

BASIC CONCEPTS AND METHODS IN ANTHROPOLOGY

PART

I

THIS PART OF THE TEXT ADDRESSES THE CORE CONCEPTS AND METHODS OF CULTURAL ANTHROPOLOGY. Chapter 1 describes the various subfields of anthropology together with the uniqueness of the anthropological approach to the study of humans. Central to our field's perspective is the concept of culture, which is explored in Chapter 2 by considering various definitions and delineating the unique features of culture. A discussion of recent critiques of the culture concept is also included. In addition, the text examines the anthropological perspective on culture, ethnicity, and race in light of the data from biological anthropology. Next, given that anthropologists gather most of their primary data from field situations, the methods and challenges of ethnographic fieldwork are

described in Chapter 3 using examples from my personal experiences. Finally, Chapter 4 turns to language, the symbolic system on which culture depends, and outlines the essential approaches of linguistic anthropology.

The chapters included in Part I are those that provide the foundation concepts and approaches of cultural anthropology. These are the platforms on which the remainder of the topics and chapters will build. The primary goal of the chapters in this part of the book is to provide you with the background for further analysis of cultural similarities and differences presented in Parts II and III. Practical applications of anthropology to your life will become evident as you follow the suggestions given in the Try This boxes in each chapter.

CHAPTER

1

Anthropology

What Are Its Subfields and Perspectives?



As we view ourselves through anthropological lenses, each day we can experience a world made more interesting and understandable. Today my morning began with some thoughts generated by archaeology, cultural anthropology, and biological anthropology. While sipping my first morning coffee, I glance at the kitchen floor. I make a mental note to sweep it because I spot a paper clip, two popcorn kernels, the top to a ballpoint pen, wisps of hair from the resident cat, and unidentifiable crumbs lying within three inches of the baseboard. The center of the floor is clean. I smile as I think about the implications of the *fringe effect*. This archaeological principle, which states that objects are more likely to accumulate next to walls than in traffic areas, helps to explain the distribution of artifacts in the archaeological record.

Issues and concepts of cultural anthropology flood my mind as I read a news headline and article about “honor killings” worldwide. The *San Francisco Chronicle* (January 23, 2008) article recounts several recent honor killings in the United States and Canada and notes that, according to the United Nations Population Fund, approximately 5,000 women worldwide are murdered this way each year. The so-called honor killings occur where traditional Islamic values hold that women embody the family honor. If a woman is raped, dishonor befalls the family; and some believe that only in killing her can the family honor be regained. The United Nations Commission on Human Rights lists more than fifteen countries where such killings have been recorded. Women’s rights activists are working to bring world attention to this problem and other violent acts against women, such as the much-publicized dowry deaths in India—brides killed because they did not bring a large-enough dowry into the marriage—or female

genital mutilation. Yet these acts reflect cultural values with long traditions in some cultures. Anthropology documents that our culture is powerful in shaping how we respond to such issues.

Another article (in my local paper) is about gangs in my city. The racial overtones of conflicts between gangs are central to the article. I sigh and contemplate whether biological anthropologists will ever be able to effectively communicate that the biological data do *not* support the validity of the notion of biological races. If the media would stick with the term *ethnic group* (a cultural grouping) rather than *racial group*, much scientific misunderstanding could be avoided. Ethnic identity is learned. No ethnic behaviors are inborn.

I’m running late. I quickly finish my breakfast (what I eat and when I eat are culturally learned behaviors), I shower and dress (ideals of personal cleanliness and styles of appropriate dress are also culturally learned behaviors), and I leave for my first class.

This recounting of the start of my day should have you thinking that anthropology is a broad field of study. It is, and this chapter introduces you to its subfields and their relationships.

The objectives of this chapter are to:

- ◆ Describe the goals of anthropology
- ◆ Introduce the scope and subfields of anthropology
- ◆ Delineate how anthropology is unique
- ◆ Explain how anthropology is a scientific discipline

◀ Anthropologist Ed Tronick studies child development among the Efe in the Ituri Forest, Zaire.

Cultural anthropologists study the diversity of cultural adaptations, including shelter. There are similarities and differences between the structure of housing on this street in Tunisia and on the street where you live.



🌐 WHAT ANTHROPOLOGISTS STUDY

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See chapter outline and chapter overview.

Anthropology provides a window to our past, a mirror for our present, and a lens through which we look to the future. Anthropologists research, observe, analyze, and apply what they learn toward an understanding of the many variations of the human condition. A grounding in past human adaptations, both biological and cultural, contributes to our understanding of adaptations today.

The goals for anthropological research include (1) describing, explaining, and analyzing human cultural similarities and differences, (2) describing and assessing the cultural development of our species as revealed in the archaeological record, (3) describing and analyzing the biological evolution of the human species as evidenced in the fossil record, and (4) describing and explaining human biological diversity today. In other words, anthropologists want to understand us: *Homo sapiens*. This is an enormous task.

🌐 THE SUBFIELDS OF ANTHROPOLOGY

The word **anthropology** comes from the Greek terms *anthropos*, meaning man, and *logia* or *logos*, meaning science or study of. In other words, anthropology literally means the science or study of man. *Man* in this context refers to the human species in its entirety. Anthropology, being the science of man, has put us in a bit of an awkward position with the present focus on politically correct terminology. The alternatives *humankind* and *mankind*

anthropology

The science or study of *Homo sapiens* using a holistic approach.

