

## SignWriting Terminology

by Joe Martin

SignWriting is so new, and so radically different, that the words in our ordinary vocabulary don't apply to it. When people see it for the first time they are often confused about what it is. A new language? A new alphabet? Finding the right words to explain this can be hard. Even many linguists are not familiar with the terms we need to discuss SignWriting, but such words do exist. It's important that we look for them, and that we all agree on the right words to use, because we all want to give accurate information.

We can say SignWriting is a **notation**. Notations are any system for writing things down; not only languages but also things like music scores or the  $e=mc^2$  of mathematics. If we want to limit ourselves to writing only languages, we can call the notation a **script**. Scripts are writing systems for languages, and traditionally there are three kinds. The alphabet is one kind of script, and the other two kinds are the syllabary and the logography. Since the alphabet is the only one that is familiar to most of us, it is tempting to say that SignWriting is an alphabet for writing signed languages. That, however, is not correct.

By definition an alphabet uses symbols (letters) to stand for the smallest sound segments (phonemes) of the language. The spoken language is broken up into segments, and the symbols are used to represent them. For example the four symbols <e>, <o>, <r>, and <x>, are used for the six sound-segments heard in the word "xerox." Then we use some system to relate the symbols to the order we hear the sounds.

A **syllabary** is the same as an alphabet except that instead of just sounds, the symbols stand for whole syllables, usually a consonant plus a vowel. For example the Cree language uses a syllabary. In writing Cree, the symbol < ☐ > stands for the syllable "ni" and < ☐ > stands for "pi." The Cree word for water, *nipi*, is written < ☐☐ >. The important thing is that these letters, sounds, and syllables are all what linguists call segments. This means they are sequential units that occur one after another. SignWriting does not work like this, so it is neither a syllabary nor an alphabet.

In one way SignWriting is like the third type of script, a **logography**. This type of script uses a different symbol for each word. Many of the characters used for writing Chinese are like this. Like these Chinese characters, each word written in SignWriting has its own unique form. The dictionary tells us that "character" just means any written symbol, and the term **character** seems to fit quite well for these SignWritten words. For the smaller elements that make up the

character we can keep the word **symbol**. (Technically, these smaller units are called graphs, but to avoid another new term, we can just call them symbols.) A Chinese character though, is made up of just lines and dots that have no phonetic meaning. By contrast, the handshapes, movement arrows, and other symbols that make up a SignWriting character most definitely do have phonetic values. So SignWriting is not a logography either. It is not any of the three kinds of script.

Otto Jespersen (1889) described a fourth type of script. He called it an **antalphabetic** system<sup>1</sup>. The idea was to use, not arbitrary symbols, but symbols that would show how the speech sounds are made. Any written character is composed of smaller elements like dots and lines. Speech sounds are also composed of smaller elements. They are what linguists call phonetic features--tongue placement, voicing, lip rounding. Several of these features combine to make one speech sound. Jespersen's antalphabetic script linked these phonetic features with the lines and dots of the written character. The symbols in such a script don't stand for sounds but for these smaller elements of the sounds. It takes several of these feature-symbols to make up one character. That is the definition of an antalphabetic script.

Geoffrey Sampson (1985) described some real scripts that indicate phonetic features. One is Pitman Shorthand, which uses a dark line for voiced sounds and a light line for unvoiced sounds. Which way the line slants shows where the sound is made, and the straightness of the line shows how it is made. His other example is the script used in Korea. Some of its symbols use a horizontal line for the roof of the mouth, and where a second line contacts this one shows where in the mouth the sound is made. The shape of the second line tells how the sound is made. The script adds an extra line to the symbol for the "tense aspirated" sounds that are common in Korean. A diagram of the mouth indicates sounds made with the lips.

Incidentally, notice how these symbols are not just arbitrary. Their creator designed them to be schematic diagrams of the body parts that make the sounds. Linguists find this very impressive. Because of this characteristic and because it is featural, the Korean script is often called the world's best writing system. Both these characteristics though, are much more present in SignWriting.

However, both the Korean script and Pitman Shorthand are only partly featural. Sampson cites the feature grids used by linguists as purely featural, but notes that these grids are "too cumbersome" to use as a script. He stresses that any scripts "used in real life are not really pure, textbook examples of one or another of these categories"(42). So up till now the world has had no good examples of this featural, or antalphabetic fourth type of script. Abercrombie

1967 defines it as a script that “represents each segment by a composite symbol made up of a number of signs put together”(112). This describes SignWriting perfectly. It is a featural, antalphabetic script. SignWriting is an **antalphabet**. We can say it is an antalphabet used to write signed languages, just the same as an alphabet is used for spoken languages.

A set of rules telling how to use a script for any particular language is called an **orthography**. Spanish, English and Vietnamese are all written using the same alphabetic script, but the rules are different. Vietnamese doesn't use the letter < f >; Spanish does. Spanish writes < ll >; English writes < y >. Spanish puts a question mark in front of a sentence; English puts it at the end. Each language has its own rules for how to use the script.

Different languages written with SignWriting also have different orthographies. Spanish Sign Language uses SignWriting's contact symbol. Danish Sign Language doesn't. Nicaraguan Sign Language underlines proper names. American Sign Language doesn't. These languages are written in SignWriting script, but with different orthographies.

To talk about signed languages some people still think that we shouldn't use the terms **phonetic, phonemes** or **phonology**. This is because the “phon-“ in these words came for the Latin word for “sound.” Also, many people think phonemes are sounds. This is not accurate. The phoneme is just an abstract theoretical idea, neither a sound nor anything visible. It happens that they were always expressed in sound, but there was always a theoretical possibility of them being something else. Then sign language came along, and now we see that they can be expressed in signs or sounds, and possibly even in touch.

Many people confuse phonemes and **cheremes**. Originally these were thought to be equivalents, but research has clearly shown that they are different things. Cheremes are the handshapes, movements and such that make up a sign. They happen at the same time. That's impossible for phonemes, since by definition phonemes happen one after the other. So cheremes and phonemes are two different things.

If “chereme” was going to replace a word used for speech, the word would be “**parameter**”, not phoneme. Parameters are what we use to describe vowels {height, frontness...}, consonants {manner, place...} and now signs {movement, location...}. Chereme and parameter refer to exactly the same thing, although nobody uses either one of these terms, except linguists.

ASL was recognized as a language when scientists proved it has all the levels of linguistic structure. Phonology is one of these levels, along with syntax, morphology and

phonetics. If it didn't have them, it wouldn't be a language. The terminology doesn't refer to what form the linguistic units (segments) may take, but to how they are organized. However the units may look or sound, they are organized the same way.

By now every important phonological theory has been used successfully with sign language. In other words, theories developed to describe spoken language all describe signed languages just as well. This is what we expect, since all languages have a phonological, and a phonetic, structure. There is no shortage today of papers, books, and even international conferences discussing aspects of sign language phonetics and phonology, where people use these words without any qualifications. They have become standard terms. The fact that the name "phon-" is Latin for sound shouldn't bother us any more than the fact that "phony" originally meant a gold-plated ring; or that Greenland is mostly ice.

SignWriting is an **antalphabet** that shows us the phonology of signed languages in just the same way as our alphabet shows us the phonology of speech. Its written **characters** are made up of **symbols** that show phonetic details. Like the alphabet, it is a type of **notation** and uses different **orthographies** for different languages. It is a way to read and write any signed language, just as the alphabet is one way to read and write spoken language.

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