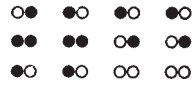


Nonverbal Communication

Spoken language—speech—is by far the most common and important means by which humans communicate with one another, but it is not the only one. The many different writing systems used throughout the world are of tremendous importance for communication, having in some respects an advantage over spoken language, especially their relative permanence.

The term *nonverbal communication*, taken literally, refers to the transmission of signals accomplished by means other than spoken or written words. Not everyone agrees on what the term encompasses, and some even question whether nonverbal communication is definable. Used broadly, the term includes bodily gestures, facial expressions, spacing, touch, and smell, as well as whistle, smoke-signal, and drum “languages,” and such optional vocal effects as those that accompany spoken utterances and can be considered apart from actual words.

Nonverbal systems of communication may be divided into those that are derived from spoken language and those that are independent of it. With only a few exceptions, writing systems belong to the first category, representing as they do the sounds of speech. In turn, writing systems may serve as the source of other systems. The English word written as *tree* can be transmitted in the International Morse Code by audible or visual signals as $- \cdot - \cdot \cdot$, with $-$, $\cdot - \cdot$, and \cdot representing respectively the letters *t*, *r*, and *e*. Similarly, the braille alphabet, a system of writing for the blind, makes use of raised dots within a 2×3 matrix. The different arrangements of raised dots (•) represent the letters of the alphabet, as in



corresponding to *t*, *r*, *e*, *e*.

Other systems of communication that are based on speech are drum and whistle “languages,” which imitate some of the reproducible distinctive features of the spoken languages along with which they are used.

Some sign languages are independent of speech. Because some *are* independent, it was possible for the Plains Indians to use sign language as a means of effective communication among tribes speaking different, and many times even unrelated, languages.

Another way of classifying nonverbal communicative systems is according to channel, or the medium by which signals are conveyed. The channel employed in drum “language” is acoustic, whereas sign language or smoke signals use the optical channel. Individuals who are blind make use of touch when they feel the raised dots of the braille system, and those who are deaf as well as blind may learn to monitor articulatory movements by placing a hand on the speaker’s face and neck (Tadoma method). The olfactory channel is not used in the highly structured manner of the channels just mentioned, but it should not be underestimated: As a rule, Americans do not indulge in eating fresh garlic before a social occasion or an important business engagement for fear of sending the wrong signals.

For the most part, human communication is a multichannel affair operating on verbal and nonverbal levels. Regardless of the society, it is not only how people talk and what they say but also how they present themselves to others that seems to make a difference as to how they are perceived. The study of the properties of signs and symbols and their functions in communication is referred to as **semiotics**. Because of the increasing attention given to all modes of communication in humans and other animals, the field of semiotics has been steadily growing in volume and popularity. Among the subfields of semiotics are biosemiotics, the semiotic study of living systems; semiotics of food because the preparation of food transforms its meaning and also because certain foods can be symbolic of specific social codes; and social semiotics, which includes the interpretation of such cultural codes as fashion and advertising.

Paralinguistics

Characteristics of vocal communication considered marginal or optional and therefore excludable from linguistic analysis are referred to as **para-language**. The most common paralinguistic features are usually assigned to three categories.

Voice qualifiers have to do with the tone of voice and pacing of speech, and they include variations in volume or intensity (for example, overloud, oversoft), pitch (noticeably high, noticeably low), tempo (overly fast, overly slow), and articulation (for example, drawling, clipping, or rasping).

Besides these and other voice qualifiers, there are various **voice characterizers** that accompany speech or, more precisely, through which one talks. These range from laughing and giggling to crying and sobbing to yelling, moaning, groaning, whimpering, and whining.

And then there are the so-called *vocal segregates*, represented for the most part by such extralinguistic sounds (that is, sounds not part of the phonemic system) as the ones graphically represented in English texts as *uh-huh* to indicate agreement or gratification, *uh-uh* to indicate disagreement, *tsk-tsk* to express mild disapproval, and other graphic approximations of different kinds of snorts and sniffs.

