Grammar, Gesture, and Meaning in American Sign Language

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1 American Sign Language as a language

Sign languages have developed spontaneously and independently within communities of Deaf users all over the world.[1] American Sign Language (ASL) is one of those many sign languages. The obvious way that ASL and other sign languages differ from vocally produced languages is the means by which their words are produced and perceived. English words are produced by actions within the vocal tract that result in sounds perceived through audition. Signs – the words of a sign language – are produced by actions of the hands, arms, torso, face, and head that produce signals perceived visually.[2]

There have been, and continue to be, a number of misunderstandings about sign languages. Some people see sign languages as grammarless attempts at communicating through gesture or pantomime. It is not uncommon for a relative or acquaintance to tell a hearing person learning a sign language how wonderful it must be to be able to communicate with people anywhere. Such statements are based on the misconception that sign languages are the same worldwide. The statements also contain a hint of the attitude that sign languages are understandable worldwide because they lack real language properties such as grammar, which would clearly differ from one language to the next.

Another misconception about sign languages is that they are patterned after the vocally produced languages spoken in the same country. Those with this view in the United States see signers using ASL as attempting to use signs to produce signed sentences that are the manual equivalent of spoken English sentences. This view treats signs as manually produced English words. From this perspective, a sign whose semantics differs from an English word would be viewed as deviant. Sequences of signs that do not mirror English sentence structure would be viewed as ungrammatical English. In reality, since ASL and English are two entirely different languages with completely different

[1] There are significant cultural differences between a person who is audiologically deaf and part of a community using a sign language as the primary language of face-to-face communication and someone audiologically deaf but not part of a sign language-using community. James Woodward introduced the convention of using "Deaf" to describe the former and "deaf" to describe the latter.

[2] Signers who are Deaf and blind perceive signs through touch.

grammars, it would be highly unusual for an ASL sentence *ever* to have exactly the same grammatical structure as an English sentence.

Naturally, such views and misunderstandings have social consequences. For example, some people might look down upon Deaf people, or even feel sorry for them, because they were limited to communicating through gestures rather than through language. Such views also have educational consequences. Consider an example of a Deaf child with Deaf parents. By the time the child reaches school age, that child will be highly fluent in ASL. Although the child will typically have already begun learning English through instruction at home, ASL will be the child's first language. Such a child will arrive at school cognitively prepared to learn what the teachers are prepared to teach, including a second language (e.g. English). A teacher believing ASL was not a language would view such a child as, tragically, without language. This has an obvious effect on how the teacher will interact with the child, what can reasonably be expected of the child, perceptions of the child's intelligence and readiness to learn, and so on.

In 1955, William C. Stokoe took a position as an assistant professor in the English Department at Gallaudet College.[3] He was immediately immersed in an academic culture that saw ASL signs as an important part of communicating with Deaf students, but did not see ASL signs as part of a distinct language. Like most other hearing faculty at Gallaudet College, he arrived without any knowledge of ASL. At that time there were no classes teaching ASL as a language for the obvious reason that "signing" was not considered to be a language. Knowledge of signs, however, was important and classes were set up to teach new faculty members some sign vocabulary. Stokoe was instructed for three weeks in how to sign. At the end of that period he began teaching. Communication with the students was to take place by speaking English while simultaneously producing some sign vocabulary.

This practice of speaking and simultaneously producing signs is called *simultaneous communication* or *SimCom*. Its practitioners assume that SimCom assists Deaf students in acquiring English. They also assume that the simultaneous messages – the spoken message and the signed message – are equivalent. The brief example of SimCom below, videotaped in a high-school classroom in the United States, illustrates several common features of SimCom.

(1) If you copy words from an encyclopedia
IF SOAP WORD FROM ENCYCLOPEDIA
that means you are copying someone else's words.
THAT THIS\SHOW SOAP SOME OTHER WORD

The lowercase words in (1) are transcriptions of the teacher's spoken English. The uppercase English glosses appearing underneath the spoken words represent the signs produced by the teacher as she spoke. Although the spoken

[3] Gallaudet College became Gallaudet University in 1987.

