

Spoken language, written language, images and Pictograms

It is a common misconception that the meaning of Picto images can be guessed. Images are always ambiguous. Like other written languages, Pictogram requires learning, a conscious methodology and pedagogic support.

The ability to communicate and to transfer thoughts and feelings using spoken language is something that has always characterised humanity – at least for the last 100,000 years. Written language has a far shorter history of several thousand years – maybe at most 5,000 years. All languages use a system of symbols that members of a linguistic community agree on. Spoken language uses sequences of sound and written language uses some form of graphic symbols that represent these sounds. Spoken language, our primary language, developed into written language because people needed to document linguistic assertions and to communicate these assertions over longer distances than spoken language could provide. Most modern written languages use signs or characters that correspond to the sounds a speaker uses to pronounce words. In our 26-letter alphabet, each letter represents a *phoneme*, the smallest semantically differentiated unit. By combining letters, a writer can represent the way a word sounds when uttered. This phonetic way of writing is very flexible and efficient, and nearly all words can be represented with just two or three dozen characters. The first written languages, however, were not based on this principle. Instead of using characters for the individual spoken sounds, characters, designed as simple and stylised images, represented whole words. Using an image to represent each word produced a large number of characters, a strategy that produced a very cumbersome system. It was thus a major advance when characters began to be used for parts of words. Comprised of phonemes, *morphemes* comprise the smallest part of a word that bears meaning. A word can include one or more morphemes: dog, dog-house, dogg-ed, dogg-ed-ly, etc. As with other written languages, the Chinese written language is based on this principle. Chinese comprises many thousands of characters, but about 1,000 characters are sufficient for everyday use. Even though many of these characters originally depicted objects, they are now so highly simplified and stylised that it is impossible to guess their origin. The development of the Chinese written language also comes from spoken language in that most of the characters help the reader pronounce the words.

The significance of spoken language as our primary language also stands out when considering how people learn symbols and their meanings. The development of speech normally starts during a child's very first years of life. Children largely learn new words and other spoken-language skills

implicitly as they interact with other people. Contrastingly, learning a written language requires being exposed to an explicit methodology and pedagogic support, a type of learning that requires greater intellectual resources than learning a spoken language. The difficulty of phonetic script lies in combining the sequences of sound symbols, which the written words constitute, to form a complete spoken word. People with moderate learning difficulties usually lack this ability. It is, however, common for people in this group to be able to 'read' a number of written words although this takes place through perception of the whole word as a visual symbol – an ideogram. Chinese works in approximately the same way, each character representing a morpheme, part of a word or a whole word. It is, of course, hard to learn a large number of visual characters and differentiate them if they solely comprise letters and if you also lack the ability to use them as sound symbols. It is much easier if the symbols differ in a clearer way than is the case with letter combinations. Learning is further simplified by using characters that can in some way be linked to the spoken word. The Pictogram system is designed to meet these requirements. Characters comprise black and white drawn images designed to help facilitate mutual differentiation and to provide support for learning a word the characters symbolise. The function of Picto images as symbols for written language presupposes agreement with a symbol's meaning, a convention that can only be learned by being exposed to other speakers. It is a common misconception that the image as such makes it possible to skip this learning phase and guess which word is symbolised. But images are always ambiguous. With their special design, Picto images help people learn the meanings of symbols and thus achieve the agreement required in a linguistic community. In part, this is achieved using consistent design principles and including only essential information. It is sometimes asserted that by virtue of their high degree of stylisation Picto images demand too much abstraction. This is a misconception that probably results from a lack of clarity about the function of Picto images as learned linguistic symbols. It is the user's ability to handle abstract concepts with the aid of their spoken language that sets the parameters, not the symbols' visual implementation. The Pictogram system has been used for many years, and it is constantly developing on the basis of experiences and new requirements. Currently, the Pictogram uses combinations of pictorial symbols to represent compound words. This paves the way for a very interesting development, maybe towards a more developed morpheme-based written language like Chinese.

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