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ABSTRACT

A case study was undertaken to examine the influence of one aspect of signed grammar, transparency of reference of some signs, on the acquisition of possessive pronouns in American Sign Language (ASL). The subject was a hearing child of deaf parents who was learning ASL and English. Data were collected in home visits betwen the ages of 1.1 and 3.2 in videotapes and anecdotal records. The Curtiss-Yamada Comprehensive Language Evaluation measure was used to assess receptive language, with stimuli translated into ASL to assess comprehension of the relevant structures in sign language. Four stages were found in the subject's mastery of possessive forms: (1) use of names to indicate possessor in both languages; (2) appearance of some possessive pronouns in both languages (first and second person, and some third person in ASL), with some names still used for reference; (3) correct production of possessives in English for first and second person forms, with continuation of stage 2 errors in ASL and with a new signing error of indicating the object rather than possessor; and (4) correct use of first and second person forms in English and ASL, with the few remaining errors in number and gender of the third person forms. Results suggest there was not an apparent advantage in learning signed grammar as opposed to spoken grammar, since the acquisition of possessives occurred simultaneously in the two languages, and signed possessives may have been more difficult. It is concluded that children probably do not take advantage of special cues to grammatical competence available to them. (MSE)

Which is MINE/mine? Acquisition of possessives in ASL and English[1]

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The study of child language acquisition centers around the question of exactly what children bring to the task of acquiring their language. Most models of language acquisition were formulated on the basis of, and to explain, spoken language. The assumption was, of course, that "spoken language" was equivalent to "human language". However, investigation of the acquisition of signed languages (such as American Sign Language) might yield important insights concerning the nature of the acquisition process, and to the extent to which this process operates language-(and perhaps modality-) independently.

There are three rather striking ways in which ASL differs in structure and organization from spoken languages such as English; in its potential for iconicity: b) the apparent similarity of some signs to non-linguistic but communicative gestures, and c) the apparent transparency of reference of some signs. Do these special properties facilitate the acquisition process? Various answers to this question are possible. First, children might exploit the nonlinguistic visual information available in signed languages and acquire aspects of the visual grammer more quickly and with fewer errors. This is the prediction which might be made if language is acquired on the basis of general learning principles and cognitive processes (e.g. Piaget, 1955; 1980; Bates, 1976.) A second prediction might be that language acquisition "unfolds" in a manner which does not allow for utilization of perceptual, or communicative but nonlinguistic cues which are also available in the signal. This is the prediction of models which propose an autonomouns linguistic acquisition device (Chomsky, 1965).

The research reported here is concerned with the influence on acquisition of the third of these three aspects of signed grammar; transparency of reference. One class of signs which appear to transparently mark their relationship to their referent is the set of devices used for encoding person deixis. Person deictics, such as pronouns, have as their function "...the location and identification of ...persons...being talked about." (Lyons, 1977). This class of forms is difficult for the language learner to master in that they violate the stable reference associated with most lexical items. This difficulty is evidenced by the reversal errors made by some children learning pronouns in spoken language (Chiat, 1981; Clark, 1977). There is now some evidence that children learning a signed language may also produce similar types of errors (Pettito, 1983).

Possessives, the type of person deictic examined here, are formed in ASL by a flat "B" handshape, with the palm of the hand pushed towards the person who possesses the object in question.

Thus, in addition to the transparent match of referent and direction/ goal of sign in the visual field, there is an apparently transparent morphological relationship between possessives. The palm towards self indicates "my/mine"; palm towards the listener or towards a third party indicates "your/ yours" and "his/hers/its" respectively. (These will be represented in the examples as POSS:1, POSS:2 and POSS:3).

The subject of this study is Cari, the hearing child of deaf parents who is learning both ASL and English. Her bilingual acquisition provides a unique context in which to investigate some of the specific questions raised above concerning the interaction of a a specific component of a grammar with the unique options offered by the particular modality in which it is used.

Cari's development was normal in all areas, with her language development in both languages similar to that of her peers learning either language as their first language. Cari's parents, while raised in strongly oral environments in their childhood, now estimate that their use of sign language accounts for 95% of their communication with each other and with their deaf friends. However, they are able to communicate to some extent orally as well, and thus have used English, signed utterances, and some utterances which were simultaneously signed and spoken with their daughter. It is certain that Cari's input consisted of not only structures grammatical by the standards and rules of the grammar of ASL, but of utterances more typical of PSE (Reilly and McIntire, 1980) as well. In spite of the nature of the input, Cari has managed to acquire grammatical constructions which are uniquely part of ASL (Jackson, 1984). Cari was also exposed to sign in her frequent interactions with family friends who are deaf. Her exposure to English comes from her neighbors (including the children she plays with), a hearing person living in the home (who also signs), and from her hearing relatives and her day care.