Here are some concrete examples of paralinguistic behavior: Highly controlled articulation produces the crisp, precise pronunciation expected of formal pronouncements addressed to large audiences; by contrast, speech so relaxed as to become slurred is heard from those who are very tired, sleepy, or under the influence of alcohol or other drugs. Speakers of English and other languages tend to associate extreme pitch variation with happiness and surprise; high pitch level or fast tempo with fear, surprise, or anger; and low pitch level or slow tempo with boredom and sadness. The rounding of lips imparts to the voice the cooing quality that is frequently used by adults when talking to a baby.

As an additional example, consider whispering. A person may whisper to avoid waking up others who are napping or sleeping (an example of thoughtful behavior); to avoid being overheard (consideration of privacy); to convey a secret or a conspiracy; or to spread rumors of an intimate nature about someone (hence the phrase “whispering campaign”).

In the discussion of speech, one may be tempted to consider silence, or forbearance from speech, not worth mentioning. However, that would be a

mistake. Depending on the context, silence can indicate a variety of meanings or feelings. In a tense situation, silence can be threatening if it is used deliberately instead of an appeasing remark; by contrast, it may help to lessen tension by withholding a comment that could worsen a situation. Silence may also express one's uncertainty concerning an issue, or help to avoid an argument. It may be a gentle substitute for saying "no," as when a young man asks "Will you marry me?" and no response is forthcoming. Some of these and other uses of silence are by no means universal; they may vary somewhat, or even quite deeply, from culture to culture.

Kinesics

Just as any speech that is not neutral tends to be accompanied by one or more paralinguistic features, it is also likely to be supplemented by visual gestures. This is the subject of **kinesics**, the study of **body language**.

There is no question that bodily gestures (in the broadest sense) serve as an important means of communication. Comedians are notably adept at slanting, canceling, or completely turning around the meaning of their spoken lines with a well-chosen grimace or gesture of different communicative content, and professional mimes know how to move their audiences to tears or laughter without uttering a single word. But speech-related body motions are by no means limited to performers—they are an integral part of everyone's daily communicative activity.

The basic assumptions that underlie kinesics is that no body movement or facial expression is likely to lack meaning because, just like other aspects of voluntary human behavior, body movements, posture, and facial expressions are patterned and occur together. For example, accidental meetings of good male friends are commonly characterized by a brief raise of hand first, then a firm handshake, a brief rising of eyebrows, and a smile.

Influenced by structural linguistics, Ray L. Birdwhistell (1918–1997) in the 1950s developed a method of studying and describing the body-motion aspects of human communicative behavior by means of units that parallel those employed in linguistic analysis. One such unit, the **kineme** (analogous to the phoneme), has been defined as the smallest discriminable contrastive unit of body motion.

Students of kinesics take note of several basic components, all of which are associated: facial expression, eye contact, body posture, and hand gestures.

Facial expressions signal a wide range of emotions from pleasure, happiness, and pleasant surprise to suspicion, sadness, fear, anger, disapproval, or disgust—to list only the most common feelings.

The nature of eye contact between people in face-to-face interaction varies not only from culture to culture but also within the same society (particularly such a large society as our own) from one individual to the next according to the experience, age, self-confidence, and intentions of the communicator. Eye contacts therefore range all the way from avoidance to the look of a person who is in love.

Types of hand gestures are too many to classify in this brief survey, and two are mentioned to illustrate. One purpose they serve is to emphasize what is being said and, two, handshaking as a greeting can be accomplished in a variety of methods. The hands can be combined together in various ways, and one's second hand can be used to impart emphasis to the handshake with one hand. Handshaking may be elevated to hand clasping, arm clasping, shoulder clasping, or shoulder embracing. All these gestures involve touching behavior, and that is culture-specific.

Body posture conveys the individual's attitude to the face-to-face interaction he or she is participating in: It can signal feelings ranging from interest, concern, or anticipation to boredom, depression, or impatience. During some ritual occasions, of course, specific body postures are expected or required—for example, kneeling, standing, or bowing.

Observant travelers noticed centuries ago that members of societies along the Mediterranean Sea used many more bodily gestures and facial expressions than, say, those living in Scandinavia or Japan. However, not all Italians, for example, use the same "body language," just as they do not all speak the same dialect of Italian. Birdwhistell offered an interesting example in support of the expectation that kinesic behavior is likely to be just as culture-specific as the corresponding language. He reported that even when the sound is removed from films made back in the 1930s and 1940s of the speeches of the late politician and mayor of New York City Fiorello La Guardia, it is possible to tell whether he is speaking English, Yiddish, or Italian, as characteristic body motions are associated with each language (Birdwhistell 1970:102). Although the holistic and contextual approach to communication that Birdwhistell advocated has been uniformly accepted, the extent to which "body language" can be analyzed in terms of his units remains controversial, in part because the detailed transcription he designed is far too complicated and time-consuming.

