

Introduction

At its core, the professions of communication sciences and disorders are based on communication, language, speech, and hearing. This chapter will briefly define each of these topics and explain their relationships. How communication is affected by culture is also introduced.

Communication

Any exchange of information between people using a common code, or symbol system, understood by those involved.

What Is Communication?

Communication is any exchange of information between people using a common code, which may involve words, gestures, behaviors, signs, symbols, or sounds—in short, any symbol system understood by those involved. More specifically, communication is the interchange of ideas, feelings, stories, actions, events, and experiences. Human communication relies on a variety of modes, including speech, print, sign language, Braille, codes (e.g., Morse code or semaphore signals), silence, facial expressions, body postures, and gestures. Art forms such as drama, music, literature, poetry, and dance are examples of communication, albeit not always understood or agreed upon by everyone.

Communication always takes place within some sort of context, which can range from the immediacy of face-to-face conversation to the distance of reading a text written hundreds of years ago. Each communicative context influences such things as:

- How close to stand to another person when conversing (this varies by social situation and the relationship between the participants)
- The degree of formality to use during the communicative interchange (this is influenced by the mode of communication used and by the relationship between the participants)
- The purpose of the communicative interchange
- The intent of the participants
- The number of participants and their relationships

Communication in every cultural group depends on what Bates (1976), in a well-known book describing the social underpinnings of communication, described as a conversational code of conduct, or an unspoken system that seems to govern communication. This conversational code is summarized in Study More 1.1. In her research, Bates determined that,

Study More 1.1

Conversational Code of Conduct

- | | |
|--|---|
| <ul style="list-style-type: none"> • Cooperate with your conversational partner. • Tell the truth. • Offer only information you assume to be new and relevant to your listener. • Request only information you sincerely want to have. | <ul style="list-style-type: none"> • Provide your listener with just the right amount of background information so he or she will understand your point. • Be unambiguous. • Change your language to fit the current social situation. |
|--|---|

Source: Bates (1976)

Introduction to Communication Sciences and Disorders

across cultures, communication depends on people following this code of conduct, while at the same time systematically violating it.

Although this code of conduct exists across cultural groups, each group interprets it in its own unique way, which carries implications for what is considered a communication disorder, a topic addressed in later chapters. For instance, if a person from a culture in which conversational partners stand closer than 18 inches were to stand that close to a person from a culture in which the partners stand farther away, each might think the other is violating what they perceive as the socially accepted “distance” rule. Similarly, if a person from a cultural group that uses informal address for elders addresses an older person by his or her first name, the elder might think the other person is violating the socially accepted polite form for addressing an elder.

Communication also involves violating the code, again depending on practices the cultural group has developed throughout its history. For instance, engaging in a debate violates the dictum “Cooperate with your conversational partner.” Saying “Fine” when someone asks how you are and you feel terrible violates the dictum “Tell the truth.” So does telling what are called “white lies,” lies considered unimportant and used to be tactful or polite. You’ll see in later chapters how, when they are first learning language, children act as if the code is inviolate, and they only gradually develop the ability to use the socially appropriate violations practiced by their cultural group.

Gestural Communication

Gestural communication usually refers to the facial expressions and the body postures, poses, and movements people use to impart information. (*Information* is used here to mean ideas, feelings, thoughts, emotions, facts, hypotheses, experiences, etc.) In English speakers, tilting one’s head a certain way, for instance, might be used to convey doubt or humor, especially when combined with raised eyebrows and pursed lips. Romance language speakers indicate slight differences of meaning through the tilt of their heads and the thrusting of their chins.

One way to think about gestural communication is to examine the list of gestures associated with various parts of the body, shown in Study More 1.2. Although cultural groups vary significantly in the meanings they assign to gestures, all groups incorporate the body in communicative interchanges. Combined with vocal inflections, tone of voice, loudness, speech rate, and pitch, gestural communication contributes significantly—approximately 70 percent—to every communicative interchange.

