ABSTRACT
        In order to better evaluate bilingualism in deaf
children, this study examined whether observers (N=37) from different
backgrounds would agree on deaf children's use of either American
Sign Language (ASL) or English signing. Observers represented a range
of background experience in a variety of schools and programs; 6 were
deaf; 31 were hearing; 10 identified themselves as primarily ASL
signers; and 27 as primarily Pidgin Sign English users. Observers
viewed a videotape and decided whether the child signer was using ASL
or English signing. Judgments were compared to those of a panel of
sign language specialists. General results indicated no significant
differences among observers at different levels of experience nor
between deaf and hearing observers. However, the average score of
deaf observers was significantly higher than that of hearing
observers in identifying one child using ASL. Observers made their
judgments predominantly on the basis of language use rather than
structure or content. Results suggest that professionals working with
deaf children cannot reliably distinguish between ASL and English
signing and that years of experience with the deaf or being deaf
oneself was of minimal assistance. Continued study of differences and
similarities in ASL and English signing is recommended. Includes 29
references. (DB)

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OBSERVER AGREEMENT ON JUDGMENTS OF BILINGUALISM

IN DEAF CHILDREN

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Recent focus on bilingual education of deaf children raises issues of differences between American Sign Language (ASL) and English signing (ES). Empirical evidence on observed differences among deaf children of ASL families and English signing families is limited. We do not know if young deaf children exposed to ASL in their home environments and English signing in their school environments acquire two distinctly different languages. We do not know if these children are likely to demonstrate bilingualism in their spontaneous with other deaf children or if one sign language or system is more likely to be used than another. We do not know if features from ASL and English are likely to be mixed (Maxwell, 1990). We also do not know if professionals can identify bilingualism when and if it is demonstrated in young deaf children. From both a practical and theoretical perspective, the ability to identify the language or languages that a child uses is critical to discussion of bilingualism. The purpose of this study was to determine whether observers of different backgrounds would agree on children's use of ASL and English signing, when the observers viewed videotaped samples of deaf children's conversation. The research questions included the following:

1. Is there a difference among observer judgments of ASL and English signing in deaf children according to years of experience in using sign language?

2. Is there a difference between hearing observers and deaf observers in judgments of ASL and English signing in deaf children?

3. What criteria are used by observers in distinguishing ASL and English signing in deaf children?

Method

Thirty-seven observers representing three state schools for the

deaf, two university programs, two rehabilitation agencies, two public

schools, and a state agency for the deaf and hard of hearing served as

subjects. Six of the observers were deaf; 31 were hearing. Eleven of

the observers had fewer than 10 years of experience in using sign

language; 15 had more than 10 years but fewer than 20 years of experience;

and 11 had more than 20 years of experience. Ten of the observers

identified themselves as primarily ASL signers; 27 identified themselves

as primarily Pidgin Sign English users.

The observers viewed a videotape that contained 5 conversations,

each lasting about 3 minutes. The observers were informed that two of

the four children involved in the conversations were from ASL homes,

and that two were from homes where their parents used spoken English and

English signing. The observers were given a response sheet that included

the following questions:

1. Is child A using ASL or English signing with child B?

2. How did you come to this decision?

3. Is child B using ASL or English signing with child A?

4. How did you come to this decision?

Five additional observers, specialists in sign language, were also

shown the videotape. They were asked to participate in the project as cri-

terion judges. Their judgments, when agreement was 80% or better, were

considered the expected judgments to which the other 37 observers'

judgments were compared. An observer who responded as expected, therefore,

scored 100. Any deviation from the expected response reduced the score by 16 points. (Agreement rates for the 5 criterion judges was 80% on only 6 of the possible 10 judgments; only those 6 judgments were scored for the other observers.)

Scores of the 11 observers with fewer than 10 years of experience in using sign language were compared to scores of 11 observers selected at random from the 15 reporting 11 to 19 years of experience and to the 11 observers reporting greater than 20 years of experience. Scores of the 6 deaf observers were compared to 6 hearing observers selected at random from the pool of 31. Finally, each of the narrative responses were coded as a "structure," "content," or "use" (Bloom & Lahey, 1978) statement. The codings were matched by a certified speech-language pathologist at a school for the deaf; agreement was high ($r = .99$) between the author's coding and the second speech-language pathologist's coding.