TABLE 5.1 The Four Distance Zones of Informal Interpersonal Space Among Middle-Class Americans of North European Heritage

<i>Distance Zone</i>	<i>Physical Distance (approx., in feet)</i>	<i>Acoustic-Auditory Channel</i>	<i>Olfactory Channel</i>
Intimate			
Close	0-.5	grunts, groans	
Far	.5-1.5	whispers or very low voice	
Personal			
Close	1.5-2.5	soft voice	almost all odors
Far	2.5-4	moderate voice	disapproved of
Social-consultative			
Close	4-7	normal voice	almost all odors
Far	7-12	louder voice	disapproved of
Public			
Close	12-25	loud voice	almost all odors
Far	25+	full-volume voice	disapproved of

Source: Adapted from *The Hidden Dimension* by Edward T. Hall. Copyright © 1966, 1982 by Edward T. Hall. Used by permission of Doubleday, a division of Bantam Doubleday Dell Publishing Group, Inc.

Proxemics

In the early 1960s, the interdependence between communication and culture stimulated Edward T. Hall to develop **proxemics**, the study of the cultural patterning of the spatial separation individuals maintain in face-to-face encounters. The term has subsequently come to embrace studies concerned with privacy, crowding, territoriality, and the designing of buildings, private as well as public, with the view of meeting the different cultural expectations of their prospective users.

According to Hall, the distances individuals maintain from one another depend on the nature of their mutual involvement and are culture-specific. For example, under normal circumstances, middle-class American adults of northern European heritage make regular use of four **proxemic zones**, or distances, ranging from intimate to public, each of the zones consisting of a close and a far phase (see Table 5.1).

In the close phase of the intimate distance, the individuals are close enough to be encircled by each other's arms. All senses are engaged: Each individual receives the body heat as well as any odor or scent emanating from the other individual, and the other person's breath is felt; because of the

closeness, vision may be blurred or distorted and speaking is at a minimum. As is obvious, this narrowest of all interpersonal distances is suited to love-making, protecting, or comforting.

By contrast, business is transacted at the social-consultative distance: The close phase is characteristic of contact among people who work together or are participants at casual social gatherings; the far phase characterizes more formal business transactions, such as interviews or situations in which two or more people find themselves in the same space and do not want to appear rude by not communicating. For instance, receptionists who are also expected to type and manage a switchboard must have enough space between them and the visitors to permit them to work rather than to feel they must engage in polite conversation with those waiting to be seen.

The manner in which members of different societies space themselves in each other's presence varies along a contact-noncontact continuum. For example, Arabs, other Mediterranean peoples, and Latin Americans prefer spatially close interactions; northern Europeans prefer to keep their distance, literally and figuratively (see Box 5.1).

However, some differences in proxemic and **haptic** behavior (haptic behavior relates to the sense of touch) may be noticeable even among members of societies who live in close proximity. According to a recent study, Dutch dyads (two individuals) maintain greater distances than French and English dyads. And one would be justified in undertaking a study to determine whether people born and raised in southern France have the same proxemic and haptic behaviors as those who have grown up and made their homes in northern France.

Without being acquainted with Hall's proxemic matrix, people are aware when someone encroaches into their personal zone, or into the zone of someone for whom they think they have a special claim. An example of the latter would be a young male seeing his girlfriend being spoken to by another young male who is using the close personal zone that touches the intimate zone. The male who feels "threatened" is likely to join the talking couple to alter the proxemic situation.

Finally it should be mentioned that personal space is occasionally modified by the conditions imposed by the physical situation in which people find themselves. For example, the fixed spacing of classroom desks may not be the most proxemically satisfactory for the thousands of foreign students who study in the United States.

