in Annals of Child Development Vol. 7, ed. R. Vasta
16 (London: Jessica Kingsley, 1990): 1-42; S. Goodwyn and L. Acredolo, "Symbolic Gesture
17 versus Word: Is there a Modality Advantage for Onset of Symbol Use?" Child Development 64,
18 no. 3 (1993): 688-701; R. Meier and E. Newport, "Out of the Mouths of Babies: On a Possible
19 Sign Advantage in Language Acquisition," Language 66, no. 1 (1990):1-23.

20 43. M. Vihman, Phonological Development: The Origins of Language in the Child
21 (Oxford: Basil Blackwell, 1996).

22 44. Gregory, Deaf Children and Their Families, see note 7 above.

1 45. R. Wilbur, "How to Prevent Educational Failure," in Signs & Voices: Deaf Culture,
2 Identity, Language and Arts, eds. K. Lindgren, D. DeLuca, and D.J. Napoli DJ (Washington,
3 D.C.: Gallaudet University Press, 2008): 117-138; S. Allen, D. DeLuca, and D.J. Napoli,
4 "Society Responsibility and Linguistic Rights: The Case of Deaf Children," Journal of Research
5 in Education 17 (2007): 41-53; B. Schick, "The Development of American Sign Language and
6 Manually Coded English Systems," in The Handbook of Deaf Studies, Language, and Education,
7 eds. M. Marschark and P. Spencer (Oxford: Oxford University Press, 2003): 219-231; P. Paul,
8 "Processes and Components of Reading," in The Handbook of Deaf Studies, Language, and
9 Education, eds. M. Marschark and P. Spencer (Oxford: Oxford University Press, 2003): 97-109;
10 C. Mayer and T. Akamatsu, "Bilingualism and Literacy," in The Handbook of Deaf Studies,
11 Language, and Education, eds. M. Marschark and P. Spencer (Oxford: Oxford University Press,
12 2003): 136-150; C. Padden and C. Ramsey, "American Sign Language and Reading Ability in
13 Deaf Children," in Language Acquisition by Eye, eds. C. Chamberlain, J. Morford, and R.
14 Mayberry (Mahwah, NJ: Lawrence Erlbaum Associates, 2000): 165-189; M. Strong and P. Prinz,
15 "Is American Sign Language Skill Related to English Literacy?" in Language Acquisition by
16 Eye, eds. C. Chamberlain, J. Morford, and R. Mayberry (Mahwah, NJ: Lawrence Erlbaum
17 Associates, 2000): 131-142.

18 46. C. Chamberlain and R. Mayberry, "American Sign Language Syntactic and Narrative
19 Comprehension in Skilled and Less Skilled Readers: Bilingual and Bimodal Evidence for the
20 Linguistic Basis of Reading," Applied Psycholinguistics 29, no. 3 (2008): 367-388.

21 47. K. Emmorey, S. Kosslyn, and U. Bellugi, "Visual Imagery and Visual-spatial
22 Language: Enhanced Imagery Abilities in Deaf and Hearing ASL Signers," Cognition 46 (1993):

1 139-181; K. Emmorey, E. Klima, and G. Hickok, "Mental Rotation within Linguistic and Non-
2 linguistic Domains in Users of American Sign Language," Cognition 68, no. 3 (1998): 221-246.

3 48. J. Bettger, K. Emmorey, S. McCullough, and U. Bellugi, "Enhanced Facial
4 Discrimination: Effects of Experience with American Sign Language," Journal of Deaf Studies
5 and Deaf Education 2, no. 4 (1997): 223-233.

6 49. K. Emmorey, "The Impact of Sign Language Use on Visual-spatial Cognition," in
7 Psychological Perspectives on Deafness, eds. M. Marschark and D. Clark D (Hillsdale, NJ:
8 Lawrence Erlbaum, 1998): 19-52.