and signed messages are assumed to be equivalent, they are not. The spoken English is grammatical. If just the English were presented to an English speaker, the message would be clear. In contrast to the spoken words, the signs are not organized according to the grammar of any language. The signing is also marred by ill-formed signs. The teacher has twice mistakenly signed SOAP instead of the formationally similar sign COPY. This is probably not the first time the students have seen the teacher make this error so they probably understood that this was this teacher's way of signing COPY. The teacher also produces a sign that looks like either THIS or SHOW while saying, "means." The sign SHOW is made by placing the index finger in contact with the palm of a B base hand facing outward, while moving both hands outward together. THIS is produced by a contacting movement of the index against the upward-facing palm.[4] It was difficult to tell from the videotape which of these two signs the teacher produced. The sign MEAN is produced by making two contacts of a V handshape against the palm of a B handshape, with an orientation change of the two hands between the two contacts.[5] Although production errors such as this are common when a hearing teacher speaks and produces signs at the same time, the biggest impediment to understanding the message is the lack of grammatical organization of the signs. Rather than being organized by the grammar of ASL, the signs in this example appear in an order that matches the order of the corresponding spoken English words. This does not mean that they are organized according to the grammar of English. To help make this apparent, in (2) I represent each sign produced in (1) as if it were an English word. I have also represented SOAP as "copy" and THIS/SHOW as "mean."

(2) If copy word from encyclopedia that mean copy some other word.

The written result in (2) could be described as broken English. Whatever meaning can be recovered from (2) is certainly different from the spoken English that accompanied the signs.

One can only imagine what the signing of brand-new faculty members with only three weeks of training in ASL vocabulary looked like in the classrooms at Gallaudet College in 1955. Without a coherent signed message students are forced to rely on decoding the speech they cannot hear. Under such circumstances the signs function as clues in attempting to read the lips of the teacher.[6] This example illustrates the important point that all instances of "signing" are

[4] The sign THIS is an invented sign designed to be used as part of a system of signs representing English words.

[5] Throughout this book I will describe the handshape produced by extending the index and middle fingers from a fist as a V handshape. It is sometimes also referred to as a 2 handshape.

[6] Lipreading involves constant guesswork since not all the actions within the vocal tract are visible. For example, for even the clearest of speakers, productions of the consonant sounds [t], [d], [s], and [n] look the same to the lipreader. As a result, the words *Dad, sad, tad, Dan, tan, Nat, sat, sass*, and numerous other non-word syllables all look the same. For speakers who articulate less clearly or have a big mustache or beard lipreading is even more difficult.

not ASL. In addition to SimCom, some students are taught to produce signs as if they were English words. Others are taught using artificial sign systems designed to represent English sentences visually.

By his second year, Stokoe was convinced that the students' signing was different from what he had been taught to do. When the students signed with one another, they were not putting signs together as if they were English words. They were putting signs together according to the grammar of a language other than English. Stokoe (quoted in Maher [1996]) describes this situation as follows: "I just knew that when these deaf people were together and communicating with each other, what they were communicating with was a language, not somebody else's language; since it wasn't English, it must have been their own language. There was nothing 'broken' or 'inadequate' about it; they got on splendidly with it" (p. 55). In 1957 Stokoe began a serious examination of the signing he believed to be a language. Three years later, that research culminated in the publication of *Sign Language Structure: An Outline of the Visual Communication Systems of the American Deaf.* This was the first linguistic analysis of any sign language. In it, Stokoe lays out the broad outline of ASL as a real language.

The response to his work at Gallaudet by students and faculty, both hearing and Deaf, was immediate and powerful: "Stokoe must be crazy!" The concept that the signing done by Deaf people was a real language was too radical a concept given the belief systems at the time. Undeterred, Stokoe continued his research. In 1965, collaborating with Dorothy Casterline and Carl Croneberg, he published the *Dictionary of American Sign Language on Linguistic Principles*. By the early 1970s many other linguists and psychologists began studying the properties of ASL. At that time, their published papers tended to begin with brief justifications explaining that ASL was a language. Such explanations were needed since most people still held the view that ASL was not a language. By perhaps the mid-seventies, and most certainly by the early eighties, the weight of published descriptions of ASL and its grammar was sufficient to turn the tide of opinion about the language status of ASL. Studies of various aspects of the grammar of ASL left no doubt that signers using ASL were using a real human language.

The recognition that sign languages were real human languages set off a flurry of activity in a number of academic arenas beginning in the seventies. What does the grammar of a sign language look like? Do Deaf children in Deaf families acquire a sign language in ways that parallel the acquisition of a vocally produced language by children with normal hearing? Can other primates acquire a sign language? How are various aspects of ASL related to memory? How are sign languages represented in the brain? Questions like these have captivated the imagination of growing numbers of linguists and psychologists. More and more sign languages continue to be identified and investigated as

researchers around the globe pursue answers to a wide variety of interesting scientific questions.

This book addresses the issue of how meaning is expressed in ASL. The ASL data will demonstrate that grammar is central to how signers express meaning. Beyond that, it will also demonstrate that the meanings expressed by signers exceed what a grammar is capable of encoding and that the language signal does more than encode symbolic grammatical elements. These characteristics, I will argue, are common to all languages.