The Essence of Anthropology

THE ANTHROPOLOGICAL PERSPECTIVE

Anthropology is the study of humankind in all times and places. Of course many other research disciplines are concerned in one way or another with humans. For example, anatomy and physiology focus on our species as biological organisms. The social sciences are concerned with human relationships, while the humanities examine artistic and philosophical achievements in human cultures. Anthropology is distinct because of its focus on the interconnections and interdependence of all aspects of the human experience in all places, in the present and deep into the past, well before written history. It is this unique, broad holistic perspective that equips anthropologists so well to address that elusive thing we call human nature.

Anthropologists welcome the contributions of researchers from other disciplines and in return offer their own findings for the benefit of these other disciplines. Anthropologists do not expect, for example, to know as much about the structure of the human eye as anatomists or as much about the perception of color as psychologists. As synthesizers, however, anthropologists are prepared to understand how these bodies of knowledge relate to color-naming practices in different places.

anthropology The study of humankind in all times and places.
holistic perspective A fundamental principle of anthropology, that the various parts of human culture and biology must be viewed in the broadest possible context in order to understand their interconnections and interdependence.
human societies. Because they look for the broad basis of human ideas and practices without limiting themselves to any single social or biological aspect, anthropologists can acquire an especially expansive and inclusive overview of the complex biological and cultural organism that is the human being.

The holistic perspective also helps anthropologists stay keenly aware of ways that their own cultural ideas and values may impact upon their research. As the old saying goes, people often see what they believe, rather than what appears before their eyes. By maintaining a critical awareness of their own assumptions about human nature—checking and rechecking the ways their beliefs and actions might be shaping their research—anthropologists strive to gain objective knowledge about people. Equipped with this awareness, anthropologists have contributed uniquely to our understanding of diversity in human thought, biology, and behavior, as well as to our understanding of the many things humans have in common.

While other social sciences have predominantly concentrated on contemporary peoples living in North American and European (Western) societies, anthropologists have traditionally focused on non-Western peoples and cultures. Anthropologists believe that to fully understand the complexities of human ideas, behavior, and biology, all humans, wherever and whenever, must be studied. A cross-cultural and long-term evolutionary perspective distinguishes anthropology from other social sciences. This approach guards against the danger that theories of human behavior will be culture-bound: that is, based on assumptions about the world and reality that come from the researcher’s own particular culture.

As a case in point, consider the fact that infants in the United States typically sleep apart from their parents. To most North Americans, this may seem quite normal, but cross-cultural research shows that “co-sleeping,” of mother and baby in particular, is the rule. Only in the past 200 years, generally in Western industrialized societies, has it been considered proper for parents to sleep apart from their infants. In a way, this practice amounts to a cultural experiment in child rearing.

Recent studies have shown that separation of mother and infant in Western societies has important biological and cultural consequences. For one thing, it increases the length of the infant’s crying bouts. Some mothers incorrectly interpret the cause as a deficiency in breast milk and switch to less healthy bottle formulas, and in extreme cases, the crying may provoke physical abuse. But the benefits of co-sleeping go beyond significant reductions in crying: Infants also nurse more often and three times as long per feeding; they receive more stimulation (important for brain development); and they are apparently less susceptible to sudden infant death syndrome (SIDS or “crib death”). There are benefits to the mother as well: Frequent nursing prevents early ovulation after childbirth, and she gets at least as much sleep as mothers who sleep without their infants.1

These benefits may lead one to ask: Why do so many mothers continue to sleep apart from their infants?

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In North America the cultural values of independence and consumerism come into play. To begin building individual identities, babies are provided with rooms (or at least space) of their own. This room of one’s own also provides parents with a place for the toys, furniture, and other paraphernalia associated with “good” and “caring” parenting in North America.

**ANTHROPOLOGY AND ITS FIELDS**

Individual anthropologists tend to specialize in one of four fields or subdisciplines: physical anthropology, archaeology, linguistic anthropology, or cultural anthropology (Figure 1.1). Some anthropologists consider archaeology and linguistics as part of the broader study of human cultures, but, archaeology and linguistics also have close ties to biological anthropology. For example, while linguistic anthropology focuses on the cultural aspects of language, it has deep connections to the evolution of human language and the biological basis of speech and language studied within physical anthropology. Each of anthropology’s fields may take a distinct approach to the study of humans, but all gather and analyze data that are essential to explaining similarities and differences among humans, across time and space. Moreover, all of them generate knowledge that has numerous practical applications. Within the four fields are individuals who practice applied anthropology, which entails the use of anthropological knowledge and methods to solve practical problems. Applied anthropologists do not offer their perspectives from the sidelines. Instead, they actively collaborate with the communities in which they work—setting goals, solving problems, and conducting research together. In this book, examples of how anthropology contributes to solving a wide range of the challenges humans face appear in Anthropology Applied features.

**Physical Anthropology**

Physical anthropology, also called biological anthropology, focuses on humans as biological organisms. Traditionally, biological anthropologists concentrated on human evolution, primatology, growth and development, human adaptation, and forensics. Today, molecular anthropology, or the anthropological study of genes and genetic relationships, is another vital component of biological anthropology. Comparisons among groups separated by time, geography, or the frequency of a particular gene can reveal how humans have adapted and where they have migrated. As experts in the anatomy of human bones and tissues, physical anthropologists lend their knowledge about the body to applied areas such as gross anatomy laboratories, public health, and criminal investigations.

**Paleoanthropology**

Human evolutionary studies (known as paleoanthropology) focus on biological changes through time to understand how, when, and why we became the kind of organisms we are today. In biological terms, we humans are primates, one of the many kinds of mammals. Because we share a common ancestry with other primates, most specifically apes, paleoanthropologists look back to the earliest primates (65 or so million years ago), or even the earliest mammals (225 million years ago), to reconstruct the complex path of human evolution. Paleoanthropology, unlike other evolutionary studies, takes a biocultural approach focusing on the interaction of biology and culture.

The fossilized skeletons of our ancestors allow paleoanthropologists to reconstruct the course of human evolutionary history. They compare the size and shape of these fossils to one another and to the bones of living species. With each new fossil discovery, paleoanthropologists have another piece to add to human evolutionary history. Biochemical and genetic

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**physical anthropology** Also known as biological anthropology. The systematic study of humans as biological organisms.

**molecular anthropology** A branch of biological anthropology that uses genetic and biochemical techniques to test hypotheses about human evolution, adaptation, and variation.

**paleoanthropology** The study of the origins and predecessors of the present human species.

**biocultural** Focusing on the interaction of biology and culture.
studies add considerably to the fossil evidence. As we will see in later chapters, genetic evidence establishes the close relationship between humans and ape species—chimpanzees, bonobos, and gorillas. Genetic analyses indicate that the human line originated 5 to 8 million years ago. Physical anthropology therefore deals with much greater time spans than archaeology or other branches of anthropology.