9 50. V. Hanson, D. Shankweiler, and W. Fischer, "Determinants of Spelling Ability in
10 Deaf and Hearing Adults: Access to Linguistic Structure," Cognition 14 (1983): 323-344; V.
11 Hanson and D. Wilkenfeld, "Morphophonology and Lexical Organization in Deaf Readers,"
12 Language and Speech 23, no. 3 (1985): 269-280; V. Hanson, Phonology and Reading: Evidence
13 from Profoundly Deaf Readers (Ann Arbor: University of Michigan Press, 1989); A. Sterne and
14 U. Goswami, "Phonological Awareness of Syllables, Rhymes, and Phonemes in Deaf Children,"
15 Journal of Child Psychology and Psychiatry and Allied Disciplines 41, no. 5 (2000): 609-625; D.
16 Nielsen and B. Luete-Stahlman, "Phonological Awareness: One Key to the Reading Proficiency
17 of Deaf Children," American Annals of the Deaf 147, no. 3 (2002): 11-19; B. Luete-Stahlman
18 and D. Nielsen, "The Contribution of Phonological Awareness and Receptive and Expressive
19 English to the Reading Ability of Deaf Students with Varying Degrees of Exposure to Accurate
20 English," Journal of Deaf Studies and Deaf Education 8, no. 4 (2003): 464-484; C. Chamberlain
21 and R. Mayberry, "Theorizing about the Relation between American Sign Language and
22 Reading," in Language Acquisition by Eye, eds. C. Chamberlain, J. Morford and R. Mayberry
23 (Mahwah, NJ: Earlbaum, 2000): 221-259; S. Goldin-Meadow and R. Mayberry, "How do

1 Profoundly Deaf Children Learn to Read?" Learning Disabilities Research & Practice 16, no. 4
2 (2001): 221-228.

3 51. D. Moores, "Print Literacy: The Acquisition of Reading and Writing Skills," in Deaf
4 Learners: Developments in Curriculum and Instruction, eds. D. Moores and D. Martin
5 (Washington D.C.: Gallaudet University Press, 2006): 41-55.

6 52. R. O'Reilly, A. Mangiardi, and T. Bunnell, "Cochlear Implants," in Access: Multiple
7 Avenues for Deaf People, eds. D. DeLuca, I. Leigh, K. Lindgren, D.J. Napoli (Washington,
8 D.C.: Gallaudet University Press, 2008): 38-74; R. McConkey et al., "Effect of Age at Cochlear
9 Implantation on Auditory Skill Development in Infants and Toddlers," Archives of
10 Otolaryngology -- Head & Neck Surgery 130 (2004): 570-574; C. Conno et al., "The Age at
11 Which Young Deaf Children Receive Cochlear Implants and Their Vocabulary and Speech-
12 production Growth: Is there an Added Value for Early Implanation?" Ear and Hearing 27 (2006):
13 628-644; A. Geers, "Speech, Language, and Reading Skills after Early Cochlear Implantation,"
14 Archives of Otolaryngology - Head & Neck Surgery 130 (2004): 634-638; J. Nicholas and A.
15 Geers, "Will they Catch Up? The Role of Age at Cochlear Implantation in the Spoken Language
16 Development of Children with Severe to Profound Hearing Loss," Journal of Speech, Language,
17 and Hearing Research 50, no.4 (2007): 1048-1062; B. Richter, S. Eissele, R. Laszig, and E.
18 Löhle, "Receptive and Expressive Language Skills of 106 Children with a Maximum of 2 Years'
19 Experience in Hearing with a Cochlear Implant," International Journal of Pediatric
20 Otorhinolaryngology 64 (2002): 111-125.

21 53. N.E. Fink et al., CDACI Investigative Team, "Childhood Development after Cochlear
22 Implantation (CDaCI) Study: Design and Baseline Characteristics," Cochlear Implants
23 International 8, no. 2 (2007): 92-116.

- 1 54. M. Svirsky, S. Theo, and H. Neuburger, "Development of Language and Speech
2 Perception in Congenitally, Profoundly Deaf Children as a Function of Age at Cochlear
3 Implantation," Audiology and Neuro-otology 9 (2004): 224-233; G. Szagun and B. Stumper,
4 "The Younger the Better? Factors Accounting for Variability in Linguistic Progress of Young
5 Children with Cochlear Implants," Presented at the Biennial Meeting of the Society for Research
6 in Child Development, Boston, MA, 2007.
- 7 55. A. Uziel et al., "Ten Year Follow-up of a Consecutive Series of Children with
8 Multichannel Cochlear Implants," Otology & Neuro-otology 28 (2007): 615-628; O'Reilly,
9 Mangiardi, and Bunnell, "Cochlear Implants," see note 52 above.
- 10 56. Figueras, Edwards, and Langdon, "Executive Function and Language in Deaf
11 Children," see note 35 above.
- 12 57. Marschark and Hauser, eds. Deaf Cognition, Foundations and Outcomes, see note 35
13 above.
- 14 58. D.L. Horn, R.A.O. David, D.B. Pisoni, and R.T. Miyamoto, "Behavioral Inhibition
15 and Clinical Outcomes in Children with Cochlear Implants," The Laryngoscope 115 (2005): 595-
16 600.
- 17 59. Christiansen and Leigh, Cochlear Implants in Children: Ethics and Choices, see note
18 5 above.
- 19 60. G. Martineau, P.A. Lamarche, S. Marcoux, and P.-M. Bernard, "The Effect of Early
20 Intervention on Academic Achievement of Hearing-impaired Children," Early Education and
21 Development 12, no. 2 (2001): 275-289
- 22 61. O. Sacks, Seeing Voices: A Journey into the World of the Deaf (Berkeley: University
23 of California Press, 1989): 8.

