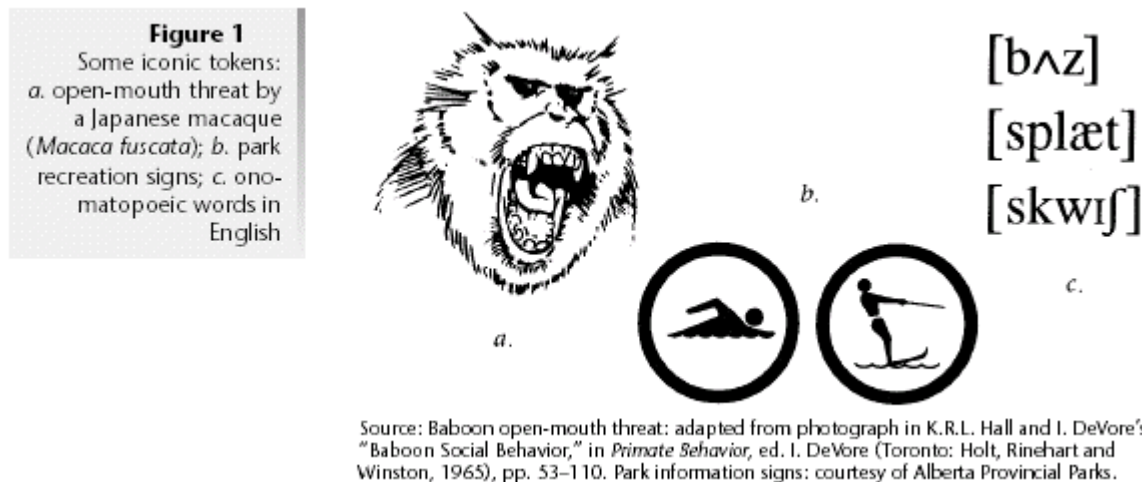


## Types of signs

### Iconic signs

**Iconic signs**, or **icons**, always bear some resemblance to their referent. A photograph is an iconic sign, as is a stylized silhouette of a female or a male on a restroom door. A baboon's open-mouth threat is iconic, resembling as it does the act of biting. Onomatopoeic words like *buzz*, *splat*, and *squish* in English and their counterparts in other human languages are also iconic in that they somewhat resemble what they signify. Because of this inherent resemblance to these referents, icons are considered nonarbitrary signs (see Figure 1).



Icons are widespread in the communication systems of all animals. Many postures and gestures that are critical to animal communication are iconic, as are the postures and gestures used by humans. Human linguistic communication, however, does not make extensive use of iconic signs.

### Indexical signs

An **indexical sign**, or **index**, fulfills its function by "pointing out" its referent, typically by being a partial or representative sample of it. Indexes are not arbitrary, since their presence has in some sense been caused by their referent. For this reason it is sometimes said that there is a causal link between an indexical sign and its referent. The track of an animal, for example, points to the existence of the animal by representing a part of it. The presence of smoke is an index of fire.

Most important for our discussion here is a specific kind of indexical sign called a **symptomatic sign**, or **symptom**. Symptomatic signs spontaneously convey the internal state or emotions of the sender and thus represent the sender in an indexical

manner. For example, the fact that our body temperature rises when we are ill is a spontaneous reflection of our internal state. When someone steps on our foot and we cry out, the cry is a spontaneous reflection of our internal state (surprise and pain) and thus constitutes a symptomatic sign.

Since symptomatic signs are spontaneous, we do not consider them to be deliberately selected by the sender for purposes of communication. We do not choose to cry out in pain in the same way as we might, for example, decide to call our dwelling place a *house*, *home*, *dwelling*, or *residence* in the appropriate circumstances. Since senders do not deliberately choose to transmit the sign, the message is assumed to be essentially beyond their control. As forms of communication, symptomatic signs are therefore used primarily by the receiver of a message to assess the internal state of the sender.

## Symbolic signs

**Symbolic signs** bear an arbitrary relationship to their referents and in this way are distinct from both icons and indexes. Human language is highly symbolic in that the vast majority of its signs bear no inherent resemblance or causal connection to their referents, as the words in Figure 2 show.

<b>Figure 2</b> Arbitrary sound- meaning correspon- dence in language	tako	=	?
	mazə	=	?
	talo	=	?
	kum	=	?
	berat	=	?

No phonological property of the words in Figure 2 gives you any hint as to their possible meaning. (*Tako* means ‘octopus’ in Japanese, *mazə* is ‘forest’ in Kabardian, *talo* is ‘house’ in Finnish, *kum* means ‘sand’ in Turkish, and *berat* means ‘heavy’ in Indonesian.)

We encounter many other symbolic signs in everyday life. The octagonal shape of a stop sign is symbolic—it bears no inherent connection with the message it helps to communicate. The colors used in traffic signals are symbolic as well; red has no more inherent connection with the act of stopping than yellow.

## Mixed signs

Signs are not always exclusively of one type or another. Symptomatic signs, for example, may have iconic properties, as when a dog spontaneously opens its mouth in a threat to bite. Symbolic signs such as traffic lights are symptomatic in that they reflect the internal state of the mechanism that causes them to change color. Still, we

classify a sign according to its major property: if it resembles its referent, it is iconic; if it is linked to its referent in some causal way or represents it partially in some nonarbitrary way, it is indexical (and symptomatic if it spontaneously expresses some internal state); and if its relationship to its referent is arbitrary, it is a symbol.

## **Signals**

All signs can act as **signals** when they trigger a specific action on the part of the receiver, as do traffic lights, words in human language such as the race starter's "Go!" or the warning calls of birds. Typically, a signal releases more energy in the receiver than it takes for the transmitter to send it. For example, the simple release of a mating pheromone into the wind by a female moth (a symptomatic sign and also a signal) can cause the male to fly as much as six kilometers in search of her. Signals are very common in animal communication, but only a limited subset of human linguistic activity consists of signaling.