It is important to note that sign languages are not simply gestural—they rely on postures; movements; and orientations of the head, face, arms, shoulders, trunk, arms, and hands. That is, they use gestures, but the gestures are codified into a symbol system just like a spoken language is codified into a symbol system. For this reason, sign languages are considered languages rather than forms of gestural communication.

Oral Communication

Oral communication, often referred to as spoken language, refers to the speech sounds people combine into the larger units we recognize as words and sentences. These speech sounds are

Study More 1.2

Gestures Associated with the Body

Head	
Head tilt	
Chin tilt	
Head shaking	
Head nodding	
Face	
Forehead wrinkling	
Eyebrow raising/lowering	
Eyes narrowing/widening	
Nose wrinkling	
Nose wriggling	
Mouth	
Lips compressing	
Lips pulled upward at the edges (smile, grin, laugh)	
Lips pursing	
Lips folded inward	
Upper lip raised on one side (sneering)	
Lips pulled downward at the edges	
Lips used to make “raspberry” sound	
Chin	
Chin wrinkled	
Chin thrust upward	
Chin pulled inward and down	
Chin wagged side to side	
Chin wagged front to back	
Neck	
Neck tensing	
Neck bent to one side (sometimes with raised shoulder)	
Shoulders	
Shoulders raised	
Shoulders drooped	
One shoulder raised	
Shoulder(s) moved forward/backward	
Trunk	
Chest puffed out	
Chest pulled in	
Trunk turned toward/away from listener	
Trunk bent forward/backward/sideways at waist	
Pelvis tilted forward/backward/sideways	
Legs	
Hip cocked	
Knees straight/bent	
Ankles straight/bent	
If sitting: knees together/apart	
If sitting: legs crossed at knee/ankle on knee	
Feet	
Foot (feet) still/tapping	
Feet parallel/at an angle to each other	
If sitting: still/tapping/circling	
If sitting: ankles straight/bent	

ordered in particular ways—differently in each spoken language—so that those speaking any given language can extract particular meanings. For instance, Spanish speakers know that *curandera* means *shaman* (feminine), while for Yup’ik speakers (people living in the village of Tuntutuliak, in southwestern Alaska) the word for *shaman* is *angalkut*. In French, *shaman* is *sorcier* or *invocateur*. All three languages include a word that means roughly the same thing, yet the speech sounds used in each are significantly different.

Introduction to Communication Sciences and Disorders

Ideographic

A set of written characters that symbolize ideas without indicating the pronunciation of the words represented.

Syllabary

A set of written symbols that represent syllables.

Pictographic

Symbols that somewhat resemble the units of experience they represent.

Written Communication

Written communication, a more recent development historically than spoken communication, refers to the written or printed symbols used to represent spoken language. The symbol systems used in written communication include the alphabetic system used in English; the **ideographic** system used in Chinese and some other Asian languages; the **syllabary** systems used in the hiragana and katakana syllabic scripts of Japanese; and **pictographic** systems, such as those represented along the Rio Grande river in New Mexico and Utah. These written communication systems emerged from spoken language and are used in correspondence with the spoken languages they represent.

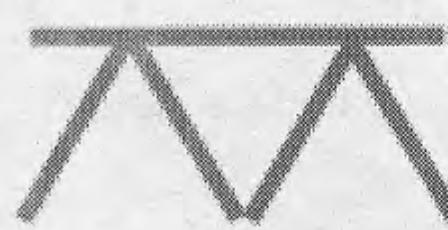
Written communication systems have also been invented to assist people who cannot speak. Some severely communicatively impaired children and adults use such symbols in communication boards. An example of one such system is Blissymbolics, which uses symbols that are both ideographic and pictographic. Both symbol types are illustrated in Figure 1.1.