Results

General results indicated lower scores among the 37 observers reported their roles as teachers of deaf children, teachers of sign language, and educational interpreters (with a range of 33 to 100%) than among the criterion judges (with a range of 80 to 100% on the selected items). Individual scores for the observers at different levels of experience were not statistically different ($F (2,30) = .66$, $p > .05$). Similarly, the scores for the deaf observers were not statistically different from the scores of the selected hearing observers ($F (1, 10) = .635$, $p > .05$). When the conversations were analyzed individually, however, the average score of the deaf observers was significantly higher than that of the

hearing observers in identifying the ASL child in conversation 2; (X^2 (1,

N = 37) = 9.03, p $>$ .05). No other differences were found.

Analysis of the narrative responses indicated that the majority of
responses (57%) provided by the observers in distinguishing ASL from
English signing focused on language use. Only 14% of the responses
focused on the children's content; and 29% focused on their structure.
Interestingly, however, the majority of responses (50%) written by
observers who disagreed from the criterion judges in identifying a child as
an ASL or English signing user, focused on structure; only 27% of their
responses dealt with use and 23% with content.

Discussion

Discussion of these results can be approached from two perspectives:
one focuses on the subjects or observers; the other focuses on the stimulus
or the children observed. Advocates of bilingual education argue that ASL is
the cultural right of all deaf children. The results of this study do not
challenge the merits of this argument but do raise questions as to an
assumption underlying the argument: namely, that professionals working with
deaf children can distinguish between ASL and English signing in children's
communication. Results of this study do not support such an ability in
observers. Approximately 60% of the 37 observers agreed with the criterion
judges in identifying the ASL and English signing in the children, and
this agreement was based on only 6 of 10 questions in which the criterion
judges had 80 to 100% agreement. Additionally, observers with more years of
experience were no more "accurate" in identifying a child's language than
observers with fewer years of experience. Deaf observers were generally

no more accurate in identifying the child's language than observers who hear. In one case, however, a conversation involving the oldest of the four child- ren, there was a statistically significant difference between the deaf observers and the hearing observers in identifying ASL.

Discussion of bilingualism also suggests that an observable dichotomy exists between ASL and English signing. To date, research into observer identification of ASL and English signing has not supported a clear dichotomy. Children exposed to ASL in their home environments and to English in their school environments are not readily identified as using either ASL or English signing, even when paired with children likely to elicit only one of the languages. Features from both ASL and English signing are ap- parently present in the spontaneous sign language demonstrated by these young children. "Language mixing" (Maxwell, 1990), then, may operate to prevent observers from making clearly distinguishable judgments.

Additional int rpretation of the results involves analysis of the nar- rative responses. Because the observers who provided written explanations with their judgments attended more to language use than to structure and content, it is possible that the distinguishing features of ASL and English signing are pragmatic features. A child who refers to first person with an initialized "I," for example, may also demonstrate ASL in spatial manipula- tions, nonverbal facial expressions and postural shifts (use). An observer who focuses only on the initialized sign (content) may be blinded from seeing the child's demonstrated ASL. Training professionals who work with deaf children to focus on pragmatic skills should lead to improved knowledge in this pioneer territory. Without such training, and without continued study of the differences and similarities in ASL and English signing, advocacy of bilingualism as an end is advocacy without a means.

Comparison of observer judgments by years of experience in using sign language:

1 to 10 years	11 to 19 years	more than 20 years
50	100	100
50	67	33
50	67	50
100	33	83
25	83	50
80	50	83
40	100	67
83	83	67
0	83	100
83	67	33
100	67	67

$\dot{X} = 69.9$ $\bar{X} = 72.7$ $\bar{X} = 66.6$

$$\underline{F}\ (2,30) = .66, \underline{p} > .05$$

Comparison of observer judgments by hearing status:

Hearing Observers	Deaf Observers
40	83
83	80
60	100
83	67
100	67
33	67

$\bar{X} = 66.5$ $\bar{X} = 77.3$

$$\underline{F}\ (1, 10) = .635, \underline{p} > .05$$

Narrative Responses by Type:

Conversation	Structure	Use	Content
1 (ASL$_1$)	4	19	1
2 (ASL$_2$)	18	22	9
3 (ES$_2$)	21	20	5
4 (ES$_2$)	11	9	7
5 (ES$_2$)	3	29	4
5 (ASL$_2$)	6	26	5
	29%	57%	14%

Examples of narrative responses coded by type:

Structure:	"no endings" "sentence structure is broken" "used English markers" "sign order"
Use:	"her command cf ASL behaviors" "expressions and body shifts" "repetition of phrase" "facial expressions"
Content:	"used 'I'" "initialized signs" "use of classifiers" "ASL idioms"

References

Bloom, L. & Lahey, M. (1978). Language development and language disorders. New York: John Wiley & Sons.