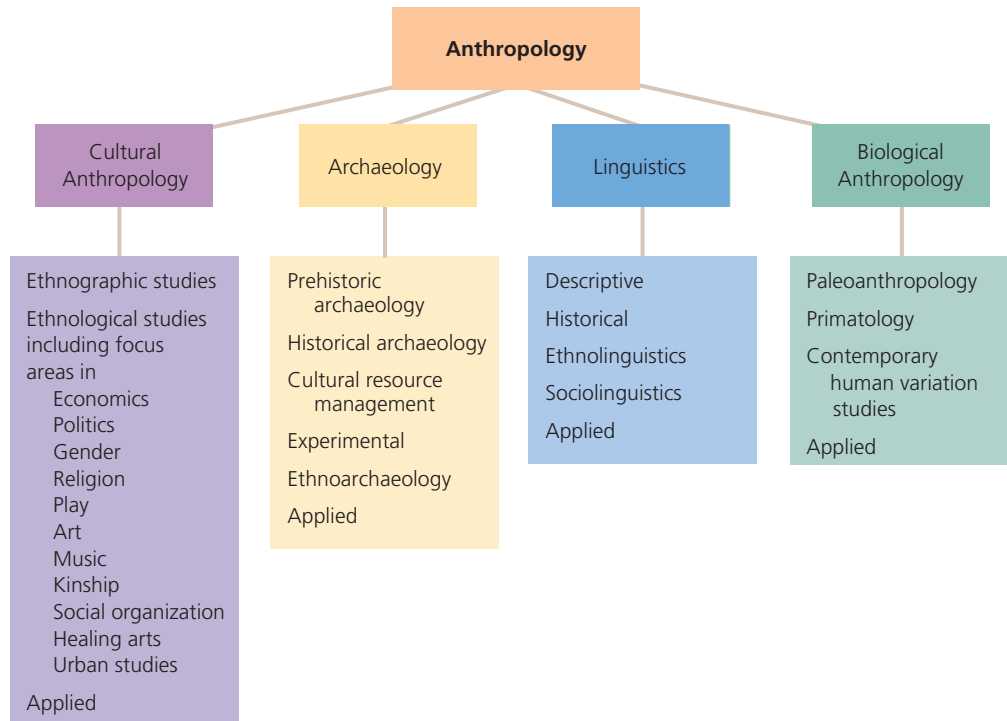


FIGURE 1.1 The Four Fields of Anthropology

still have *man* as a root, and *Homo sapiens* is too academic for everyday conversation. Most anthropologists settle for a potpourri of terms when referring to our species in the hope that they will not offend anyone and will manage to convey that their science includes all humans. The scope of our study of the human species includes all human groups, both cultural and biological, today and as they adapted and evolved in the past.

This text will follow the basic organization of the subfields of anthropology as recognized by the American Anthropological Association: cultural anthropology, archaeology, linguistics, and biological (also called physical) anthropology (Figure 1.1). Note that cultural anthropology, archaeology, and linguistics are all concerned with aspects of human culture. Many anthropologists add applied anthropology to this list as a fifth field of study, whereas others incorporate applied anthropology into each of anthropology's subfields.

Cultural Anthropology

Cultural anthropology is the description and comparison of the adaptations made by human groups to the diverse ecosystems of the earth. We call these adaptations *culture* (see Chapter 2 for an in-depth discussion

cultural anthropology

A subfield of anthropology that focuses on human sociocultural adaptations.

of this concept). Traditional areas of focus within cultural anthropology include ethnographic and ethnological research.

Ethnography is the descriptive study of one culture, subculture, or microculture based on fieldwork. The *field* situations can be quite diverse—in your own city or on the other side of the world; a whole community, a neighborhood, or a workplace. An ethnographer usually spends a minimum of one year in the field in order to record a complete yearly cycle of the culture. Most ethnographers realize, though, that one year is not nearly enough time to understand everything about a culture, so they commonly spend many years, off and on, with a particular culture or subculture, recording their way of life and how it changes. Other ethnographers focus on one aspect of the culture for a shorter period of time. For example, an anthropologist who is studying decision making within a large business corporation may spend a period of several months collecting data, reporting, and making recommendations. Often several anthropologists will study one culture together. Such ethnographic teams have been very successful because members can explore different questions and integrate their data into a more complete picture. These approaches are covered more fully in Chapter 3. Ethnographic works provide the specific data on which comparative ethnological studies are based.

Ethnology, the comparative study of cultures, presents analytical generalizations about human culture. The process leading to these generalizations involves explaining the similarities and differences in cultures. The subject of the comparison may be entire cultures or a particular aspect of culture such as gender, economics, violence, or shamanism. For example, a book titled *Tribal Economics* would be a comparative work that assesses how tribal cultures acquire food and other resources and how these resources are distributed. Such a work would be based on data about specific cultures that have been gathered in ethnographic fieldwork.

In its *Anthropology News* the American Anthropological Association publishes information from the four subfields, plus research interest groups (or sections) within the basic four subfields. To get an idea of the diverse interest areas in cultural anthropology, see Box 1.1.

ethnography

A written description of a culture based on data gathered from fieldwork.

ethnology

The comparative study of cultures with the aim of presenting analytical generalizations about human culture.

archaeology

The systematic study of the artifacts and ecofacts from past cultures as a means of reconstructing past lifeways.

Archaeology

Archaeology is the systematic study of the remains of previous cultures as a means of reconstructing the lifeways of people who lived in the past. To put it another way, archaeologists focus on culture, the culture of people we cannot interview or observe. We have only whatever remains in the sites they once occupied, which archaeologists use to study how these peoples adapted to their natural and sociocultural environments and how culture spread and changed through time. The goals of archaeological research are (1) to establish time lines for past cultures, (2) to describe

 BOX 1.1

The following is a sample of the American Anthropological Association sections that relate to cultural anthropology:

- American Ethnological Society
- Anthropology and Environment Section
- Anthropology of Religion Section
- Association for Africanist Anthropology
- Association for Feminist Anthropology
- Association for Political and Legal Anthropology
- Council on Anthropology and Education
- Council for Museum Anthropology
- Council for Nutritional Anthropology
- Culture and Agriculture Section
- National Association for the Practice of Anthropology
- Society for the Anthropology of Consciousness
- Society for the Anthropology of Work
- Society for Cultural Anthropology
- Society for Humanistic Anthropology
- Society for Medical Anthropology
- Society for Psychological Anthropology
- Society for Urban, National, Transnational/Global Anthropology
- Society for Visual Anthropology

Professionals doing research in these areas use ethnographic and ethnological methods in their studies.

past lifeways, and (3) to understand the process of adaptation and change in prehistory.