Codes

Codes are symbol systems based on numbers, letters, symbols, icons, pictures, and/or sounds. The most common codes used today are alphanumeric. Alphanumeric codes combine numbers and letters and are often used as computer and Internet passwords. Computer encryption systems usually use random number strings of varying lengths, longer ones being more difficult to decode. Morse code is an example of a sound-based communication code, while football

Figure 1.1

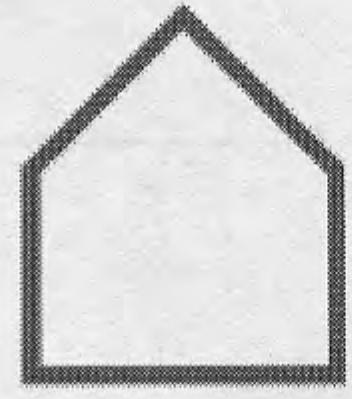
Ideographic and Pictographic Blissymbolics



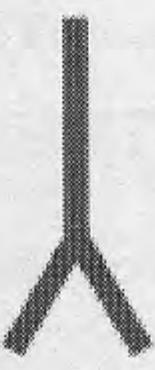
Animal



Eye



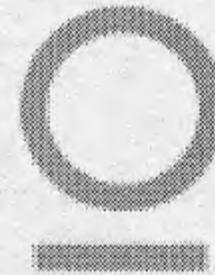
House



Man



Little



Food



Wash



You

Ideographic and Pictographic Symbols

Ideographic-Only Symbols

referees use a signal system based on body gestures and poses. Bar codes use optical patterns; Braille is a tactile code representing letters and numbers.

Codes often require a key, or a translation between the code and ordinary language, although some codes are accessible only to those who have memorized them or who have access to the technological equipment necessary to decode them. E-mail and instant messaging have produced a steady stream of communication codes in the form of acronyms and emoticons used to represent phrases or feelings. For people new to e-mail or text messaging, breaking the code can be difficult without a key.

What Is Language?

Language is the code used for communicating ideas with others. Although individual languages vary significantly, every language is based on an arbitrary set of abstract symbols people use to communicate with each other. These symbols are governed by rules for which sounds are used (humans are capable of producing many more sounds than they actually use in any given language); how those sounds are ordered; what constitutes a word; how words are modified to alter meaning; how words are strung together into sentences in certain ways to convey specific meanings; and how sounds, words, and sentences are modified in differing social contexts.

What Is Speech?

Speech is the production of **phonemes** by the **vocal tract**. It is supplied with air from the **respiratory system** and provided with voice by the vocal folds in the **larynx**. The vocal tract, which is illustrated in Figure 1.2 on page 10, consists of three main cavities (i.e., air-filled passages): the **pharyngeal cavity**, the **oral cavity**, and the **nasal cavity**.

During speech, air from the lungs passes through the vocal tract and is changed into phonemes. Air from the lungs passes through the larynx and causes the vocal folds to vibrate to produce most speech sounds—all vowel sounds and the majority of consonants—which are referred to as voiced phonemes. For the voiceless phonemes, the exhaled air is set into vibration in the oral cavity. During the production of /f/, for example, the air is set into vibration by being forced to exit through the narrow passage between the upper teeth and lower lip.

The configuration (i.e., shape) of the cavities in the vocal tract at a particular moment determines which phoneme will be produced. Each phoneme has a unique configuration. During every second of conversational speech, as many as 14 phonemes are produced (Darley, Aronson, & Brown, 1975). This means the configuration of the vocal tract is continually in a state of transformation. Phonemes have been classified in a number of ways, depending on how they are produced. More detail on this classification system will be provided in Chapter 8.

When we produce speech, we do so with a moderate amount of what is called **fluency**. Of course, we all hesitate periodically while speaking. We also insert sounds, syllables, words, and even phrases in the course of a conversation. At times, we insert long pauses between words; prolong speech sounds; and stop to correct errors of pronunciation, syntax, and word usage. A certain amount of these pauses, insertions, and hesitations is considered to be a normal part of speaking. Indeed, unless we’re listening to trained speakers or actors, we usually notice when someone’s speech does not include any of these attributes.