**Primatology**

Studying the anatomy and behavior of the other primates helps us understand what we share with our closest living relatives and what makes humans unique. Therefore, primatology, or the study of living and fossil primates, is a vital part of physical anthropology. Primates include the Asian and African apes, as well as monkeys, lemurs, lorises, and tarsiers. Biologically, humans are apes—large-bodied, broad-shouldered primates with no tail. Detailed studies of ape behavior in the wild indicate that the sharing of learned behavior is a significant part of their social life. Increasingly, primatologists designate the shared, learned behavior of nonhuman apes as culture. For example, tool use and communication systems indicate the elementary basis of language in some ape societies. Primate studies offer scientifically grounded perspectives on the behavior of our ancestors, as well as greater appreciation and respect for the abilities of our closest living relatives. As human activity encroaches on all parts of the world, many primate species are endangered. Primatologists often advocate for the preservation of primate habitats so that these remarkable animals will be able to continue to inhabit the earth with us.

**Human Growth, Adaptation, and Variation**

Another specialty of physical anthropologists is the study of human growth and development. Anthropologists examine biological mechanisms of growth as well as the impact of the environment on the growth process. Franz Boas, a pioneer of anthropology of the early 20th century, compared the heights of European immigrants who spent their childhood in “the old country” to the increased heights obtained by their children who grew up in the United States. Today, physical anthropologists study the impacts of disease, pollution, and poverty on growth. Comparisons between human and nonhuman primate growth patterns can provide clues to the evolutionary history of humans. Detailed anthropological studies of the hormonal, genetic, and physiological basis of healthy growth in living humans also contribute significantly to the health of children today.

Studies of human adaptation focus on the capacity of humans to adapt or adjust to their material environment—biologically and culturally. This branch of physical anthropology takes a comparative approach to humans living today in a variety of environments. Humans are remarkable among the primates in that they now inhabit the entire earth. Though cultural adaptations make it possible for humans to live in some environmental extremes, biological adaptations also contribute to survival in extreme cold, heat, and high altitude.

Some of these biological adaptations are built into the genetic makeup of populations. The long period of human growth and development provides ample opportunity for the environment to shape the human body. Developmental adaptations are responsible for some features of human variation such as the enlargement of the right ventricle of the heart to help push blood to the lungs among the Quechua Indians of highland Peru. Physiological adaptations are short-term changes in response to a particular environmental stimulus. For example, a person who normally lives at sea level will undergo a series of physiological responses if she suddenly moves to a high altitude. All of these kinds of biological adaptation contribute to present-day human variation.

Human differences include visible traits such as height, body build, and skin color, as well as biochemical factors such as blood type and susceptibility to certain diseases. Still, we remain members of a single species. Physical anthropology applies all the techniques of modern biology to achieve fuller understanding of human variation and its relationship to the different environments in which people have lived. Research
in physical anthropology on human variation has debunked false notions of biologically defined races, a notion based on widespread misinterpretation of human variation.

Forensic Anthropology
One of the many practical applications of physical anthropology is forensic anthropology: the identification of human skeletal remains for legal purposes. Although they are called upon by law enforcement authorities to identify murder victims, forensic anthropologists also investigate human rights abuses such as systematic genocides, terrorism, and war crimes. These specialists use details of skeletal anatomy to establish the age, sex, population affiliation, and stature of the deceased; often forensic anthropologists can also determine whether the person was right- or left-handed, exhibited any physical abnormalities, or had experienced trauma. While forensics relies upon differing frequencies of certain skeletal characteristics to establish population affiliation, it is nevertheless false to say that all people from a given population have a particular type of skeleton. (See the Anthropology Applied feature to read about the work of several forensic anthropologists and forensic archaeologists.)

Archaeology
Archaeology is the branch of anthropology that studies human cultures through the recovery and analysis of material remains and environmental data. Such material products include tools, pottery, hearths, and enclosures that remain as traces of cultural practices in the past, as well as human, plant, and marine remains, some of which date back 2.5 million years. The details of exactly how these traces were arranged when they were found reflect specific human ideas and behavior. For example, shallow, restricted concentrations of charcoal that include oxidized earth, bone fragments, and charred plant remains, located near pieces of fire-cracked rock, pottery, and tools suitable for food preparation, indicate cooking and food processing. Such remains can reveal much about a people’s diet and subsistence practices. Together with skeletal remains, these material remains help archaeologists reconstruct the biocultural context of human life in the past.

Archaeologists can reach back for clues to human behavior far beyond the mere 5,000 years to which historians are confined by their reliance on written records. Calling this time period “prehistoric” does not mean that these societies were less interested in their history or that they did not have ways of recording and transmitting history. It simply means that written records do not exist. That said, archaeologists are not limited to the study of societies with no written records; they may also study those for which historic documents are available to supplement the material remains. In most literate societies, written records are associated with governing elites rather than with farmers, fishers, laborers, or slaves. Although written records can tell archaeologists much that might not be known from archaeological evidence alone, it is equally true that material remains can tell historians much about a society that is not apparent from its written documents.

Although most archaeologists concentrate on the human past, some of them study material objects in contemporary settings. One example is the Garbage Project, founded by William Rathje at the University of Arizona in 1973. This carefully controlled study of household waste continues to produce thought-provoking information about contemporary social issues. Among its accomplishments, the project has tested the validity of survey techniques, upon which sociologists, economists, other social scientists and policymakers rely heavily. The tests show a significant difference between what people say they do and what the garbage analysis shows they actually do. Ideas about human behavior based on simple survey techniques may therefore be seriously in error.

Cultural Resource Management
While archaeology may conjure up images of ancient pyramids and the like, much archaeological fieldwork is carried out as cultural resource management. What distinguishes this work from traditional archaeological research is that it is part of activities legislated to preserve important aspects of a country’s prehistoric and historic heritage. For example, in the United States, if the transportation department of a state government plans to replace an inadequate highway bridge, steps have to be taken to identify and protect any significant prehistoric or historic resources that might be affected by this new construction. Since passage of the Historic Preservation Act of 1966, the National Environmental Policy Act of 1969, and the Archaeological and Historical Preservation Act

forensic anthropology Subfield of applied physical anthropology that specializes in the identification of human skeletal remains for legal purposes.
archaeology The study of human cultures through the recovery and analysis of material remains and environmental data.
cultural resource management A branch of archaeology that is concerned with survey and/or excavation of archaeological and historical remains threatened by construction or development and policy surrounding protection of cultural resources.
Forensic anthropology is the identification of skeletal remains for legal purposes. Law enforcement authorities call upon forensic anthropologists to use skeletal remains to identify murder victims, missing persons, or people who have died in disasters, such as plane crashes. Forensic anthropologists have also contributed substantially to the investigation of human rights abuses in all parts of the world by identifying victims and documenting the cause of their death.