There are a number of areas of focus in archaeology. **Prehistoric archaeology** is the study of the remains of cultures that existed before the time of written records. Prehistoric archaeologists analyze the **artifacts** (objects made or altered by humans, such as spear points, baskets, or computers), **features** (nonportable evidence of technology such as roadways, building foundations, and fire hearths), and **ecofacts** (natural materials such as plant or animal remains—fossils, pollen, and soils) that are found in archaeological **sites** (locations where evidence of human activity is found). This is one of the fields of anthropology that has most captured the imagination of the public. The Indiana Jones movies make archaeology appear romantic and adventuresome. It is, but not in the way portrayed in the films. (Indy, by the way, wasn't really an anthropological archaeologist. He was a classical archaeologist. Classical archaeology is primarily

prehistoric archaeology

The analysis of the material remains of cultures that existed before the time of written records.

artifacts

Objects made by humans.

features

Nonportable evidence of technology at archaeological sites, such as roadways and fire hearths.

ecofacts

The remains of plants, animals, or naturally occurring nonorganic substances.

site

The location of archaeological remains such as artifacts and features.



Anasazi

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See Internet exercise.

historical archaeology

A subfield of archaeology that studies the remains of cultures that existed during the time of written records but about which little was recorded.

cultural resource management (CRM)

The conservation and management of archaeological sites to protect them.

experimental archaeology

An aspect of archaeology in which experiments are performed to learn how prehistoric artifacts and features were made and used.

ethnoarchaeology

The study of contemporary societies' behaviors and uses of material objects in order to better understand how human behavior translates into the archaeological record.

concerned with the art and architecture of the classical civilizations of the Mediterranean region. Such archaeologists are associated with university art history and classics departments.) Anthropological archaeologists work to reconstruct as much as possible about past cultures based on careful excavation, measurement, and recording of sites, and they do a great deal of scientific detective work to analyze their data before reporting on how ancient people lived. The romance and adventure of the actual excavation work, especially in remote regions, is more often, as Sir Mortimer Wheeler put it, “adventure remembered in tranquillity, devoid of the ills and anxieties, fleas, fevers, thirst, and toothache, which are liable to be the more insistent experience” (Wheeler 1956: 241).

Historical archaeology is the study of the remains of cultures and subcultures that have written records but about which little if anything was recorded. Historical archaeology, in other words, supplements historical evidence about the past. For example, the everyday lives of people were seldom recorded in colonial North America. Few if any written records exist to tell us about certain segments of past populations, such as the poor, disadvantaged, minorities, immigrants, and slaves. Information about how slaves lived on southern plantations in colonial America has been one focal point of research in this area. There are, of course, written records of what plantation owners paid for slaves and the number of slaves working on plantations, but there are few written accounts of how the slaves lived. Archaeological excavations of slave quarters have revealed details of their lives and their many valuable contributions to American colonial culture and economics. For example, it was African rice farming techniques brought to America by slaves and implemented by them that made many Carolina plantation owners wealthy. Thus historical archaeology is filling gaps in our knowledge of American history and correcting history that was once based primarily on documents written by the powerful and wealthy. The same careful methods of excavation and recording of data that are used in prehistoric digs are used in historical archaeology.

Cultural resource management (CRM), is a growing field for individuals with degrees in archaeology. CRM specialists work on threatened archaeological sites, produce environmental impact reports, and do salvage digs on sites that will be destroyed by contemporary building. **Experimental archaeology** plays an important part in the analysis of prehistoric artifacts and technology. For example, researchers try to duplicate the prehistoric techniques of manufacturing stone tools and other artifacts to better understand and appreciate the technological knowledge of prehistoric peoples. **Ethnoarchaeology** also contributes to the analysis of artifacts and ecofacts by observing present-day societies' behaviors and uses of material objects. For example, studying how contemporary hunters and gatherers butcher and transport meat to their camps helps the archaeologist to interpret bones and their distribution in prehistoric sites.



These ancient Anasazi ruins in Colorado are features that help archaeologists to reconstruct the lifeways of early inhabitants of the American Southwest.

Applied archaeology is a focus area in archaeology that uses the methods of archaeology to study *contemporary* material culture with the aim of solving specific problems. Some CRM, experimental archaeology, and ethnoarchaeology fall in this category. The most widely known work in applied archaeology began at the University of Arizona in the 1970s under the direction of archaeologist William Rathje, who wanted to use archaeological methods to investigate patterns of household waste within the city of Tucson. This research is popularly called “garbology,” or the study of garbage. Some archaeologists refer to it as **behavioral archaeology** because studies such as Rathje’s look at the relationships between contemporary people’s material culture and their behaviors. Just as the excavations of trash heaps (technically termed **middens**, or areas of discarded items) by prehistoric archaeologists reveal information about the diet and artifacts of past peoples, the trash of contemporary populations reveals information about societies today. These studies of what people discard can give us information that helps direct social programs and better understand waste disposal processes. In Rathje’s

applied archaeology

The use of archaeological methods to study the material culture of contemporary societies. Data can be used to develop social programs.

behavioral archaeology

An area of applied archaeology that focuses on the relationships between material culture and people’s behavior.

midden

Archaeological term to designate an area of discard; a trash heap.