The data collection was made in home visits completed when the child was between the ages of 1-1 and 3-2. Video-taped samples were made of her interactions in both languages, and detailed anecdotal records were kept by the researcher, the parents, and a hearing person living in the home. The CYCLE (Curtiss-Yamada Comprehensive Language Evaluation; Curtis and Yamada, unpublished) was used to assess Cari's receptive language, with translations of the stimuli into ASL used to aassess comprehension of the relevant structures in the signed language.

Comprehension: The test for possessive pronouns from the CYCLE-R was adapted for ASL, with the following being a typical translation (a) represents the original English stimulus):

a) Touch your hair
b) TOUCH POSS:2 HAIR

The results of comprehension testing for Cari on this construction are given in Table 1.

Table 1: Comprehension of possessives

	English		ASL	
Age (CA) tested	Score	Forms	Score	Forms
2-9	2/15	1st person	3/15	1st person
3-0	5/15	1st, 2nd person	6/15	1st, 2nd person
3-2	13/15	1st, 2nd, 3rd person sq., pl.	11/15	1st, 2nd, 3rd person sq., pl.

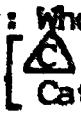
It is clear that development in comprehension was similar in the two languages, with first and second person forms comprehended first, followed by third person singular and plural forms in each language.

Production: Cari's errors in the course of acquiring this structure were far more productive that those seen in her acquisition of other forms which encode person deixis. The errors also involved more than merely reversals of first and second person forms, as has been noted for personal pronouns, and/or reversal of subject and object (as in the case of her errors on deictic changes on verbs).

Cari exhibited four stages in her mastery of these forms.

Stage 1 (1-4 to 1-8): Cari used names to indicate the possessor of an object, both in English and in ASL, as in:[2]

(CA:1-5;  =the name sign for Cathy. Cari is pulling items out of Cathy's purse. Note here, as in many examples that portions of the utterance were signed and spoken simultaneously.

Cathy: Whose purse is that?
Cari: [
[Cathy
("Cathy ('s)")

(CA: 1-7: Cari points to a picture of her grandfather's boat)
Cathy: Whose boat is that? Is that your boat?
Cari: GRANDPA BOAT
("Grandpa ('s) boat")

Stage 2 (1-9 to 2-1): Possessive pronouns began to appear in both languages (first and second person, and some third person in ASL), although some names continue to be used as possessive markers as well, as was seen in Stage 1. An example of this period is the following:

(CA:1-10)
(While showing Cathy her car seat in the family car)
Cari: [POSS:1 CHAIR
[My chair
Cathy: Whose chair?

Cari: POSS: 1+

However, in addition to some correct forms, errors were made in the production and comprehension of possessives in both languages. Her errors in this stage were complicated by utterances in which an incorrect form in one language was simultaneously produced with the correct form from the other. This pattern occurred in both directions: some utterances contained the correct English possessive but the wrong ASL marker (as in the first example below), as well as the reverse (as in the second example).

(CA: 1-9) Cathy is teasing Cari, who is looking longingly at the videotape camera; in Cathy's utterance note that ∆C now indicates Cari's name):

Cathy: ∆C WHO CAMERA index: camera (wh-q)
POSS: 2++ (q)
("Cari, whose camera is this? Yours?")
Cari: *POSS:1
No, your
(Meaning: "Yours"; ASL error; "*mine")

(CA: 1-11; Cathy and Cari are talking about Daddy; he begins to drink a glass of water. Facing Cathy, she says and signs:)
Cari: POSS:3 WATER
*Your water
(Meaning: "his water"; English error; *your")

Stage 3: (2-1 to 2-4): At this point, Cari was able to correctly produce possessives in English for first and second person forms. The few errors noted for English were made on correct number and gender for third person forms. However, in her ASL utterances, errors of the type noted for Stage 2 continued (along with some correct use of these forms). In addition, a new type of error appeared for ASL forms which consisted of using the handshape which is the base for possessives in ASL (B-hand) oriented toward the object which was possessed rather than (correctly) towards the possessor. An example of this is:

(CA: 2-1; Cari is trying to convince her parents that she wants to sleep in their bed).
Cari: index: 1 WANT*POSS:bed BED
(Meaning: "I want your bed"; ASL error: I want *its (the bed's) bed.")

Thus, in this stage, errors were made in each language regard-

ing choice of forms, but the error types were different in each language, and in fact were almost always paired with the correct form from the other language in cases of simultaneously produced utterances.

Stage 4 (2-5 to 3-2): ASL and English possessives for first and second person form were used and comprehended correctly. The few remaining errors are on number and/or gender of third person.

Cari's development of production of possessives is outlined in Table 2. For some forms, more than one error was produced; all errors are listed next to the target form.