BOX 5.1 HALL ON PROXEMICS IN
A CROSS-CULTURAL CONTEXT

In Latin America the interaction distance is much less than it is in the United States. Indeed, people cannot talk comfortably with one another unless they are very close to the distance that evokes either sexual or hostile feelings in the North American. The result is that when they move close, we withdraw and back away. As a consequence, they think we are distant or cold, withdrawn and unfriendly. We, on the other hand, are constantly accusing them of breathing down our necks, crowding us, and spraying our faces.

Americans who have spent some time in Latin America without learning these space considerations make other adaptations, like barricading themselves behind their desks, using chairs and typewriter tables to keep the Latin American at what is to us a comfortable distance. The result is that the Latin American may even climb over the obstacles until he has achieved a distance at which he can comfortably talk.

*from Edward T. Hall, *The Silent Language* (1959), 209*

Many Americans feel that [older] Germans are overly rigid in their behavior, unbending and formal. Some of this impression is created by differences in the handling of chairs while seated. The American doesn't seem to mind if people hitch their chairs up to adjust the distance to the situation—those that do mind would not think of saying anything, for to comment on the manners of others would be impolite. In Germany, however, it is a violation of the mores to change the position of your chair. An added deterrent for those who don't know better is the weight of most German furniture. . . . To a German, light furniture is anathema, not only because it seems flimsy but because people move it and thereby destroy the order of things, including intrusions on the "private sphere." In one instance reported to me, a German newspaper editor who had moved to the United States had his visitor's chair bolted to the floor "at the proper distance" because he couldn't tolerate the American habit of adjusting the chair to the situation.

*from Edward T. Hall, *The Hidden Dimension* (1966), 129*

Whistle "Languages"

Among the various systems of nonverbal communication, of particular interest are those speech surrogates that depend on and are derived directly from spoken language. Some of these "languages" are produced in the vocal tract—the so-called **whistle speech**.

Whistling as a means of serviceable communication is not very common, but it is known to occur in such widely separated areas of the world as Myanmar (formerly Burma), Mexico, the Canary Islands, the French Pyrenees, Cameroon, and New Guinea. One of the better-known instances of whistle speech concerns the Mazateco Indians of northern Oaxaca, Mexico. The language of the Mazateco is a tone language, one in which relative variations in pitch are used to distinguish words of different meanings that would otherwise sound alike. There are four distinctive pitch levels, or tonemes, in Mazateco, ranging from high, 1, to low, 4, with two intermediate tonemes, 2 and 3; when two different tones are associated with one syllabic nucleus, they form a glide. Accordingly, the speakers of Mazateco distinguish between *te*¹ 'he will dance,' *te*² 'he dances,' *te*²⁻³ 'I dance,' *te*⁴⁻³ 'wide,' *te*³ 'ten,' *ni*³*nto*² 'slippery,' *ni*⁴*nto*³⁻⁴ 'pimple,' *ni*³*nto*³ 'mountain,' and so on (Pike and Pike 1947:88).

Under special circumstances, as when the distance between two Mazateco men is too great for them to shout, they use whistle speech. By reproducing, with a few modifications, the four tonemes and other whistleable features (glides, different types of syllabic units, and pauses), they are able to carry on an effective conversation concerning a variety of topics. The following exchange was observed by George M. Cowan (1948), to whom we are indebted for the description of Mazateco whistle speech: A Mazateco standing in front of his hut whistled to another man a considerable distance away on a trail below. After several exchanges in whistle talk, the man on the trail turned around and walked up to the hut with the load of corn leaves he had been carrying to market. At the hut, he dumped his load on the ground and received some money from the first man. The entire transaction, including the customary bargaining over price, had been carried on exclusively through whistling.

Although Mazateco women do not whistle, they understand whistle talk. In addition to overcoming distance in the hilly terrain in which these people live, whistling is used to attract the attention of another person by sounding his name or to exchange information without interfering with a simultaneous

oral conversation carried on by elders. Even though in principle there are no limitations on what can be signaled by whistling, identical tonal patterns can give rise to ambiguities or confusion. However, the subject that is communicated by whistling is usually easily identifiable from the context.

Whereas Mazateco whistle speech makes use of the prosodic features of the language from which it derives, the whistle speech employed on La Gomera, one of the Canary Islands, is based on articulations. The reason for the development of the *silbo* (Spanish for *whistle*), as it is called, is apparently the island's rugged terrain, which alternates between mountains and gorges. According to André Classe (1957), accomplished users of the *silbo* can be heard and understood over a distance of three miles, and perhaps even more.