Among the best-known forensic anthropologists is Clyde C. Snow. He has been practicing in this field for 40 years, first for the Federal Aviation Administration and more recently as a freelance consultant. In addition to the usual police work, Snow has studied the remains of General George Armstrong Custer and his men from the 1876 battlefield at Little Big Horn, and in 1985, he went to Brazil, where he identified the remains of the notorious Nazi war criminal Josef Mengele.

He was also instrumental in establishing the first forensic team devoted to documenting cases of human rights abuses around the world. This began in 1984 when he went to Argentina at the request of a newly elected civilian government to help with the identification of remains of the desaparecidos, or "disappeared ones," the 9,000 or more people who were eliminated by government death squads during seven years of military rule. A year later, he returned to give expert testimony at the trial of nine junta members and to teach Argentines how to recover, clean, repair, preserve, photograph, x-ray, and analyze bones. Besides providing factual accounts of the fate of victims to their surviving kin and refuting the assertions of "revisionists" that the massacres never happened, the work of Snow and his Argentinean associates was crucial in convicting several military officers of kidnapping, torture, and murder.

Since Snow's pioneering work, forensic anthropologists have become increasingly involved in the investigation of human rights abuses in all parts of the world, from Chile to Guatemala, Haiti, the Philippines, Rwanda, Iraq, Bosnia, and Kosovo. Meanwhile, they continue to do important work for more typical clients. In the United States these clients include the Federal Bureau of Investigation and city, state, and county medical examiners' offices.

Forensic anthropologists specializing in skeletal remains commonly work closely with forensic archaeologists. The relation between them is rather like that between a forensic pathologist, who examines a corpse to establish time and manner of death, and a crime scene investigator, who searches the site for clues. While the forensic anthropologist deals with the human remains—often only bones and teeth—the forensic archaeologist controls the site, recording the position of all relevant finds and recovering any clues associated with the remains. In Rwanda, for example, a team assembled in 1995 to investigate a mass atrocity for the United Nations included archaeologists from the U.S. National Park Service's Midwest Archaeological Center. They performed the standard archaeological procedures of mapping the site, determining its boundaries, photographing and recording all surface finds, and excavating, photographing, and recording buried skeletons and associated materials in mass graves.

In another example, Karen Burns of the University of Georgia was part of a team sent to northern Iraq after the 1991 Gulf War to investigate alleged atrocities. On a military base where there had been many executions, she excavated the remains of a man's body found lying on its side facing Mecca, conforming to Islamic practice. Although there was no intact clothing, two threads of polyester used to sew clothing were found along the sides of both legs. Although the threads survived, the clothing, because it was made of natural fiber, had decayed. "Those two threads at each side of the leg just shouted that his family didn't bury him," says Burns. Proper though his position was, no Islamic family would bury their own in a garment sewn with polyester thread; proper ritual would require a simple shroud.

In recent years two major anthropological analyses of skeletal remains have occurred in New York City dealing with both past and present atrocities. Amy Zelson Mundorff, a forensic anthropologist for New York City's Office of the Chief Medical Examiner, was injured in the September 11, 2001, terrorist attack on the World Trade Center. Two days later she returned to work to supervise and coordinate the management, treatment, and cataloging of people who lost their lives in the attack.

Just a short walk away, construction workers in lower Manhattan discovered a 17th- and 18th-century African burial ground in 1991 (see Chapter 15).
Archaeological investigation of the burial ground revealed the horror of slavery in North America, showing that even young children were worked so far beyond their ability to endure that their spines were fractured. Biological archaeologist Michael Blakey, who led the research team, notes: "Although bioarchaeology and forensics are often confused, when skeletal biologists use the population as the unit of analysis (rather than the individual), and incorporate cultural and historical context (rather than simply ascribing biological characteristics), and report on the lifeways of a past community (rather than on a crime for the police and courts), it is bioarchaeology rather than forensics." Therefore, several kinds of anthropologists analyze human remains for a variety of purposes contributing to the documentation and correction of atrocities committed by humans of the past and present.

of 1974, cultural resource management is required for any building project that is partially funded or licensed by the U.S. government. As a result, the field of cultural resource management has flourished. Many archaeologists are employed by such agencies as the Army Corps of Engineers, the National Park Service, the U.S. Forest Service, and the U.S. Soil and Conservation Service to assist in the preservation, restoration, and salvage of archaeological resources.

Archaeologists are also employed by state historic preservation agencies. Finally, they consult for engineering firms to help them prepare environmental impact statements. Some of these archaeologists operate out of universities and colleges, while others are on the staffs of independent consulting firms.

Linguistic Anthropology

Perhaps the most distinctive feature of the human species is language. Although the sounds and gestures made by some other animals—especially by apes—may serve functions comparable to those of human language, no other animal has developed a system of symbolic communication as complex as that of humans. Language allows people to preserve and transmit countless details of their culture from generation to generation.

The branch of anthropology that studies human languages is called linguistic anthropology. Linguists may deal with the description of a language (the way a sentence is formed, or a verb conjugated), the history of languages (the way languages develop and change with the passage of time), or with the relation between language and culture. All three approaches yield valuable information about how people communicate and how they understand the world around them. The everyday language of English-speaking North Americans, for example, includes a number of slang words, such as dough, greenback, dust, loot, bucks, change, and bread, to identify what an indigenous inhabitant of Papua New Guinea would recognize only as "money." The profusion of names helps to identify a thing of special importance to a culture.

Anthropological linguists also make a significant contribution to our understanding of the human past. By working out relationships among languages and examining their spatial distributions, they may estimate how long the speakers of those languages have lived where they do. By identifying those words in related languages that have survived from an ancient ancestral tongue, anthropological linguists can also suggest not only where, but how, the speakers of the ancestral language lived. Such work shows linguistic ties between geographically distant groups such as the people of Finland and Turkey.

Linguistic anthropology is practiced in a number of applied settings. For example, linguistic anthropologists have collaborated with ethnic minorities in the revival of languages suppressed or lost during periods of oppression by another ethnic group. Anthropologists have helped to create written forms of some languages that previously existed only in an oral form. These examples of applied linguistic anthropology represent the kind of true collaboration that is characteristic of anthropological fieldwork today.

Cultural Anthropology

Cultural anthropology (also called social or sociocultural anthropology) is the study of customary patterns in human behavior, thought, and feelings. It focuses on humans as culture-producing and culture-reproducing creatures.

