

Signing

Signing arises whenever a group of people cannot use speech to communicate with each other. In these cases, gestures, particularly hand movements, become the key medium for conveying the symbolic information found in all languages. Sign languages developed, used, and learned by deaf people, particularly deaf children communicating with each other, have a very different grammar from any spoken language. It is a grammar that uses the three dimensions of space as well as stringing together separate components as happens in spoken languages (and written and signed forms developed from spoken languages).

American Sign Language provides clear examples of this. The English sentence "The girl jumps over the rope" can be translated into ASL as "ROPE, GIRL JUMP." The signing of the word ROPE will give information about whether the rope is curved (like a jump rope held by two other children) or straight. The signing of JUMP will give an indication of how vigorously or gently the girl has jumped. In the grammar of ASL adjectives are often replaced by intensifiers (often facial expressions or exaggerations of signs) that are part of a sign, morphemes layered over a basic sign rather than present as a separate word.

Not only do sign languages differ from spoken languages, they also differ from each other—sign languages, like spoken languages, are not universal. Even when signs are iconic, pictorial representations of actual objects, they will be different in different sign languages. The ASL version of "tree" is the forearm held up with all fingers out-stretched, slightly waving, reflecting a tree waving in the wind. The Danish Sign Language version reflects the same bushy top and narrow trunk as the ASL sign but does so by outlining an image of a tree with both hands rather than representing it with one hand.

The study of sign languages using linguistic tools is relatively recent. In 1960 William Stokoe began describing signs in ASL as a collection of parts. He distinguished between the place, handshape and movement of signs, arguing that these were the equivalent of phonological forms used to describe parts of spoken sounds. Changes in any one of these three variables could create a new sign. If a bent index finger is twisted at the cheek, it is

the sign for APPLE, but moved to the side of the eye this sign becomes ONION. RED is done by flicking the index at the chin while CUTE is done with the same motion but using both the index and middle fingers. The verb TO IRON, done by imitating the motion of an iron over a distance of about six inches, becomes the noun IRON when done with a much smaller repetitive movement. Today, orientation of the hands is also recognized as a key parameter when describing any sign.

A viable sign language needs a critical mass of users, but this critical mass can be achieved in a number of different way. Small communities with high degrees of hereditary deafness (a rate of 1/100 inhabitants being deaf instead of the typical 1/1000 ratio) such as found in Bhan Khor, Thailand, or (historically) Martha's Vineyard are one way to achieve this density. A second way is a network of deaf people in an urban area. In Kano in Northern Nigeria, deaf men (like their hearing Hausa counterparts) meet daily at the marketplace and communicate in the language they have developed over time. This language is known by linguists and anthropologists as Hausa Sign Language. Another circumstance, and probably the most common one, under which deaf children come together and create sign languages is in schools for the deaf, particularly boarding schools. Sign languages can develop *sub rosa*—when sign languages are banned because authorities expect children to learn to speak and lipread as part of an oral education system—or be part of a formal program.

Sign languages in school settings, particularly those openly taught, use a variety of devices to incorporate spoken or written language concepts into sign language including fingerspelling, mouthing of spoken language words, and air writing. American signers are well known for their fluent and fast one-handed fingerspelling—names, places and unfamiliar terms will be transliterated letter by letter into a signed form. Unlike signing, where each form conveys one or more meanings, fingerspelling is a reflection of written language, and each letter is meaningless in isolation. Just as there is no universal sign language, there is no universal fingerspelling alphabet. Americans inherited their one-handed alphabet from French Sign Language, brought in by Laurent Clerc in 1817, while British and Commonwealth signers use a two-handed fingerspelling alphabet. Although most deaf New Zealanders know the British two-handed alphabet, many do not use it on a regular basis. Instead (reflecting their oral schooling), they will emphatically mouth English forms that they wish to include in their conversation, sometimes pointing at the lips to let others know that an unfamiliar term was appearing. Air writing, tracing letters or characters in the air, is another way of incorporating written language into a signed conversation. It is a particularly efficient way for incorporating Chinese characters into the various versions of sign language found in China—the clear order of strokes taught when teaching characters aids perception.

The complex nature of sign languages was not recognized by the academic establishment until William Stokoe and his colleagues' work on American Sign Language became well known. This academic acknowledgement of sign language as a language has had many ramifications, including the expansion of rights of deaf people. A major complaint of the

student protestors in the "Deaf Prez Now" strike at Gallaudet in 1987 was that Elizabeth Zinsser did not know American Sign Language and therefore was not an appropriate leader. Sign languages around the world have been documented in dictionaries and grammars, leading not only to recognition of local languages but to the recognition that deaf communities have separate cultures as well. These cultures in turn are beginning to be studied in their own right by anthropologists.

(See also *body, codes, community, deaf, gesture, iconicity, identity, socialization, space, writing*)

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