Garbage Project, front-door interviewers found that 15 percent of respondents admitted to consuming beer. The trash discard data from this same area showed that over 80 percent of households consumed beer and 54 percent discarded over eight cans per week. Many other discrepancies were found between what householders told interviewers about their food and drink consumption and what they actually ate and drank. Data from the Garbage Project were so useful that this research expanded to include projects in other cities and an ongoing study of contemporary landfills.

Linguistics

Linguistics is the study of language. Anthropological linguists do not necessarily speak several languages (such a person is called a polyglot). Rather, linguists study language—how language is formed and how it works, the history and development of language, and its relationship to other aspects of culture. Linguistics became a part of anthropology for two reasons. First, language is the cornerstone of culture (more about culture in Chapter 2). Second, to do ethnographic fieldwork, anthropologists often had to begin by writing their own dictionaries and grammars of a native language. Today linguistics encompasses a number of research areas, including descriptive linguistics, historical linguistics, ethnolinguistics, and sociolinguistics.

Descriptive linguistics focuses on the mechanics of language. The linguist must first describe the sounds used in the language under study (called *phonology*). Sounds can be described according to the anatomical parts that are used to create them, such as the teeth, tongue, lips, voice, or lack of voice. Morphology and syntax, other aspects of describing a language, involve the identification of the smallest units of meaning in a language (morphemes) and the rules for combining words into sentences, what would popularly be called grammar (more about this in Chapter 4).

Historical linguistics works to reconstruct the history of languages, including their development and relationship to other languages. There are some limitations to historical linguistic research because not all contemporary languages have written forms, and many languages of past peoples did not have written records. Linguists can describe the comparative structure of contemporary related languages, however, and then use these comparisons to reconstruct some aspects of earlier forms of the root language.

Other categories of study in linguistic anthropology include ethnolinguistics and sociolinguistics. **Ethnolinguistics** is a specialized field that analyzes the relationship between a language and culture. It investigates questions such as Does your language create your reality? **Sociolinguistics**

linguistics

A subfield of anthropology that includes the study of the structure, history, and social aspects of human language.

descriptive linguistics

The part of anthropological linguistics that focuses on the mechanics of language.

historical linguistics

The study of the history of languages, including their development and relationship to other languages.

ethnolinguistics

A field of study in linguistics that analyzes the relationship between a language and culture.

sociolinguistics

A subfield of linguistics that analyzes the relationship between language and culture with a focus on how people speak in social contexts.



TRY THIS Compare

Select another of your introductory-level college courses—history, zoology, psychology, English, geography—and list three specific ways that the subject matter of anthropology is different from these disciplines and one way it is the same.

evaluates the relationship between language and culture with a focus on how people speak in social contexts such as in the workplace or at home (see Chapter 4 for details).

Biological Anthropology

Biological anthropology (also called **physical anthropology**) studies *Homo sapiens* as biological beings both in the present and in the past. Scientists working in this subfield seek to describe and explain the biological evolution of and variations in our species. To this end they also study the closely related primates (prosimians, monkeys, and apes) because their evolutionary history is similar to and related to ours. Three major areas of focus in biological anthropology include paleoanthropology, primatology, and contemporary human variation studies.

Paleoanthropology (the root word *paleo* means ancient) is the study of human biological evolution through an examination of the fossils of our ancient ancestors and relatives. Paleoanthropology relies heavily on comparative anatomy and evolutionary biology. For example, the researcher must know comparative details of the structure of leg bones between animals who walk on four legs (**quadrupeds**) and those who walk on two (**bipeds**) to determine whether an ancient femur (upper leg bone) belonged to an individual who walked bipedally. Some clues to bipedalism are found in the angle of the neck of the femur and in the distribution of weight, when standing, based on this angle.

The understanding and interpretation of the past requires an integration of information from many areas. Paleoanthropologists share information and interact with archaeologists as well as specialists from other fields such as geology and chemistry. For example, to understand the environment occupied by a fossil ancestor who lived fifty thousand years ago, the paleoanthropologist must collaborate with geologists who specialize in reconstructing paleoclimates and archaeologists who can reconstruct how this fossil ancestor made the stone tools found in the site.

Primatology is the study of our nearest animal relatives—the **primates**. This area of biological anthropology includes an investigation of the anatomy, physiology, genetics, and behaviors of apes, monkeys, and prosimians. We share many biological features with this group of animals, and data about their adaptations aid us in understanding *Homo sapiens*.

biological anthropology

A subfield of anthropology that studies humans as a biological species. Also called physical anthropology.

physical anthropology

See *biological anthropology*.

paleoanthropology

The study of human biological evolution.

quadruped

An animal that walks on four limbs.

biped

An animal that walks on two legs.

primatology

The study of nonhuman primates.

primates

Animals in the order Primates; includes humans, apes, monkeys, and prosimians.

Homo sapiens

The taxonomic designation for humans.



The Lucy fossils from the Hadar region of Ethiopia are examples of evidence that can be used by paleoanthropologists to reconstruct our early ancestors. Note the complete upper leg bone (femur). The angle of the head of the femur, plus the features of the pelvis, indicate that Lucy walked bipedally.

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See Internet exercise.

A common misunderstanding about primate research regards our relationship to chimpanzees. They are clearly our closest relative in the animal world, but they do not represent our ancestor. Rather, chimps and humans diverged from a common ancestor about eight to ten million years ago, and since then each species has evolved separately.

Contemporary human variation studies, another area of research in biological anthropology, focus on living humans and how our anatomy and physiology vary. Genetics, including DNA research, contributes greatly to such studies, the long-range goal of which is to account for and offer explanations for the variation among humans, as well as to demonstrate our many similarities and shared biological adaptations. For example, if a difference in the frequency of a genetic disease is established for one particular population compared to others, research is undertaken to explain the frequency from an evolutionary viewpoint. Anthropologists working in this area often collaborate with geneticists and medical scientists.