Cultural anthropology Also known as social or sociocultural anthropology. The study of customary patterns in human behavior, thought, and feelings. It focuses on humans as culture-producing and culture-reproducing creatures.

linguistic anthropology The study of human languages.
Thus, in order to understand the work of the cultural anthropologist, we must clarify what we mean by "culture." The concept is discussed in detail in Chapter 9, but for our purposes here, we may think of culture as the (often unconscious) standards by which societies—structured groups of people—operate. These standards are socially learned, rather than acquired through biological inheritance. Because they determine, or at least guide, normal day-to-day behavior, thought, and emotional patterns of the members of a society, human activities, ideas, and feelings are above all culturally acquired and influenced. The manifestations of culture may vary considerably from place to place, but no person is "more cultured" in the anthropological sense than any other.

Cultural anthropology has two main components: ethnography and ethnomology. An ethnography is a detailed description of a particular culture primarily based on fieldwork, which is the term anthropologists use for on-location research. Because the hallmark of ethnographic fieldwork is a combination of social participation and personal observation within the community being studied, as well as interviews and discussions with individuals or groups of a community, the ethnographic method is commonly referred to as participant observation. Today, participant observation research has grown to become active collaboration between anthropologists and the communities in which they work.

Ethnographies provide the information used to make systematic comparisons among cultures all across the world. Known as ethnomology, such cross-cultural research allows anthropologists to develop anthropological theories that help explain why certain important differences or similarities occur among groups.

culture The (often unconscious) standards by which societies—structured groups of people—operate. These standards are socially learned, rather than acquired through biological inheritance.

ethnography A detailed description of a particular culture primarily based on fieldwork.

fieldwork The term anthropologists use for on-location research.

participant observation In ethnography, the technique of learning a people’s culture through social participation and personal observation within the community being studied, as well as interviews and discussion with individual members of the group over an extended period of time.

ethnomology The study and analysis of different cultures from a comparative or historical point of view, utilizing ethnographic accounts and developing anthropological theories that help explain why certain important differences or similarities occur among groups.

Ethnography

Through participant observation—eating a people’s food, sleeping under their roof, learning how to speak and behave acceptably, and personally experiencing the habits and customs—the ethnographer is able to understand the culture of the society in which he or she is doing fieldwork more fully than a nonparticipant researcher ever could. Being a participant observer does not mean that the anthropologist must join in a people’s battles in order to study a culture in which warfare is prominent; but by living among a warlike people, the ethnographer should be able to understand how warfare fits into the overall cultural framework. She or he must observe carefully to gain an overview without placing too much emphasis on one part at the expense of another. Only by discovering how all aspects of a culture—its social, political, economic, and religious practices and institutions—relate to one another can the ethnographer begin to understand the cultural system. An ethnographer’s most essential tools are notebooks, pen/pencil, camera, tape recorder, and, increasingly, a laptop computer. Most important of all, he or she needs flexible social skills.

The popular image of ethnographic fieldwork is that it occurs among people who live in far-off, isolated places. To be sure, much ethnographic work has been done in the remote villages of Africa or South America, the islands of the Pacific Ocean, the Indian reservations of North America, the deserts of Australia, and so on. However, as the discipline of anthropology developed, Western cultures also became a legitimate focus of anthropological study. Some of this shift occurred as scholars from non-Western cultures became anthropologists. Ethnographic fieldwork has transformed from expert Western anthropologists studying people in "other" places to collaborations among anthropologists from all parts of the world and the varied communities in which they work. Today, anthropologists from all around the globe employ the same research techniques that were used in the study of non-Western peoples to explore such diverse subjects as religious movements, street gangs, land rights, schools, marriage practices, conflict resolution, corporate bureaucracies, and health-care systems in Western cultures.

Ethnomology

Although ethnographic fieldwork is basic to cultural anthropology, it is not the sole occupation of the cultural anthropologist. Largely descriptive in nature, ethnography provides the raw data needed for ethnomology—the branch of cultural anthropology that involves cross-
cultural comparisons and theories that explain differences or similarities among groups. Intriguing insights into one’s own beliefs and practices may come from cross-cultural comparisons. Consider, for example, the amount of time spent on domestic chores by industrialized peoples and traditional food foragers (people who rely on wild plant and animal resources for subsistence). Anthropological research among food foragers has shown that they work far less at domestic tasks, and indeed less at all subsistence pursuits, than do people in industrialized societies. Urban women in the United States who were not working for wages outside their homes put 55 hours a week into their housework—this despite all the “labor-saving” dishwashers, washing machines, clothes dryers, vacuum cleaners, food processors, and microwave ovens; in contrast, aboriginal women in Australia devoted 20 hours a week to their chores. Nevertheless, consumer appliances have become important indicators of a high standard of living in the United States due to the widespread belief that household appliances reduce housework and increase leisure time.

Considering such cross-cultural comparisons, one may think of ethnology as the study of alternative ways of doing things. But more than that, by making systematic comparisons, ethnologists seek to arrive at scientific conclusions concerning the function and operation of cultural practices in all times and places.

Today cultural anthropologists contribute to applied anthropology in a variety of contexts ranging from business to education to governmental interventions to humanitarian aid. One of the earliest contexts in which knowledge from cultural anthropology was applied to a practical problem was the international public health movement that began in the 1920s, marking the beginning of the subdiscipline of medical anthropology.

**Medical Anthropology**

While medical anthropology is centered within cultural anthropology, it is a specialization that cross-cuts all the traditional anthropological fields. Some of the earliest medical anthropologists were individuals trained as physicians and ethnographers who investigated health beliefs and practices of people in exotic places while also providing them with “Western” medicine. Medical anthropologists during this early period translated local experiences of sickness into the scientific language of Western biomedicine. Following a re-evaluation of this ethnocentric approach in the 1970s, medical anthropology emerged as a specialization that brings theoretical and applied approaches from cultural and biological anthropology to the study of human health and disease. Medical anthropologists study medical systems as cultural systems similar to any other social institution. They also examine healing traditions and practices cross-culturally and use scientific models drawn from biological anthropology to understand and improve human health. Medical anthropologists have also turned their attention toward biomedicine, focusing on the social and cultural aspects of health care in their own societies. Their work sheds light on the connections between human health and political and economic forces, both globally and locally. Many of the Biocultural Connections featured throughout this text present the work of medical anthropologists, as does “The Anthropology of Organ Transplantation.”