- 1 62. C. Hicks and A. Tharpe, "Listening Effort and Fatigue in School Age Children with
2 and Without Hearing Loss," Journal of Speech, Hearing, Language Research 45 (2002): 573-
3 584.
- 4 63. Marschark, Rhoten, and Fabich, "Effects of Cochlear Implants on Children's Reading
5 and Academic Achievement," see note 27 above; A. Geers, E. Tobey, J. Moog, and C. Brenner,
6 "Long-term Outcomes of Cochlear Implantation in the Preschool Years: From Elementary
7 Grades to High School," International Journal of Audiology 47, Supplement 2 (November 2008):
8 21-30.
- 9 64. C. Baker, "Deaf Children: Educating for Bilingualism," Deafness and Education 21,
10 no. 3 (1997): 3-9.
- 11 65. Schick, de VilliersP, de Villiers, and Hoffmeister, "Language and Theory of Mind: A
12 Study of Deaf Children," see note 34 above; Marschark and Hauser, eds. Deaf Cognition,
13 Foundations and Outcomes see note 35 above; C. Peterson, "Theory-of-mind Development in Oral
14 Deaf Children with Cochlear Implants or Conventional Hearing Aids," Journal of Child
15 Psychology, Psychiatry, and Allied Disciplines 45 (2004): 1096-1106; C. Peterson, "Le
16 développement métacognitif des enfants sourds [Metacognitive Development of Deaf
17 Children]," Enfance [Childhood] 59 (2007): 282-290.
- 18 66. Christiansen and Leigh, Cochlear Implants in Children: Ethics and Choices, see note
19 5 above; R. Wilbur, "Sign Language and Successful Bilingual Development of Deaf Children,"
20 Journal of the Institute for Social Research 56 (2001): 1039-1079.
- 21 67. J. Klatter-Folmer, R. van Hout, E. Kolen, and L. Verhoeven, "Language Development
22 in Deaf Children's Interactions with Deaf and Hearing Adults: A Dutch Longitudinal Study,"
23 Journal of Deaf Studies and Deaf Education 11, no. 2 (2006): 238-251.

- 1 68. E. Bialystok, F. Craik, and M. Freedman, "Bilingualism as a Protection against the
2 Onset of Symptoms of Dementia," Neuropsychologia 45, no. 2 (2007): 459-464; E. Bialystok, H.
3 Craig, R. Klein, and M. Viswanathan, "Bilingualism, Aging, and Cognitive Control: Evidence
4 from the Simon Task," Psychology and Aging 19 (2004): 290-303.
- 5 69. C. Baker, Foundations of Bilingual Education and Bilingualism 4th ed. (Clevedon:
6 Multilingual Matters, 2006).
- 7 70. P.M. Prinz and M. Strong, "ASL Proficiency and English Literacy within a Bilingual
8 Deaf Education Model of Instruction," Topics in Language Disorders 18, no. 4 (1998): 47-60.
- 9 71. J. Cummins and M. Gulustan, "Bilingual Education and Cognition," Alberta Journal
10 of Educational Research 20, no. 3 (September 1974): 259-266.
- 11 72. P. Kushalnagar, Language Acquisition, Bilingualism and Attention (Dissertation
12 Abstracts International, UMI No. AAT 3301936, 2007).
- 13 73. P. Lightbown and N. Spada, How Languages are Learned 3rd ed. (Oxford: Oxford
14 University Press, 2006).
- 15 74. F. Grosjean, Life with Two Languages: An Introduction to Bilingualism (Cambridge,
16 Mass: Harvard University Press, 1982); I. Parasnis, Cultural and Language Diversity and the
17 Deaf Experience (Cambridge: Cambridge University Press, 1996).
- 18 75. Parasnis, Cultural and Language Diversity and the Deaf Experience, see note 74
19 above; D. Bishop and K. Mogford-Bevan, Language Development in Exceptional Circumstances
20 (Boca Raton, FL: Psychology Press, 1988).
- 21 76. Wilbur, "How to Prevent Educational Failure," see note 45 above.
- 22 77. M. Brennan, "Challenging Linguistic Exclusion in Deaf Education," Deaf Worlds,
23 Deaf People, Community and Society 15, no. 1 (1999): 2-10.