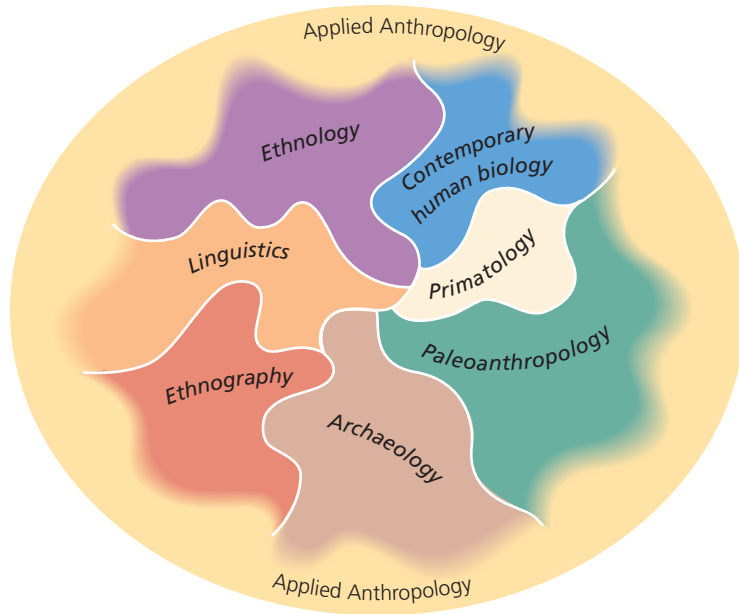
Specialists known as **forensic anthropologists** apply their knowledge to legal issues. They are usually trained in biological anthropology, although they work closely with archaeologists who recover human remains. Forensic studies on human skeletal material can reveal such information as the sex of the individual, cause of death, diseases suffered, and nutritional deficiencies. This information can be useful in helping to identify human remains in natural disasters as well as to identify cause of death in homicide cases.

🌐 HOW ANTHROPOLOGY IS UNIQUE

Several key features of how anthropologists view *Homo sapiens* make our perspective unique: holism, fieldwork, the comparative method, and the perspective of cultural relativism. Other academic disciplines also use some of these features—biologists, for example, do fieldwork. Anthropology, however, is the only science that pulls all of these approaches together to study humanity.

Anthropology Is Holistic

Anthropology is a **holistic** science, which means that anthropologists view *Homo sapiens*, and the evolutionary ancestors of modern humans, in the broadest context possible—as both biological beings and cultural beings through a time span of approximately five million years (Figure 1.2). In other words, we study everything about people for as long as humans and their immediate humanlike precursors have existed as a species. We keep this broad, integrated perspective no matter what specific detail of human life we might be investigating. For example, a paleoanthropologist will

**FIGURE 1.2**

Anthropology is a holistic study of all cultural and biological aspects of the human species. Cultural anthropology includes ethnographic and ethnological studies as well as linguistics and archaeology. Biological anthropology includes paleoanthropology, primatology, and studies in contemporary human biology. Applied research encompasses all of anthropology.

consider the cultural adaptations (including tool use and possible social behavior) of the biological ancestors of modern humans. The broad time frame covered by anthropology is significant because anthropologists believe that any insights about contemporary human adaptations, either biological or cultural, should be made with an eye to past adaptations.

Anthropologists Do Fieldwork

Specialists in the various subfields of anthropology work to maintain their holistic vision. An extension of holism is to collect primary data in natural field settings. In the following paragraphs I discuss the types of data gathered in the field by the different kinds of anthropologists.

Cultural Anthropology in the Field. Cultural anthropologists gather their primary data in the field. Insights about peoples and their lifestyles take on a whole new dimension when one experiences their culture firsthand. Anthropologists reason that to describe and explain the cultural adaptations and worldview of a tribe in Brazil, an urban gang in the United States, or cannery workers in Japan, one must participate in the culture. We believe that to really know another culture, subculture, or microculture one must commit to spending extensive time in that cultural environment. Ethnographic data, as noted earlier in this chapter, are the raw materials with which comparative analysis is done. Chapter 3 gives an in-depth discussion of the methods of ethnographic fieldwork.

contemporary human variation studies

The study of the biological variation in living humans.

forensic anthropologist

An applied biological anthropologist concerned with legal issues. Frequently focuses on the identification of skeletal material and the cause of death.

holistic

An integrated perspective that assumes interrelationships among the parts of a subject. Anthropology studies humans from a holistic perspective, including both biological and cultural aspects.

ANTHROPOLOGY AROUND US

Forensic Anthropology in the News

Forensics is a hot topic in the media. Forensic anthropologists identify the bones and teeth of missing persons, use skull comparisons to determine the sons of an Egyptian pharaoh, and run DNA analysis to determine if bones buried in a Spanish cathedral are those of Christopher Columbus. They determine the age and sex of skeletal remains and analyze impact wounds on bones to determine what implement made the wound. All of these topics of investigation have made headlines in recent years. The methods and data of forensic anthropologists are exhibited weekly on television dramas and in news articles, though these sources often do not distinguish between forensic anthropologists, forensic pathologists (medical doctors), odontologists (dentists), and police homicide investigators. The American Board of Forensic Anthropologists provides a rigorous program of certification in forensic anthropology that is similar to board certifications in medical specialty areas.

Forensic anthropology illustrates the holistic nature of anthropology. Human cultural behaviors in the way people use their bodies have an effect on bone development and the development of diseases such as osteoarthritis. A recent book, *Atlas of Occupational Markers on Human Remains* by Luigi Capasso, Kenneth A. R. Kennedy, and Cynthia A. Wilczak (Teramo, Italy: edigrafital SpA-S. Atto, 1999), describes nearly 150 conditions that reflect specific behaviors. Some of these conditions have nontechnical names such as Pipe Smoker's Teeth (mechanical marks on upper and lower incisor teeth caused by pipe smoking and regularly holding other hard objects in the teeth, such as a police officer's whistle) and



Floorwalker's Foot (bony spurs and bursitis evidenced in several locations and caused by walking on hard pavement). The presence of such conditions helps forensic experts identify aspects of the lifestyle or work habits of the person whose skeleton is under investigation.