**ANTHROPOLOGY, SCIENCE, AND THE HUMANITIES**

Anthropology has sometimes been called the most humane of the sciences and the most scientific of the humanities—a designation that most anthropologists accept with pride. Given their intense involvement with people of all times and places, it should come as no surprise that anthropology has amassed considerable information about human failure and success, weakness and greatness—the real stuff of the humanities. While anthropologists steer clear of a “cold” impersonal scientific approach that reduces people and the things they do and think to mere numbers, their quantitative studies have contributed substantially to the scientific study of the human condition. But even the most scientific anthropologists always keep in mind that human societies are made up of individuals with rich assortments of emotions and aspirations that demand respect. Beyond this, anthropologists remain committed to the proposition that one cannot fully understand another culture by simply observing it; as the term participant observation implies, one must experience it as well. This same commitment to fieldwork and to the systematic collection of data, whether it is qualitative or quantitative, is also evidence of the scientific side of anthropology. Anthropology is

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**medical anthropology** A specialization in anthropology that brings theoretical and applied approaches from cultural and biological anthropology to the study of human health and disease.
The Anthropology of Organ Transplantation

In 1954, the first organ transplant occurred in Boston when surgeons removed a kidney from one identical twin to place it inside his sick brother. Though some transplants rely upon living donors, routine organ transplantation depends largely upon the availability of organs obtained from individuals who have died.

From an anthropological perspective, the meanings of death and the body vary cross-culturally. While death could be said to represent a particular biological state, social agreement about this state's significance is of paramount importance. Anthropologist Margaret Lock has explored differences between Japanese and North American acceptance of the biological state of "brain death" and how it affects the practice of organ transplants.

Brain death relies upon the absence of measurable electrical currents in the brain and the inability to breathe without technological assistance. The brain-dead individual, though attached to machines, still seems alive with a beating heart and pink cheeks. North Americans find brain death acceptable, in part, because personhood and individuality are culturally located in the brain. North American comfort with brain death has allowed for the "gift of life" through organ donation and subsequent transplantation.

By contrast, in Japan, the concept of brain death is hotly contested and organ transplants are rarely performed. The Japanese do not incorporate a mind-body split into their models of themselves and locate personhood through-out the body rather than in the brain. They resist accepting a warm pink body as a corpse from which organs can be "harvested." Further, organs cannot be transformed into "gifts" because anonymous donation is not compatible with Japanese social patterns of reciprocal exchange.

Organ transplantation carries far greater social meaning than the purely biological movement of an organ from one individual to another. Cultural and biological processes are tightly woven into every aspect of this new social practice. (Based on M. Lock (2001). Twice dead: Organ transplants and the reinvention of death. Berkeley: University of California Press.)

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Like other scientists, anthropologists often begin their research with a hypothesis (a tentative explanation or hunch) about the possible relationships between certain observed facts or events. By gathering various kinds of data that seem to ground such suggested explanations on evidence, anthropologists come up with a theory—an explanation supported by a reliable body of data. In their effort to demonstrate linkages between known facts or events, anthropologists may discover unexpected facts, events, or relationships. An important function of theory is that it guides us in our explorations and may result in new knowledge. Equally important, the newly discovered facts may provide evidence that certain explanations, however popular or firmly believed to be true, are unfounded. When the evidence is lacking or fails to support the suggested explanations, anthropologists are forced to drop promising hypotheses or attractive hunches. In other words, anthropology relies on empirical evidence. Moreover, no scientific theory, no matter how widely accepted by the international community of scholars, is beyond challenge.

**hypothesis** A tentative explanation of the relation between certain phenomena.

**theory** In science, an explanation of natural phenomena, supported by a reliable body of data.

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**empirical** Based on observations of the world rather than on intuition or faith.
and upon moving to that country I was classified as "honorary black" and forced to live in a segregated township with my husband. The AIDS epidemic was in its infancy, but it was clear from the start that an anthropological understanding of how people perceive and engage with this disease would be crucial for developing interventions. I wanted to learn all that I could to make a difference, and this culminated in earning a Ph.D. from the University of Natal on the cultural construction of AIDS among the Zulu. The HIV/AIDS pandemic in Africa became my professional passion.

Faced with overwhelming global health-care needs, the World Health Organization passed a series of resolutions in the 1970s promoting collaboration between traditional and modern medicine. Such moves held a special relevance for Africa where traditional healers typically outnumber practitioners of modern medicine by a ratio of 100 to 1 or more. Given Africa's disproportionate burden of disease, supporting partnership efforts with traditional healers makes sense. But what sounds sensible today was once considered absurd, even heretical. For centuries Westerners generally viewed traditional healing as a whole lot of primitive mumbo jumbo practiced by witchdoctors with demonic powers who perpetuated superstition. Yet, its practice survived. Today, as the African continent grapples with an HIV/AIDS epidemic of crisis proportion, millions of sick people who are either too poor or too distant to access modern health care are proving that traditional healers are an invaluable resource in the fight against AIDS.

Of the world's estimated 40 million people currently infected by HIV, 70 percent live in sub-Saharan Africa, and the vast majority of children left orphaned by AIDS are African. From the 1980s onward, as Africa became synonymous with the rapid spread of HIV/AIDS, a number of prevention programs involved traditional healers. My initial research in South Africa's KwaZulu-Natal province—where it is estimated that 36 percent of the population is HIV infected—revealed that traditional Zulu healers were regularly consulted for the treatment of sexually transmitted disease (STD). I found that such diseases, along with HIV/AIDS, were usually attributed to transgressions of taboos related to birth, pregnancy, marriage, and death. Moreover, these diseases were often understood within a framework of pollution and contagion, and like most serious illnesses, ultimately believed to have their causal roots in witchcraft.

In the course of my research, I investigated a pioneer program in STD and HIV education for traditional healers in the province. The program aimed to provide basic biomedical knowledge about the various modes of disease transmission, the means available for prevention, the diagnosing of symptoms, the keeping of records, and the making of patient referrals to local clinics and hospitals.

Interviews with the healers showed that many maintained a deep suspicion of modern medicine. They perceived AIDS education as a one-way street intended to press them into formal health structures and convince them of the superiority of modern medicine. Yet, today, few of the 6,000-plus KwaZulu-Natal healers who have been trained in AIDS education say they would opt for less collaboration; most want to have more.

Treatments by Zulu healers for HIV/AIDS often take the form of infusions of bitter herbs to "cleanse" the body, strengthen the blood, and remove misfortune and "pollution."

Some treatments provide effective relief from common ailments associated with AIDS such as itchy skin rashes, oral thrush, persistent diarrhea, and general debility. Indigenous plants such as unwele (Sutherlandia frutescens) and African potato (Hypoxis hemerocallidea) are well-known traditional medicines that have proven immunoboosting properties.

Both have recently become available in modern pharmacies packaged in tablet form. With modern anti-retroviral treatments still well beyond the reach of most South Africans, indigenous medicines that can delay or alleviate some of the suffering caused by AIDS are proving to be valuable and popular treatments.