- 1 78. M. Marschark, Raising and Educating a Deaf Child (Oxford: Oxford University
2 Press, 1998).
- 3 79. Grosjean, Life with Two Languages: An Introduction to Bilingualism, see note 74
4 above; R.E. Johnson, S.K. Liddell, and C.J. Erting, "Unlocking the Curriculum: Principles for
5 Achieving Access in Deaf Education," Gallaudet Research Institute Working Paper 89-3
6 (Washington, D.C.: Gallaudet University, 1989); S. Prillwitz, "Der lange Weg zur
7 Zweisprachigkeit Gehörloser im deutschen Sprachraum [The ***]," in Gebärdensprache in
8 Forschung und Praxis, eds. S. Prillwitz and T. Vollhaber (Hamburg: Signum, 1991):17-34; S.N.
9 Davies, "The Transition Toward Bilingual Education of Deaf Children in Sweden and Denmark:
10 Perspectives on Language," Sign Language Studies 7 (1991): 169-195.
- 11 80. D. Hermans, H. Knoors, E. Ormel, and L. Verhoeven, "The Relationship between the
12 Reading and Signing Skills of Deaf Children in Bilingual Education Programs," Journal of Deaf
13 Studies and Deaf Education 13, no. 4 (2008): 518-530.
- 14 81. B. Hansen, "Sign Language and Bilingualism: A Focus on an Experimental Approach
15 to the Teaching of Deaf Children in Denmark," in Sign and School: Using Signs in Deaf
16 Children's Development, ed. J. Kyle (Clevedon: Multilingual Matters, 1987): 81-88.
- 17 82. C. Deck, "Bilingual Education for Deaf Children in France," in Sign and School:
18 Using Signs in Deaf Children's Development, ed. J. Kyle (Clevedon: Multilingual Matters,
19 1987): 198-205; D. Bouvet, The Path to Language: Bilingual Education for Deaf Children
20 (Clevedon: Multilingual Matters, 1990).
- 21 83. K.-B. Günther, Bilingualer Unterricht mit gehörlosen Grundschulern:
22 Zwischenbericht zum Hamburger bilingualen Schulversuch (Hamburg: Verlag hörgeschädigte
23 kinder, 1999).

- 1 84. Royal School for the Deaf Derby, "A Bilingual Approach," Accessed November 8,
2 2008: <http://www.rsd-derby.org/>; M. Grimes and A. Cameron, "Inclusion of Deaf Pupils in
3 Scotland: Achievements, Strategies and Services," August 2005, Accessed November 8, 2008:
4 http://www.isec2005.org.uk/isec/abstracts/papers_g/grimes_m.shtml
- 5 85. K. Svartholm, "Bilingual Education for the Deaf in Sweden," Sign Language Studies
6 81 (1993): 291-332; K. Heiling, "Education of the Deaf in Sweden," in Global Perspectives on
7 the Education of the Deaf in Selected Countries, ed. H.W. Brelje (Hillsboro, OR: Butte
8 Publications Inc., 1999): 358-365.
- 9 86. C. Maye, G. Ringli, and P. Boyes Braem, "The Use of Signs in Switzerland: Projects
10 in the Zürich and the Geneva Schools," in Sign and School: Using Signs in Deaf Children's
11 Development, ed. J. Kyle (Clevedon: Multilingual Matters, 1987):162-170.
- 12 87. B. van den Bogaerde, "Sign Language of the Netherlands (SLN) and Deaf Culture,"
13 Accessed November 8, 2008:
14 [http://www.thefreelibrary.com/Sign+language+of+the+Netherlands+\(SLN\)+and+deaf+culture-](http://www.thefreelibrary.com/Sign+language+of+the+Netherlands+(SLN)+and+deaf+culture-a0107489414)
15 [a0107489414](http://www.thefreelibrary.com/Sign+language+of+the+Netherlands+(SLN)+and+deaf+culture-a0107489414)
- 16 88. P. Pritchard, "Provision for the Education of Deaf Pupils in Norway," Vestlandet
17 kompetansesenter , January 2005, Accessed November 8, 2008:
18 <http://www.batod.org.uk/index.php?id=/publications/on-linemagazine/models/norway.htm>
- 19 89. C. Plaza Pust, E. Morales López, and V Gras Ferrer, "Sign Bilingual Education in
20 Spain: Current Issues and Proposals for the Future." Paper Presented at Theoretical Issues in
21 Sign Language Research 8 (TISLR 8), Barcelona September 30 to October 2, 2004, Accessed
22 November 8, 2008:
23 <http://64.233.169.104/search?q=cache:U1h0f8dKXT4J:www.ub.es/ling/islr8/Plaza->