🕒 Can you suggest the type of bone damage evidence that results from travel over rough terrain, such as on a snowmobile? Go to www.news.cornell.edu/releases/april99/occu_markers.hrs.html to find out if you are correct.



Anthropologists collect data primarily in field settings. Nadine R. Peacock is shown interacting with Efe individuals in the Ituri rain forest of the Congo.

Archaeology in the Field. Archaeologists must dig and recover artifacts and ecofacts before they can begin the technical analysis of these materials in the lab. Fieldwork is the first step of data acquisition. Each archaeological site is mapped and recorded before digging begins. Excavation and measurement are done with care so that the exact location of each artifact, ecofact, and feature is recorded before any items are removed from the ground. Such detail is important for revealing patterns of artifact distribution. For example, the location of food preparation tools may always be inside of the house wall features for one prehistoric culture and outside of the walls for another.

Linguistics in the Field. Primary data are also gathered in the field for most aspects of linguistics. Descriptive linguistics depends on interactions with native speakers. Although this can take place in a laboratory setting, the majority of the initial work of describing the structure and other aspects of languages has been done in field settings. This fieldwork may be important to later understandings of how the language is used by individuals, and it may reveal features such as special language forms used when in the presence of elders.

Biological Anthropology in the Field. Paleoanthropologists who analyze and explain human evolution must have fossils to evaluate; to gather fossils they go into the field. The idea of human fossil hunters searching the barren, exposed early Pleistocene layers of Africa's Olduvai Gorge tickles



the soul of adventure in all of us. The field studies of primatologists Jane Goodall, who studies chimpanzees at the Gombe Preserve in Tanzania, and Dian Fossey, who observed gorillas in Rwanda, made world headlines and offered new perspectives on the behavior of these animals in their natural habitats. We now have decades of field studies focusing on the Gombe chimpanzees and another group of chimps on the Ivory Coast. The insights that we have gained about their behaviors are surprising and humbling. Observations of the Tai population of chimpanzees on the Ivory Coast of Africa, for example, show mother chimps *demonstrating* tool use to their offspring in the form of using rocks for cracking nuts.

The investigation of contemporary primate anatomy combines field observations with laboratory work. Research on chimpanzee locomotor anatomy involves describing the locomotor behavior of chimps in their natural habitat plus measuring, dissecting, and describing muscles and bones of deceased chimpanzees in the laboratory.

Biological anthropologists who study the variations in contemporary humans also gather data in the field—blood samples, specimens for DNA testing, morphological measurements—as they endeavor to explain human biological diversity. Of course, the follow-up analysis of much of these data is accomplished using computer and lab facilities.

Anthropologists Focus on the Comparative Method

Anthropologists gather and compare as much data as possible before making generalizations. We do not rely on data from just one study to make interpretative or analytical statements about the human condition. To examine the structure of human families, for example, a cultural anthropologist would look at data in the Human Relations Area Files that have been gathered from field studies in hundreds of different cultures. Features of family structure would be compared, and the similarities and differences would be described, numerically tabulated, and statistically analyzed. These data would be used to generate hypotheses to explain the variations noted, which in turn would necessitate formulating ways to test the hypotheses.

The **comparative method** is also used in archaeology, linguistics, and biological anthropology. Paleoanthropologists use the comparative method when a new fossil skull is discovered. Comparative anatomical studies are carried out on many specimens before tentative assessments and interpretations are given. The interpretation is tentative because we continue to compare each new fossil as it is discovered; with more comparative data, the earlier interpretations may need adjustments. As you might imagine, the comparative approach makes for some lively discussions among anthropologists, because the data aren't always as clear as we would wish. The comparative method as described here is part of scientifically oriented anthropology. **Humanistic anthropology** focuses

comparative method

The methodological approach of comparing data. Anthropologists use the comparative method.

humanistic anthropology

A label for research that focuses on individuals and their creative responses to cultural and historical forces.



Members of cultures that do not eat protein-rich insects often react ethnocentrically when they see this behavior in other cultures. Here a Thai girl is enjoying a snack of fried grasshopper.

on the uniqueness of every individual and every culture and would not use the comparative method.

Anthropologists Use the Perspective of Cultural Relativism

One additional perspective of anthropology adds to its uniqueness. Anthropologists approach the study of other cultures using a perspective known as cultural relativism. **Cultural relativism** is the idea that any aspect of a culture must be viewed and evaluated within the context of that culture. The job of the anthropologist who is applying this perspective is to describe a cultural trait, custom, belief, activity, or any part of a culture and to show how it fits into the values and traditions of that cultural system. In other words, the anthropologist objectively describes a custom and then discusses how it is viewed within that culture. **Ethnocentrism**, the opposite of cultural relativism, makes value judgments when describing aspects of another culture. The value judgment is based on comparing elements of one's own culture with those of another culture; the other culture is "wrong," "weird," "strange," "unethical," or "backward." Any value-laden statement that uses one's own culture as the basis for the comparison reflects cultural ethnocentrism.

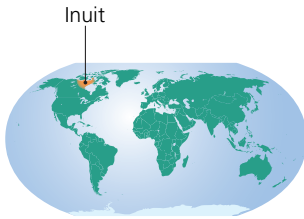
Consider this statement uttered by a non-Inuit: "The Inuit eat raw seal liver and they relish this traditional food." This statement is made from a relativistic perspective. It describes what the Inuit do and how they

cultural relativism

The perspective that any aspect of a culture must be viewed and evaluated within the context of that culture.

ethnocentrism

Making value judgments based on one's own culture when describing aspects of another culture.



feel about it. Now, consider a person who is not an Inuit making this statement: “The Inuit have the repulsive custom of eating raw seal liver.” This is an ethnocentric statement because the term *repulsive* evaluates the eating of raw liver from the cultural viewpoint of the speaker.