Knowledge about potentially infectious bodily fluids has led healers to change some of their practices. Where porcupine quills were once used to give a type of indigenous injection, patients are now advised to bring their own sewing needles to consultations. Patients provide their own individual razor blades for making incisions on their skin, where previously healers reused the same razor on many clients. Some healers claim they have given up the practice of biting clients' skin to remove foreign objects from the body. It is not uncommon today, especially in urban centers like Durban, to find healers proudly displaying AIDS training certificates in their inner-city "surgery" where they don white jackets and wear protective latex gloves.

Politics and controversy have dogged South Africa's official response to HIV/AIDS. But back home in the waddle-and-dauber, animal-skin-draped herbariums and divining huts of traditional healers, the politics of AIDS holds little relevance. Here the sick and dying are coming in droves to be treated by healers who have been part and parcel of community life (and death) since time immemorial. In many cases traditional healers have transformed their homes into hospices for AIDS patients. Because of the strong stigma that still plagues the disease, those with AIDS symptoms are often abandoned or sometimes chased away from their homes by family members. They seek
Straightforward though the scientific approach may seem, its application is not always easy. For instance, once a hypothesis has been proposed, the person who suggested it is strongly motivated to verify it, and this can cause one to unwittingly overlook negative evidence and unanticipated findings. This is a familiar problem in all science as noted by paleontologist Stephen Jay Gould: "The greatest impediment to scientific innovation is usually a conceptual lock, not a factual lock." Because culture provides humans with their concepts and shapes our very thoughts, it can be challenging to frame hypotheses or develop interpretations that are not culture-bound. By encompassing both humanism and science, the discipline of anthropology can draw on its internal diversity to overcome conceptual locks.

Fieldwork

All anthropologists think about whether their culture may have shaped the scientific questions they are asking. In so doing, they rely heavily on a technique that has proved successful in other disciplines: They immerse themselves in the data to the fullest extent possible. In the process, anthropologists become so thoroughly familiar with even the smallest details that they can begin to recognize underlying patterns in the data, many of which might have been overlooked. Recognition of such patterns enables the anthropologist to frame meaningful hypotheses, which then may be subjected to further testing in the field. Within anthropology, fieldwork provides additional rigor to the concept of total immersion in the data.

While fieldwork was introduced above in connection with cultural anthropology, it is characteristic of all the anthropological subdisciplines. Archaeologists and paleoanthropologists excavate in the field. A biological anthropologist interested in the effects of globalization on nutrition and growth will live in the field among a community of people to study this question. A primateologist might live among a group of chimpanzees or baboons just as a linguist will study the language of a community by living in that community. Fieldwork, being immersed in another culture, challenges the anthropologist to be constantly aware of the ways that cultural factors influence the research questions.

Fieldwork requires the researcher to step out of his or her cultural comfort zone into a world that is unfamiliar and sometimes unsettling. Anthropologists in the field are likely to face a host of challenges—physical, social, mental, political, and ethical. They may have to deal with the physical challenge of adjusting to unaccustomed food, climate, and hygiene conditions. Typically, anthropologists in the field struggle with such mental challenges as loneliness, feeling like a perpetual outsider, being socially clumsy and clueless in their new cultural setting, and having to be alert around the clock because anything that is happening or being said may be significant to their research. Political challenges include the possibility of unwittingly letting oneself be used by factions within the community, or being viewed with suspicion by government authorities who may suspect the anthropologist is a spy. And there are ethical dilemmas: what to do if faced with a cultural practice one finds troubling, such as female circumcision; how to deal with demands for food supplies and/or medicine; the temptation to use deception to gain vital information; and so on.

At the same time, fieldwork often leads to tangible and meaningful personal, professional, and social rewards, ranging from lasting friendships to vital knowledge and insights concerning the human condition that make positive contributions to people's lives. Something of the meaning of anthropological fieldwork—its usefulness and its impact on researcher and subject—is conveyed in the following Original Study by Suzanne Leclerc-Madlala, an anthropologist who left her familiar New England surroundings 20 years ago to do AIDS research among Zulu-speaking people in South Africa. Her research interest has changed the course of her own life, not to mention the lives of individuals who have AIDS/HIV and the type of treatment they receive.

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**Fighting HIV/AIDS in Africa:**

**Traditional Healers on the Front Line**

In the 1980s, as a North American anthropology graduate student at George Washington University in Washington D.C., I met and married a Zulu-speaking student from South Africa. It was the height of apartheid.

[continued]
refuge with healers who provide them with comfort in their final days. Healers' homes are also becoming orphanages as healers respond to what has been called the "third wave" of AIDS destruction: the growing legions of orphaned children.

The practice of traditional healing in Africa is adapting to the changing face of health and illness in the context of HIV/AIDS. But those who are suffering go to traditional healers not only in search of relief for physical symptoms. They go to learn about the ultimate cause of their disease—something other than the immediate cause of a sexually transmitted "germ" or "virus." They go to find answers to the "why me and not him" questions, the "why now" and "why this." As with most traditional healing systems worldwide, healing among the Zulu and most all African ethnic groups cannot be separated from the spiritual concerns of the individual and the cosmological beliefs of the community at large. Traditional healers help to restore a sense of balance between the individual and the community, on one hand, and between the individual and the cosmos, or ancestors, on the other hand. They provide health care that is personalized, culturally appropriate, holistic, and tailored to meet the needs and expectations of the patient. In many ways it is a far more satisfactory form of healing than that offered by modern medicine.

Traditional healing in Africa is flourishing in the era of AIDS, and understanding why this is so requires a shift in the conceptual framework by which we understand, explain, and interpret health. Anthropological methods and its comparative and holistic perspective can facilitate, like no other discipline, the type of understanding that is urgently needed to address the AIDS crisis. (By Suzanne Leclerc-Madlala. Adapted in part from S. Leclerc-Madlala (2002). Bodies and politics: Healing rituals in the democratic South Africa. In V. Faure (Ed.), Les cahiers de l'IFAS, No. 2. Johannesburg: The French Institute.)

Unlike many other social scientists, anthropologists usually do not go into the field armed with prefigured questionnaires. Though they head into the field having completed considerable background research and some tentative hypotheses, they still recognize that many of the best discoveries are made by maintaining an open mind. As fieldwork proceeds, anthropologists sort out their observations, sometimes by formulating and testing limited or low-level hypotheses, or by intuition. The anthropologist works closely with the community so that the research process can become a collaborative effort. The results are constantly checked for consistency, for if the parts fail to fit together in a manner that is consistent, then the anthropologist knows that a mistake may have been made and that further inquiry is necessary.

Another issue in scientific fieldwork is validity. In the natural sciences, the reliability of a researcher's conclusions is established through the replication of observations and/or experiments by another researcher. Thus, it becomes obvious if one's colleague has "gotten it right." In anthropology, some researchers self-monitor through constantly checking their own biases and assumptions as they work and presenting these self-reflections along with their observations, a practice known as reflexivity.