Table 2: Use of Possessives by stage

	ASL		English	
Stage	correct	errors	correct	errors
Stage 1	------	names	------	names
Stage 2	1st person	2nd person	1st person	names
	2nd person	1st person	2nd person	1st, 3rd person
Stage 3	1st person	2nd person	1st person	-----
	2nd person	1st person possessed object	2nd person	-----
	3rd person sg.	possessed object	3rd person person sg., pl.	3rd person number, gender
Stage 4	1st, 2nd, person	-----	1st, 2nd person	------
	3rd person sg., pl.	wrong number	3rd person	wrong person gender

The data seem to cluster around several important points. First, possessives were acquired in both languages at about the same point in development, and with some similar stages seen throughout. Thus, the ASL possessives were not acquired any more

rapidly than the English forms.

Secondly, acquisition of possessives was not in any apparent sense easier in the signed vs. the spoken language as reflected by the number and type of errors. Cari's attempts at production of ASL possessives were as plagued (if not more so) by errors as were her attempts to produce these constructions in English.

Third, while there were some similarities in terms of stages, the error patterns on possessives were not identical in the two languages. In English, the errors consisted of the use of "your" to mean not only (correctly) "you", but also to mean "my" and "his". "Your" seems to have been abstracted as a general possessive marker, regardless of the actual possessor. In ASL, two patterns of errors were observed, one of which was different from the type of errors observed for English. In spite of the correspondence between the actual location of the possessor, and the deixis of the sign in ASL, Cari mistakenly coded the deixis of the possessed object into the morpheme which was the symbol for possession.

In summarizing the data concerning acquisition of possessives, as was true for Cari's acquisition of other person deictics (Jackson, 1984) we find there was not an apparent advantage found in learning the signed grammar as opposed to that of the spoken language. In fact, if we assume number of error types to be indicative of how difficult a structure is to acquire, possessives in the signed language initially proved to be somewhat more confusing for this child. It was as if she ignored the correspondence between the deixis of the sign and the deictic location of the actual possessor, both apparent in the same visual field. Instead, she stubbornly utilized a specifically linguistic strategy to produce such constructions, and was thus subject to errors in not only the oral language, but in the signed language as well.

This should not be taken to mean that the course of acquisition does or should look identical for languages in different modalities: there is counterevidence to such a claim in the types of errors for each language noted here. However, the influence of the modality can be seen as superimposed on the more general course of acquisition. For the acquisition of grammar for the two languages studied here, the similarities lie in the developmental timing of the acquisition of a particular construction, and in the existence of similar stages in which structural aspects are mastered.

Cari's errors in ASL seem best explained on the basis of the nature of the morphological structure of POSS. All of the possessives share a common morpheme (the B-handshape, as described in earlier). Further, the evidence suggests that Cari correctly analyzed the base morpheme shared by all possessives, regardless of the possessor they refer to. What she was not able to do initially was to superimpose the deixis of the possessor for this form onto the base morpheme.

Let us return to the question posed originally: do children learning a signed language utilize the "special cues" available to them in the form of information which could be analyzed by non-

linguistic tools? The evidence from this case suggests that they do not take advantage of these possible aides into grammatical competence.

Notes

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2. In the examples, the following notational conventions are used:

SIGN:	an individual sign
	name sign: here, for a name which begins with "C" in orthographic form
+:	sign immediately preceding this is repeated
POSS: 1: index: 1	possessive pronoun: here, first person pointing sign, functioning in ASL as a pronoun.
⌈SIGN : ⌊sign	utterance was both spoken and signed: the top line corresponds to the signed elements, with the lower line used for the spoken elements
wh-q:	nonmanual device for marking wh-questions
q:	nonmanual device for marking yes-no questions

The "*" is used here as traditional within linguistics, and not as often used in ASL literature. Therefore, *SIGN indicates that the sign is ungrammatical.

References

Bates, E. 1976. Language and context. New York: Academic Press.

Chiat, S. 1981. Context-specificity and generalization in the acquistion of pronominal distinctions. Journal of Child Language, 8, 75-91.

Chomsky, N. 1965. Aspects of the theory of syntax. Cambridge, Mass. MIT Press.

Clark, R. 1977. What's the use of imitation? Journal of Child Language, 4, 341-358.

Curtiss, S., and Yamada, J. Unpublished. The Curtiss-Yamada-Comprehensive Language Evaluation (CYCLE).

Jackson, C. 1984. Language acquisition in two modalities: Person deixis and negation in American Sign Language and English. Un-

published M.A. thesis. University of California, Los Angeles.
Lyons, J. 1977. Semantics: Vol 2. New York: Cambridge University Press.
Pettito, L. 1983. From gesture to symbol: The relationship between form and meaning in the acquisition of personal pronouns in American Sign Language. Papers and Reports on Child Language Development, 22, 100-107.
Piaget, J. 1955. The language and thought of the child. Cleveland, Ohio: The World Publishing Company.
Piaget, J. 1980. Schemes of action and language learning. In M. Piattelli-Palmarini (Ed.) Language and learning: The debate between Jean Piaget and Noam Chomsky. Cambridge: Harvard University Press.
Reilly, J., and McIntire, M. 1980. American Sign Language and Pidgin Sign English: What's the difference? Sign Language Studies, 27, 151-192.