Ethnocentrism is a part of everyone and of every culture. We all judge other cultures’ customs and behaviors based on our own customs and behaviors. Ethnocentrism is socially transmitted. One rarely speaks of it, and even your best friend will only rarely tell you that it is showing. Its symptoms can appear at any time, but they are most apparent when traveling in another country or watching a television program concerning other cultures. A trip to your local shopping center may also trigger ethnocentrism if you encounter people of other cultures and subcultures who dress, speak, and act differently than you do. It is important to recognize that cultural ethnocentrism is different from egocentrism, where one makes negative value judgments that are based on personal belief or behavior. Ethnocentrism is based on the culture of a social group.

Ethnocentrism can lead to conflict and misunderstanding. It can be considered to have adaptive value, however, because it may create social cohesion and help to hold a group together. The approach of cultural relativism, by contrast, can lead to an appreciation for, and understanding of, other cultures. In the previous example, a person with a relativistic approach to world cultures would acknowledge that raw seal liver is different from the food she eats. Further, she would acknowledge that if she grew up in a culture where parents and siblings all ate raw liver, she would probably enjoy eating it too.

Taking a perspective of cultural relativism does not mean that you should start eating raw meat. It means that you understand that behavioral differences, and the values behind them, are learned and are simply different. Such an approach can contribute to greater awareness, tolerance, and acceptance of people with different cultural backgrounds. Throughout the history of cultural anthropology as an academic discipline, the perspective of cultural relativism has guided research efforts. Figure 1.3 shows that a reliance on fieldwork, the comparative method, and a holistic perspective, together with cultural relativism, combine to make anthropology a unique academic discipline.



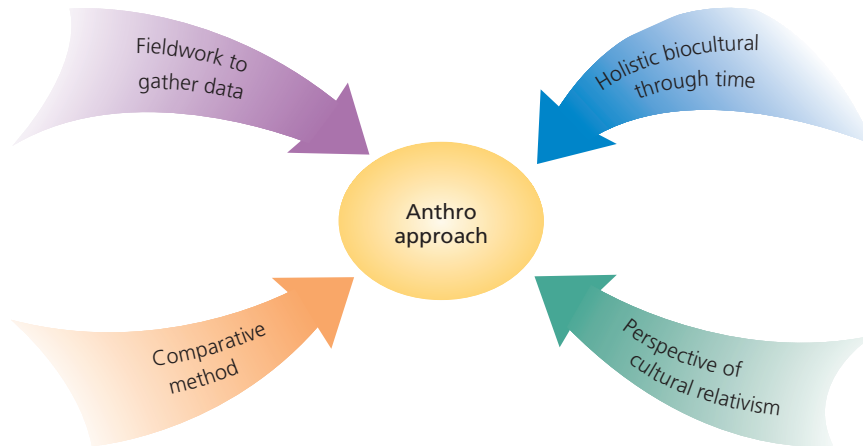
TRY THIS

Consider

Could you eat raw liver for your next meal? Is it possible for anyone to set aside all of their ethnocentric attitudes?

Should There Be Any Universal Values?

It seems reasonable to be relativistic about food preferences and modes of food consumption. But how can an American be culturally relativistic about practices such as female circumcision? Most Americans and peoples of many other cultures would say unequivocally that this practice is wrong, bad, evil. Why? If we are being completely candid, we would have to admit that it is wrong mainly because we don’t do it. We would

**FIGURE 1.3**

These four approaches, when used in concert with one another, give anthropology its unique perspective.

cite health, safety, and feminist issues and universal human rights to justify our objections to the practice. For the record, not all anthropologists agree about the degree to which we should apply cultural relativism or whether there is or should be a universal set of values for evaluating human rights.

THE SCIENTIFIC APPROACH IN ANTHROPOLOGY

To explain humanity, anthropologists apply a scientific approach. One of my favorite statements about science was made by Eugenie C. Scott of the National Center for Science Education. Scott states, “The goal of science is to explain how the natural world works. As humans are part of the natural world, they can be studied scientifically” (Scott 1996: 52). In his book *Reclaiming a Scientific Anthropology* (1997), Lawrence Kuznar recaps the history of anthropological science and delineates its current position, goals, and methodological principles. The goals include “knowing the empirical world, being able to explain and predict phenomena in the world, and generating progressively more accurate knowledge by proposing theories that can be scrutinized and refined through time” (Kuznar 1997: 30). Anthropologists strive to reach these goals by using the scientific method.

A key feature of the scientific method is the formulation of hypotheses to explain relationships among data. A hypothesis is an educated guess that explains a given phenomenon. Criteria used to judge the worth of a hypothesis include whether it is relevant, testable, and compatible with previous well-established hypotheses. Other important characteristics of a hypothesis include its power to explain or predict and its simplicity. A



TRY THIS

Ponder

Can there be universal human rights? What issues can be raised when trying to assert universal human rights? Who decides the bases for universal human rights?



TRY THIS

Hypothesize

Formulate a hypothesis that could account for the different treatment of time in Brazilian culture as compared to North American culture. Offer two ways to test your hypothesis.

hypothesis, then, is not just a guess but a reasonable explanation that is formulated after a problem area is identified and background investigation has been completed. Anthropologists use the scientific method when they include the formulation and testing of hypotheses with a careful definition of terms, quantification, and application of mathematical principles such as statistical methods.

You and I make hypotheses all the time. If students are fifteen minutes late to class, I might hypothesize that they ignored their alarm clock this morning and slept in. Or I might hypothesize that if the fog was thick in the rural areas this morning, then students might have had to drive more slowly, thus making them late to class. Both of these hypotheses are relevant, simple, and compatible with previous well-established hypotheses, and they explain the tardiness of the students. There are simple and obvious ways to test both of the hypotheses.