Traditional validation by others is uniquely challenging in anthropology because observational access is often limited. Access to a particular research site can be constrained by a number of factors. Difficulties of travel, obtaining permits, insufficient funding, or social, political, and environmental conditions can hamper the process, and what may be observed in a certain context at a certain time may not be at others, and so on. Once an archaeological site has been excavated for the first time, the site is forever changed. Thus, one researcher cannot easily confirm the reliability or completeness of another's account. For this reason, anthropologists bear a special responsibility for accurate reporting. In the final research report, she or he must be clear about several basic things: Why was a particular location selected as a research site? What were the research objectives? What were the local conditions during fieldwork? Which local individuals provided the key information and major insights? How were the data collected and recorded? How did the researcher check his/her own biases? Without such background information, it is difficult for others to judge the validity of the account and the soundness of the researcher's conclusions.

ANTHROPOLOGY’S COMPARATIVE METHOD

The end product of anthropological research, if properly carried out, is a coherent statement about a people that provides an explanatory framework for understanding the beliefs, behavior, or biology of those who have been studied. And this, in turn, is what permits the anthropologist to frame broader hypotheses about human beliefs, behavior, and biology. A single instance of any phenomenon is generally insufficient for supporting a plausible hypothesis. Without some basis for comparison, the hypothesis grounded in a single case may be no more than a particular historical coincidence. On the other hand, a single case may be enough to cast doubt on, if not refute, a theory that had previously been held to be valid. For example, the discovery in 1948 that aborigines living in Australia's northern Arnhem Land put in an average workday of less than 6 hours, while living well above a level of bare suffi-
cience, was enough to call into question the widely accepted notion that food-foraging peoples are so preoccupied with finding scarce food that they lack time for any of life’s more pleasurable activities. The observations made in the Arnhem Land study have since been confirmed many times over in various parts of the world.

Hypothetical explanations of cultural and biological phenomena may be tested through comparison of archaeological, biological, linguistic, historical, and/or ethnographic data for several societies found in a particular region. Carefully controlled comparison provides a broader basis for drawing general conclusions about humans than does the study of a single culture or population.

Ideally, theories in anthropology are generated from worldwide comparisons or comparisons across species or through time. The cross-cultural researcher examines a global sample of societies in order to discover whether or not hypotheses proposed to explain cultural phenomena or biological variation are universally applicable. However, the cross-cultural researcher depends upon data gathered by other scholars as well as his or her own. Similarly, archaeologists and biological anthropologists rely on artifacts and skeletal collections housed in museums, as well as published descriptions of these collections.

**QUESTIONS OF ETHICS**

The kinds of research carried out by anthropologists, and the settings within which they work, raise a number of important moral questions about the potential uses and abuses of our knowledge. While some of these questions are now incorporated into laws designed to protect human research subjects, anthropologists have been grappling with these issues for many years. Who will utilize our findings and for what purposes? Who decides what research questions are asked? Who, if anyone, will profit from the research? For example, in the case of research on an ethnic or religious minority whose values may be at odds with dominant mainstream society, will governmental or corporate interests use anthropological data to suppress that group? And what of traditional communities around the world? Who is to decide what changes should, or should not, be introduced for community “betterment”? And who defines what constitutes betterment—the community, a national government, or an international agency like the World Health Organization? What are the limits of cultural relativism when a traditional practice is considered a human rights abuse globally?

Then there is the problem of privacy. Anthropologists deal with matters that are private and sensitive, including things that individuals would prefer not to have generally known about them. How does one write about such important but delicate issues and at the same time protect the privacy of the individuals who have shared their stories? The American Anthropological Association (AAA) maintains a Statement of Ethics, which is regularly examined and modified to reflect the practice of anthropology in a changing world. The AAA ethics statement is an educational document that lays out the rules and ideals applicable to anthropologists in all the subdisciplines. While the AAA has no legal authority, it does issue policy statements on research ethics questions as they come up. For example, recently the AAA recommended that field notes from medical settings should be protected and not subject to subpoena in malpractice lawsuits. This honors the ethical imperative to protect the privacy of individuals who have shared their stories with anthropologists.

Anthropologists recognize that they have special obligations to three sets of people: those whom they study, those who fund the research, and those in the profession who expect us to publish our findings so that they may be used to further our collective knowledge. Because fieldwork requires a relationship of trust between fieldworker and the community in which they work, the anthropologist’s first responsibility clearly is to the people who have shared their stories and the greater community. Everything possible must be done to protect their physical, social, and psychological welfare and to honor their dignity and privacy. This task is frequently complex. For example, telling the story of a group of people gives information both to relief agencies who might help these people and to others who might take advantage of them. While anthropologists regard as basic a people’s right to maintain their own culture, any connections with outsiders can endanger the cultural identity of the community being studied. To surmount these obstacles, anthropologists frequently collaborate with and contribute to the communities in which they are working, allowing the people being studied to have some say about how their stories are told.

**ANTHROPOLOGY AND GLOBALIZATION**

A holistic perspective and a long-term commitment to understanding the human species in all its variety is the essence of anthropology. Thus, anthropology is well equipped to grapple with an issue that has overriding importance for all of us at the beginning of the 21st century: **globalization**. This term refers to worldwide inter-
connectedness, evidenced in global movements of natural resources, trade goods, human labor, finance capital, information, and infectious diseases. Although worldwide travel, trade relations, and information flow have existed for several centuries, the pace and magnitude of these long-distance exchanges has picked up enormously in recent decades; the Internet, in particular, has greatly expanded information exchange capacities.

The powerful forces driving globalization are technological innovations, lower transportation and communication costs, faster knowledge transfers, and increased trade and financial integration among countries. Touching almost everybody's life on the planet, globalization is about economics as much as politics, and it changes human relations and ideas as well as our natural environments. Even geographically remote communities are quickly becoming more interdependent through globalization.

Doing research in all corners of the world, anthropologists are confronted with the impact of globalization on human communities wherever they are located. As participant observers, they describe and try to explain how individuals and organizations respond to the massive changes confronting them. Anthropologists may also find out how local responses sometimes change the global flows directed at them. Dramatically increasing every year, globalization can be a two-edged sword. It may generate economic growth and prosperity, but it also undermines long-established institutions. Generally, globalization has brought significant gains to higher-educated groups in wealthier countries, while doing little to boost developing countries and actually contributing to the erosion of traditional cultures. Upheavals born of globalization are key causes for rising levels of ethnic and religious conflict throughout the world.