The native language of the inhabitants of La Gomera is a dialect of Spanish. Many members of the island's peasant class, men and women, are proficient in the *silbo* by the time they have reached their teen years. The whistled sounds approximate the sounds of the spoken language, making the *silbo* in effect whistled Spanish. Whether or not the whistler uses one or two fingers in the mouth, the dorsal part of the tongue is the only active articulatory organ. Because Spanish is not a tone language, whistled vowels can be differentiated by varying pitches, and most of the consonants of the relatively simple sound system of the spoken language are heard as modifications of the whistled vowels that come before or after them.

Communicative whistling is closer to home than most of us may realize. What we are referring to is the so-called wolf whistle. Typically it was a two-toned whistle, with the second tone a falling guide, sounded by a boy or man to express his appreciation of a girl or woman nearby. Although not as popular as it was a few decades ago, it is still a signal recognizable by most Americans.

That the whistling by the Mazateco and the people of La Gomera is so effective is excellent proof of the high redundancy that characterizes all natural languages: Even when some features are eliminated from the code, there is no appreciable loss of essential information.

Sign Languages

Signing, that is, communicating manually by **sign language** of some kind, is undoubtedly at least as old as speech. From the writings of ancient Greeks and Romans, we know that their deaf made use of signs. It is, however, rea-

sonable to assume that even among the earliest humans those who were not able to communicate orally would have used their hands to make themselves understood. Sign languages used to the exclusion of spoken language—for example, by people born deaf—are referred to as **primary**. Sign languages found in communities of speaker-hearers as regular or occasional substitutes for speech are termed **alternate** sign languages.

For many years, scholars neglected the study of sign languages, considering them as little more than crude substitutes for speech. Serious attention to sign languages dates back to the late 1950s; it was accompanied by renewed interest in the sign language of the Indians of the Great Plains.

In the United States, the hearing-impaired use a combination of two signing systems. One is the manual alphabet, which is made up of signs representing the twenty-six letters of the English alphabet and the ampersand (&). It is fingerspelled, using one hand only, and both the sender and receiver must be acquainted with the orthography of the language. (By contrast, the signs of the manual alphabet used in Great Britain and Northern Ireland are made with both hands.) In the other signing system, sign language proper, a particular sign stands for a concept, or, to put it in terms of spoken language, a word or a morpheme. A number of sign languages are in use in English-speaking countries, most involving some modification of either American Sign Language (ASL or Ameslan) or British Sign Language (BSL). Ameslan offers its users more than 5,000 signs, with new ones coined as needed. It makes use of three-dimensional sign space that forms a “bubble” about the signer extending roughly from the waist to the top of the head and outward from the extreme left to the extreme right as far as the signer can reach. Within the sign space, the user can specify time relationships, distinguish among several persons being signed about, signal questions and embedded clauses, and express a variety of grammatical categories such as plurality and degree (as in *good*, *better*, *best*) as well as aspectual differences of a verbal action such as habituality, repetition, intensity, and continuity. Head tilt, eyebrow and lip configuration, and other body motions are frequently used to add to the expressive capacity of manual gestures.

Fluent use of signs can match the speed of an unhurried conversation, as can be seen from television programs in which speech is being translated into ASL for viewers who are hearing-impaired. Finger spelling is considerably slower, but it is indispensable for proper names or concepts for which there are no signs (for example, chemical substances).

There are many different manual alphabets, just as there are many different writing systems; further, sign languages proper vary internally and among themselves, just as do the dialects of a spoken language and as one spoken language differs from another. Regardless of the particular sign language used, the majority of signs are not transparently **iconic**, that is, they cannot be interpreted by those who have not first learned their meanings.

If primary sign languages function much like spoken languages, do they also have duality of patterning, that is, are they analyzable at two levels of structural units comparable to phonemes and morphemes? According to William C. Stokoe Jr. (1960), who devoted many years of study to the sign language of the American deaf, Ameslan grammar has the same general form as the grammars of spoken languages. It is characterized by a small set of contrastive units meaningless in themselves (**cheremes**, on the analogy with phonemes) that combine to form meaningful sign units, the morphemes. Chereme refers to a set of positions, configurations, or motions that function identically in a given sign language. And each morpheme of a sign language may be defined according to hand shape, orientation of the palm and fingers, place of formation, movement and its direction, point of contact, and other spatial and dynamic features. Users of Ameslan and other natural sign languages are no more aware of cheremes than users of spoken English are of phonemes.