Brodesky, R. & Cohen, H. (1988). The American Sign Language/English studies project: A progress report. American Annals of the Deaf, 133, 330-335.

Clements, A. & Prickett, H. (1986). American Sign Language in education of the deaf. American Annals of the Deaf, 132, 218-19.

Cokely, D. (1983). When is a pidgin not a pidgin? An alternate analysis of the ASL-English contact situation. Sign Language Studies, 38, 1-24.

Commission on Education of the Deaf. (1988). Education of the Deaf. Report to the United States Congress. Washington, D. C.

Eagney, P. (1987). ASL? English? which? comparing comprehension. American Annals of the Deaf, 132, 272-275.

Ferguson, G. (1981). Statistical analysis in psychology and education, 5th ed. New York: McGraw-Hill Book Company.

Grosjean, F. (1982). Life with two languages: An introduction to bilingualism. Cambridge: Harvard University Press.

Gustason, G. (1979). The dynamics and interaction of ASL and new signs. In F. Caccamise & G. Gustason (Eds.), Manual communication instructional programs in the educational setting. Washington D.C.: Gallaudet College.

Johnson, R., Liddle, S., & Erting, C. (1989). Unlocking the curriculum: Principles for achieving access in deaf education. Working Paper 89-3. Washington, D.C.: Gallaudet Research Institute.

Jordan, I., Gustason, G., & Rosen, R. (1979). An update on communication trends in programs for the deaf. American Annals for the Deaf, 124, 350-357.

Kratochwill, T. & Wetzel, R. (1977). Observer agreement, credibility, and judgement: Some considerations in presenting observer agreement data. Journal of Applied Behavior Analysis, 10, 133-139.

Lee, D. (1982). Are there really signs of diglossia? Re-examining the situation. Sign Language Studies, 35, 127-152.

Livingston, S. (1983). Levels of development in the language of deaf children: ASL grammatical processes, Signed English structures, and semantic features. Sign Language Studies, 40,

193-285.

Lucas, C. & Valli, C. (1989). Language contact in the American
    Deaf community. In C. Lucas (Ed.), The sociolingusitics of
    the Deaf community. San Diego: Academic Press, Inc.

Lucas, C. & Valli, C. (1990). ASL, English and contact signing.
    In C. Lucas (Ed.), Sociolinguistics of sign language. Silver
    Spring: Linstok Press.

Luetke-Stahlman, B. (1983). Using bilingual instructional models
    in teaching hearing-impaired students. American Annals of the
    Deaf, 128, 873-877.

Luetke-Stahlman, B. (1990). Can SEE-2 children understand ASL-
    using adults? American Annals of the Deaf, 135, 7-8.

Luetke-Stahlman, B. & Luckner, J. (1991). Effectively educating
    students with hearing impairments. White Plains: Longman.

Maxwell, M. (1983). Simultaneous commurication in the classroom:
    What do deaf children learn? Sign Language Studies, 39, 95-
    111.

Maxwell, M. (1990). Simultaneous communication: The state of the
    art proposals for change. Sign Language Studies, 69, 333-390.

Markowicz, H. (1980). Some sociolinguistic considerations of ASL.
    In W. Stokoe (Ed.), Sign and culture: A reader for students
    of American Sign Language. Silver Spring: Linstok Press.

Meadow, K. (1980). Deafness and child development. Berkeley:
    . University of California Press.

Stewart, D. (1983). Bilingual education: teachers' opinions of
    signs. Sign Language Studies, 39, 145-167.

Stewart, D. (1990). Rationale and strategies for American Sign
    Language intervention. American Annals of the Deaf, 135, 265-
    270.

Stokoe, W. (1980). The study and use of sign language. Studies
    in Sign Linguistics, 21, 27-41.

Suty, K. & Friel-Patti, S. (1982). Looking beyond Signed English
    to describe the language of two deaf children. Sign Language
    Studies, 35, 153-168.

Woodward, J. (1978). Historical bases of American Sign Language.
    In P. Siple (Ed.), Understanding language through sign
    language research. New York: Academic Press.

Woodward, J. (1973). Some characteristic of Pidgin Sign English.
    Sign Language Studies, 3, 39-46.

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