Obviously, since all of us now live in a global village, we can no longer afford the luxury of ignoring our neighbors, no matter how distant they may seem to most of us. In this age of globalization, anthropology may not only provide humanity with useful insights concerning diversity, but it may also assist us in avoiding or overcoming significant problems born of that diversity. In countless social arenas, from schools to businesses to hospitals, anthropologists have done cross-cultural research that makes it possible for educators, businesspeople, and doctors to do their work more effectively.

For example, in the United States today, discrimination based on notions of race continues to be a serious issue affecting economic, political, and social relations. Far from being the biological reality it is supposed to be, anthropologists have shown that the concept of race (and the classification of human groups into higher and lower racial types) emerged in the 18th century as an ideological vehicle for justifying European dominance over Africans and American Indians. In fact, differences of skin color are simply surface adaptations to different climatic zones and have nothing to do with physical or mental capabilities. Indeed, geneticists find far more biological variation within any given human population than among them. In short, human "races" are divisive categories based on prejudice, false ideas of differences, and erroneous notions of the superiority of one's own group. Given the importance of this issue, race will be discussed further in Chapter 8.

A second example involves the issue of same-sex marriage. In 1989, Denmark became the first country to enact a comprehensive set of legal protections for same-sex couples, known as the Registered Partnership Act. At this writing, more than a half-dozen other countries and some individual states within the United States have passed similar laws, variously named, and numerous countries around the world are considering or have passed legislation providing people in homosexual unions the benefits and protections afforded by marriage. In some societies, including Spain, Canada, Belgium, and
the Netherlands, same-sex marriages are considered socially acceptable and allowed by law, even though opposite-sex marriages are far more common. As individuals, countries, and states struggle to define the boundaries of legal protections they will grant to same-sex couples, the anthropological perspective on marriage is useful. Anthropologists have documented same-sex marriages in human societies in various parts of the world, where they are regarded as acceptable under appropriate circumstances. Homosexual behavior occurs in the animal world just as it does among humans. The key difference between people and other animals is that human societies possess beliefs regarding homosexual behavior, just as they do for heterosexual behavior. An understanding of global variation in marriage patterns and sexual behavior does not dictate that one pattern is more right than another. It simply illustrates that all human societies define the boundaries for social relationships.


A final example relates to the common confusion of nation with state. Anthropology makes an important distinction between these two: States are politically organized territories that are internationally recognized, whereas nations are socially organized bodies of people, who share ethnicity—a common origin, language, and cultural heritage. For example, the Kurds constitute a nation, but their homeland is divided among several states: Iran, Iraq, Turkey, and Syria. The modern boundaries among these states were drawn up after World War I, with little regard for the region’s ethnic groups or nations. Similar processes have taken place throughout the world, especially in Asia and Africa, often making political conditions in these countries inherently unstable. As we will see in later chapters, states and nations rarely coincide, nations being split among different states, and states typically being controlled by members of one nation who commonly use their control to gain access to the land, resources, and labor of other nationalities within the state. Most of the armed conflicts in the world today, such as the many-layered conflicts among the peoples of the former Yugoslavia, are of this sort and are not mere acts of “tribalism” or “terrorism,” as commonly asserted.

As these examples show, ignorance about other peoples and their ways is a cause of serious problems throughout the world. Anthropology offers a way of looking at and understanding the world’s peoples—insights that are nothing less than basic skills for survival in this age of globalization.

Chapter Summary

- Anthropology is the study of humankind. In employing a scientific approach, anthropologists seek to produce a reasonably objective understanding of both human diversity and those things all humans have in common.
- Anthropology contains four major fields: physical anthropology, archaeology, linguistic anthropology, and cultural anthropology. Physical anthropology focuses on humans as biological organisms. Particular emphasis is given by physical anthropologists to tracing the evolutionary development of the human animal and studying biological variation within the species today. Forensics is an example of applied physical anthropology. Archaeologists study human cultures through the recovery and analysis of material remains and environmental data. Linguists, who study human languages, may deal with the description of a language, with the history of languages, or how languages are used in particular social settings. Cultural anthropologists study humans in terms of their cultures, the often-unconscious standards by which social groups operate. Medical anthropology is a growing specialization that cuts across all the subdisciplines.
- Within all of anthropology’s subdisciplines, one can find applied anthropologists who utilize the discipline’s unique research methodology toward solving practical problems.
- Some cultural anthropologists are ethnographers, who do a particular kind of hands-on fieldwork known as participant observation. They produce a detailed record of a specific culture in writing (and/or visual imagery) known as an ethnography. Other cultural anthropologists are also ethnologists, who study and analyze cultures from a comparative or historical point of view, utilizing ethnographic accounts. Often, they focus on a particular aspect of culture, such as religious or economic practices.
- Unique among the sciences and humanities, anthropology has long emphasized the study of non-Western societies and a holistic approach, which aims to formulate theoretically valid explanations and interpretations of human diversity based on detailed studies of all aspects of human biology, behavior, and beliefs in all known societies, past and present.
- Anthropologists are concerned with the objective and systematic study of humankind. The comparative method is key
to all branches of anthropology. Anthropologists make broad comparisons among peoples and cultures past and present, related species, and fossil groups.

- In anthropology, the humanities, social sciences, and natural sciences come together into a genuinely humanistic science. Anthropology's link with the humanities can be seen in its concern with people's beliefs, values, languages, arts, and literature—oral as well as written—but above all in its attempt to convey the experience of living in different cultures. As both science and humanity, anthropology has essential insights to offer the modern world, particularly in this era of globalization when understanding our neighbors in the global village has become a matter of survival for all.

**Key Terms**

- anthropology
- holistic perspective
- culture-bound
- applied anthropology
- physical anthropology
- molecular anthropology
- paleoanthropology
- biocultural
- primatology
- forensic anthropology
- archaeology
- cultural resource management
- linguistic anthropology
- cultural anthropology
- culture
- ethnography
- fieldwork
- participant observation
- ethnology
- medical anthropology
- empirical
- hypothesis
- theory
- globalization

**Questions for Reflection**

1. Anthropology uses a holistic approach to explain all aspects of human beliefs, behavior and biology. How might anthropology challenge your personal perspective on the following questions: Where did we come from? Why do we act in certain ways? What makes us tick?

2. From the holistic anthropological perspective, humans have one leg in culture and the other in nature. Are there examples from your life that illustrate the interconnectedness of human biology and culture?

3. Globalization can be described as a two-edged sword. How does it foster growth and destruction simultaneously?

4. The textbook definitions of state and nation are based on scientific distinctions between both organizational types. However, this distinction is commonly lost in everyday language. Consider, for instance, the names United States of America and the United Nations.

5. The Biocultural Connection in this chapter contrasts different cultural perspectives on "brain death," while the Original Study features a discussion about traditional Zulu healers and their role in dealing with AIDS victims. What do these two accounts suggest about the role of applied anthropology in dealing with cross-cultural health issues around the world?

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