1 Gras%20Morales.doc+Sign+Bilingual+Education+in+Spain:+Current+Issues+and+Proposals+for
2 +the+Future&hl=en&ct=clnk&cd=1&gl=us&client=firefox-a

3 90. L. Pribanić, "Sign Language and Deaf Education: A New Tradition," Sign Language
4 & Linguistics 9, no. 1-2 (2006): 233-254; L. Leeson, "Signed Languages in Education in Europe
5 – A Preliminary Exploration," Paper Presented at Intergovernmental Conference: Languages of
6 Schooling: Towards a Framework for Europe, Strasbourg, October 16-18, 2006, Accessed
7 November 8, 2008:

8 [http://64.233.169.104/search?q=cache:xKbOoRdZDeIJ:www.coe.int/t/dg4/linguistic/Source/Leeson_EN.doc+bilingual+deaf+education+Finland&hl=en&ct=clnk&cd=8&gl=us&client=firefox-](http://64.233.169.104/search?q=cache:xKbOoRdZDeIJ:www.coe.int/t/dg4/linguistic/Source/Leeson_EN.doc+bilingual+deaf+education+Finland&hl=en&ct=clnk&cd=8&gl=us&client=firefox-a)
9
10 a

11 91. Bilingual Project for International Deaf Education, "Bilingualism in International
12 Deaf Education," Accessed November 8, 2008:

13 <http://deafbilingualproject.blogspot.com/2007/12/bilingualism-in-international-deaf.html>

14 92. C. Plaza Pust, "Bilingualism and Deafness. A Research Project on: Language
15 Contacts in the Bilingual Acquisition of Sign Language and Oral/Written Language," Accessed
16 November 8, 2008: [http://www.uni-](http://www.uni-frankfurt.de/fb/fb10/KogLi/Lehrstuhl_Leuninger/Psycholinguistik/Projekte.html)

17 [frankfurt.de/fb/fb10/KogLi/Lehrstuhl_Leuninger/Psycholinguistik/Projekte.html](http://www.uni-frankfurt.de/fb/fb10/KogLi/Lehrstuhl_Leuninger/Psycholinguistik/Projekte.html)

18 93. I. Ahlgren and K. Hyltenstam, eds., Bilingualism in Deaf Education: Proceedings of
19 the International Conferences on Bilingualism in Deaf Education, Stockholm, Sweden [special
20 issue], International Studies on Sign Language and Communication of the Deaf Vol. 27
21 (Hamburg, Germany: Signum Press, 1994).

22 94. M. Pickersgill and S. Gregory, Sign Bilingualism: A Model (Wembley, Middlesex: A
23 LASER Publication, 1998); S. Gregory, "Deafness," in Special Teaching for Special Children?

1 Pedagogies for Inclusion, eds. A. Lewis and B. Norwich (Columbus, OH: Open University Press,
2 2005): Chapter 2.

3 95. I.M. Munoz-Baell et al., "Preventing Disability through Understanding International
4 Megatrends in Deaf Bilingual Education," Journal of Epidemiology and Community Health 62
5 (2008): 131-137.

6 96. Christiansen and Leigh, Cochlear Implants in Children: Ethics and Choices, see note
7 5 above; Marschark, Raising and Educating a Deaf Child, see note 78 above.

8 97. Munoz-Baell et al., "Preventing Disability through Understanding International
9 Megatrends in Deaf Bilingual Education," see note 95 above.