Language

The code used for communicating ideas with others.

Speech

The production of phonemes by the vocal tract.

Phonemes

Speech sounds.

Vocal tract

The mechanism that molds the “buzz” generated by the vocal folds into speech sounds. It consists of the pharyngeal, oral, and nasal cavities.

Respiratory system

The organs that generate the raw material (i.e., air) for vibrating the vocal folds to produce voice.

Larynx

The structure that contains the vocal folds (i.e., the mechanism that produces voice). The larynx also functions as a valve which prevents food and liquids from getting into the lungs.

Pharyngeal cavity

The throat. Also referred to as the pharynx.

Oral cavity

The mouth.

Nasal cavity

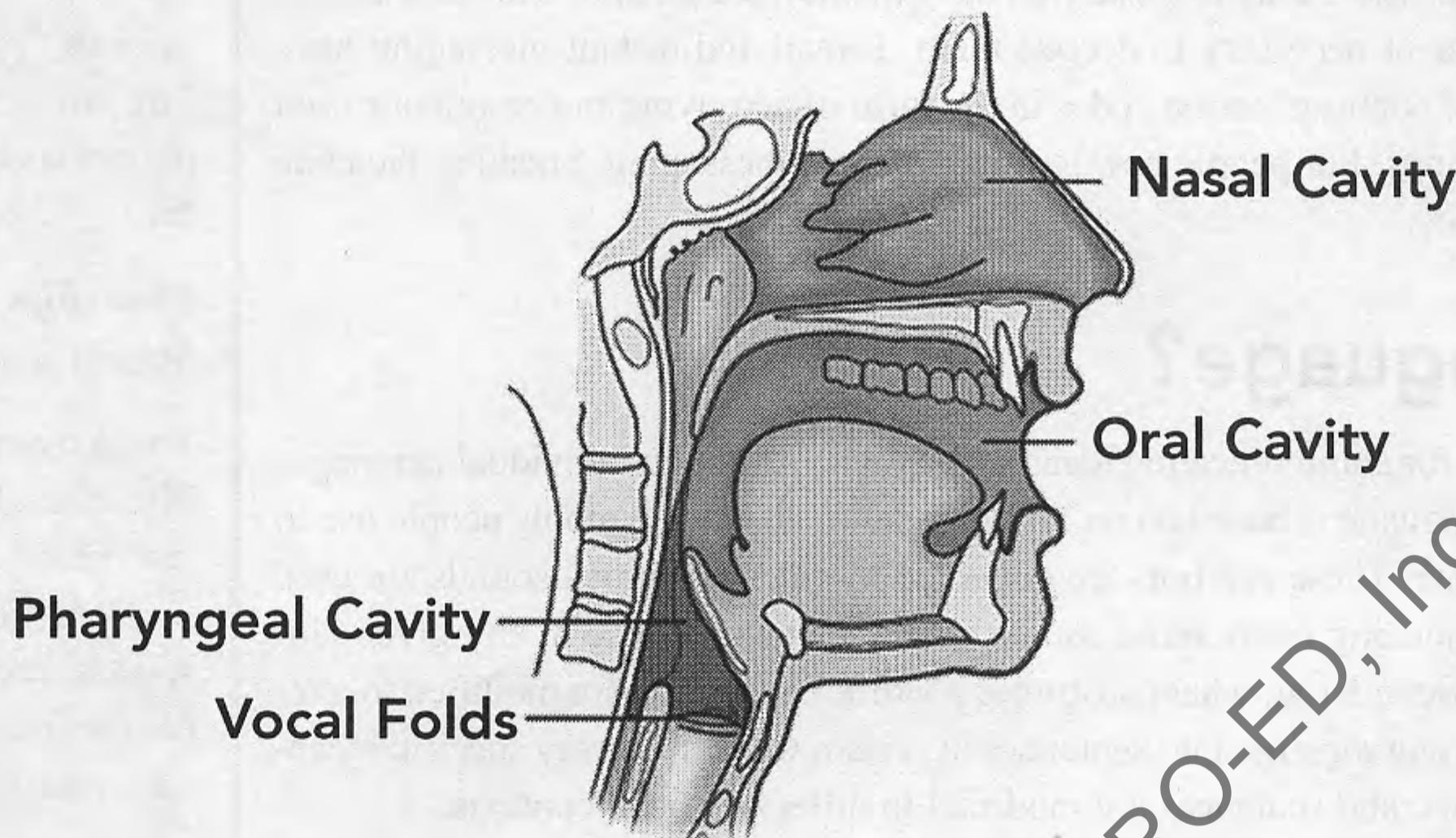
The interior of the nose.