To sum up, contrary to popular misconceptions, primary sign languages used by the deaf are highly structured, complete, and independent communicative systems, comparable in complexity to spoken and written languages; otherwise they could not substitute for spoken languages as effectively as they do. Furthermore, they are natural languages in the sense that their acquisition is the automatic result of interaction with others who depend upon signing.

Alternate sign languages take a variety of forms, ranging from occupational sign languages, such as the one developed by sawmill workers in the northwestern United States and western Canada, to the performance sign language employed in the classical Hindu dance tradition to monastic sign languages that make it possible for the members of orders who use them to observe the self-imposed rule of silence. The best-known alternate sign languages, however, are those used by the aboriginal peoples of various parts of Australia, and especially the system of signing developed by the tribes of the North American Plains, the most elaborate in the New World.

For the earliest mention of sign language in North America we are indebted to Pedro de Castañeda de Nájera, the most widely read chronicler of the 1540–1542 Coronado expedition to what is today the U.S. Southwest. His report described an encounter of the Spaniards with what probably was a band of Apaches (he referred to them as Querechos) along the present-day New Mexico-Texas border:

These people were so skillful in the use of signs that it seemed as if they spoke. They made everything so clear that an interpreter was not necessary. They said that by going down in the direction in which the sun rises there was a very large river, that the army could travel along its bank through continuous settlements for ninety days, going from one settlement to another. They said that the first settlement was called Haxa, that the river was more than one league wide, and that there were many canoes. (Hammond and Rey 1940:235–236)

Although frequently mentioned in the travel accounts of the early explorers west of the Mississippi, Plains Indian sign language has not yet received the attention it deserves, particularly as there remain only a very few individuals who are still proficient in it.

For a score of nomadic tribes whose spoken languages were either completely unrelated or related but mutually unintelligible, Plains Indian sign language is known to have been an effective means of intertribal communication in trade and other negotiations. Moreover, it was commonplace for members of a tribe to recount their war exploits or to “narrate” a long traditional tale exclusively by means of manual signs, and it is a matter of record that the Kiowa Indians gave General Hugh Lenox Scott a detailed account of their sun dance ceremony by using signs. Plains Indian sign language consisted of a large repertory of conventionalized gestures performed with one or both hands. The hands were either held stationary in various configurations or moved between the levels of just above the ground to over the signer’s head. For example, to sign *snow* or *snowing*, both hands were extended in front of the face, all ten fingers pointing downward, and then lowered in whirling motions. Abstract concepts were conveyed with equal facility. The concept of *cold* or *winter* was conveyed by clenched hands with forearms crossed in front of the chest, accompanied by shivering movements. The idea of *badness* was indicated by a motion suggesting something being

thrown away: The right fist held in front of the chest was swung out and down to the right as the hand was opening up.

Although the bulk of the signs must have been shared by the tribes of the north-central Plains, there were no doubt “dialectal” differences similar to those found in widely extended spoken languages. Unlike the whistle “languages,” however, sign languages are independent of speech even though they have occasionally been used in combination with it. Only in manual alphabets is there a connection: A manual alphabet represents the elements of a writing system that in turn derives from speech.

Summary and Conclusions

Although spoken language is undoubtedly the oldest and most efficient means of human communication, there are many other ways in which people transmit or exchange information. Information, emotions, and feelings, in addition to writing, can be transmitted nonverbally. Nonverbal systems of communication are based on either spoken or written language, or are independent of it.

The Morse Code and braille derive from the written representation of a language; whistle “languages,” by contrast, are based on certain acoustic features of speech. Vocal communication is invariably enhanced or modified by so-called paralinguistic features, such as extra loudness, whispering, or sounds other than those of normal speech. Body language includes facial expressions, hand gestures, and other body motions. Hearing-impaired individuals make use of sign systems that are very nearly as efficient and expressive as spoken languages. The Plains Indians of North America used an elaborate sign language to communicate with members of other Plains tribes whose languages they could not understand; and by means of signs, they were even able to tell very long and elaborate traditional myths.