Fluency

Effortless and smooth production of speech.

Figure 1.2

The Three Major Cavities of the Vocal Tract



Hearing

The perception of sound.

What Is Hearing?

The process of speaking involves the generation of speech sounds; the process of **hearing** involves the perception of sound. Within the context of communication, hearing means perceiving speech sounds. To understand hearing, you need some basic information about how sound is generated and transmitted—that is, the physics of sound. You'll also need to know a few basics about the anatomy and physiology of the ear. In Chapter 10 you will learn about (1) the physics of sound; (2) intensity; (3) the anatomy and physiology of the hearing mechanism; and (4) the inner ear, auditory nerve, and central auditory nervous system.

How Are Communication, Language, Speech, and Hearing Related?

In general, communication takes place through the processes of hearing and speaking, both of which rely on an understanding and command of the rules of the language being used to communicate. Of course, communication also takes place through modes other than speaking and hearing. However, almost all children first learn to communicate through speaking and hearing, and only later in their development are able to communicate through reading and writing.

Culture and Communication

Although communication is a universally shared human process, cultural groups vary significantly in how communication takes place within their culture, the various rule systems governing how

people communicate within each culture, and how people in each culture view communication. Culture determines how we express (or suppress) emotions such as happiness, anger, joy, disapproval, and love. For instance, consider how your culture governs the expression of love in public settings. Is it acceptable to hold hands? Hug? Kiss?

Culture governs how we think about and communicate our ideas regarding etiquette, values, norms, rituals, and expectations, to name a few. Try the exercises in Study More 1.3 to think about your culture's communication patterns.

The important thing to remember is that every communicative act takes place within a cultural context, whether it's enjoying a conversation with a friend, participating in a political rally, listening to a lecture by a world leader, or writing a term paper. Every person exists within at least one cultural context; most of us live in more than one culture. Learning to communicate with people from other cultures is a necessary prerequisite for becoming a successful clinician.

Study More 1.3

Communication in Your Culture

1. Think about your culture's "rules" regarding personal space; patterns of touch; etiquette and ritual; and the expression of emotions.
 - How close is "too close" when talking to a good friend?
 - Can you touch a stranger on the arm during a conversation?
 - What is the etiquette for how you address your parents' friends (first name, last name)?
 - Does your family have any communication rituals? What are they?
 - How do you express anger or joy in your culture?
2. Think about your culture's ideas about food.
 - Is food viewed as a reward in your culture?
 - Is food viewed as something to enjoy?
 - Is food viewed as simply a necessity?
 - How do people talk about food in your culture?
3. Think about parent-child relationships in your culture.
 - How do children talk to their parents in your culture?
 - How do parents talk to their children?
 - How do nonfamily members speak to other people's children?
 - How do children address adults outside the family?
4. What are some ways of showing respect in your culture?
 - What are the most common polite forms you use? With whom? Under what circumstances?
 - Is it acceptable to show disrespect in your culture? How?
 - Are manners important in your culture? How do they show up?