If I am late to class, you might make the same two hypotheses. These are two very probable and compatible reasons for lateness to class in our North American culture. If I were a visiting professor in a Brazilian university, I would need to formulate my hypotheses in ways that are relevant to Brazilian culture. Being fifteen minutes tardy in Brazil is culturally equal to being about one to two minutes late in North American culture and therefore is of no importance. No explanation for the lateness is needed. By using a scientific approach, one can decrease the likelihood of ethnocentric bias affecting the explanations given as one researches behavior in other cultures.

If the scientific method is used in trying to explain a phenomenon, then science is being done. Since anthropologists use the scientific method as they work to explain human biological evolution and variation and human cultural behavior, anthropology is a science. The social (or behavioral) sciences, where cultural anthropology is placed, have not been particularly effective in communicating that we use scientific methods.

There are a number of significant difficulties in consistently using the scientific method when investigating and explaining human cultural behavior. First, anthropologists are concerned with a very complex subject—human beings. No two humans have been raised in exactly the same way, nor have any two people had exactly the same life experiences. Second, anthropologists are often unable to isolate variables or perform experiments to test aspects of *Homo sapiens* in the same manner that other scientists carry out tests, in part because much of our research is based on observation in natural field settings where variables cannot be as easily controlled as they are in a laboratory setting. Another reason is that human behavioral researchers have ethical limitations, which does not mean that other sciences don't have ethical standards, but rather that additional standards are applied when we are dealing with human subjects. Finally, the explanations offered by anthropologists are often based on context. The context in which a behavior takes place must be considered. Therefore,

an explanation may not have wide application. In ideal scientific explanations, place should not affect the veracity of the explanation.

For example, if we strive to explain why polyandry (marriage of one woman to two or more men at the same time) is practiced in a culture, we begin with a thorough, objective description of all aspects of the culture we are studying. A hypothesis is formulated that takes into account what we know about this particular culture and what we know about other cultures where polyandry is practiced (the comparative method discussed earlier in this chapter). Then the hypothesis is tested. If the hypothesis holds true for the tests and data from other cultures show the same consistent correlations we found in the original society, we may be able to make a generalization about why polyandry is practiced. The formulation of such generalizations is one of the goals of cultural anthropology.

The desire to maintain large landholdings was cited as a reason for the practice of polyandry by Tibetans living in northern Nepal in the 1987 study by Melvyn C. Goldstein. In this particular case, brothers share a wife, thus keeping the male-owned lands from being split up as property is passed from one generation to the next. Prior to Goldstein's work, one explanation for the practice of polyandry was that there was a shortage of women as a result of the practice of female infanticide. Goldstein's research revealed that there had never been institutionalized female infanticide in Tibet. Another early explanation for the practice of polyandry suggested that poor soil fertility and crop yields required brothers to share a wife in order to avoid starvation. Although ecological factors do play a role in the practice of polyandry in Tibet, Goldstein did not find polyandry to be a means of preventing starvation.

Of course, you might read this and think, Well, why not just *ask* members of the culture why they practice polyandry? Good question. Although every culture has members who are quite analytical and very helpful to the anthropologist, most people in a culture don't know why particular customs are followed.

⊗ POSTMODERNISM IN ANTHROPOLOGY

Postmodernists place the discipline of anthropology in the humanities rather than in the sciences. A humanistic view focuses on the uniqueness of each individual and on individual creativity within the confines of society and culture. This means that ethnographers must look to individual informants and record their voices and perspectives. It also means that the postmodern approach downplays the comparative method and quantitative analysis.

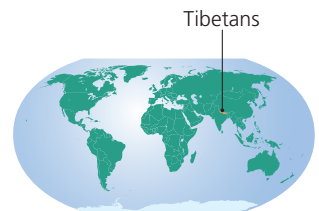
Postmodernism is considered a theoretical perspective with different meanings to different people (see Marcus and Fischer 1986; Fischer 1997;



TRY THIS

Explain

You are a member of a culture where the primary marriage practice is monogamy. Explain why we have only one spouse at a time.



postmodernist

One who uses the paradigm of postmodernism.

postmodernism

A complex theoretical perspective that applies a humanistic approach to ethnography with a focus on individuals and their voices.

and Kuper 1999). Basically anthropologists with this theoretical perspective question the use of the scientific method in anthropology. They view culture as an abstraction. Further, they argue that it is impossible to be objective when studying other cultures. They focus on the premise that ethnographer objectivity is not possible because observers are always influenced by their own culture, gender, and social position, as well as by their feelings about what they observe. Therefore postmodernists claim that most theoretical constructs are not valid.

Although the postmodern movement is controversial, it has influenced anthropologists to be sensitive to issues such as power (as in when the ethnographer comes from a powerful culture and the native person being interviewed does not). It has also contributed to advocacy for a more vigorous representation of the native viewpoint. Many ethnographers, both those who use a scientific approach and those who use a postmodernist approach, now request that natives read and comment on their ethnographic data before they are published.

SUMMARY

Anthropology is the study of humans throughout the world over approximately the last 5 million years. It is a holistic discipline, meaning that it views humans in the broadest possible context as both biological and cultural entities. This perspective is maintained regardless of the specific research undertaken. The four subfields of anthropology as recognized by the American Anthropological Association are cultural anthropology, archaeology, linguistics, and biological (or physical) anthropology. The holistic perspective, the use of the comparative method, fieldwork as a primary means of data acquisition, the perspective of cultural relativism, and avoidance of ethnocentrism make anthropology a unique discipline. Anthropologists seek to explain human cultural behavior using the scientific method. At the same time, anthropology includes a humanistic perspective.

Study Questions

1. What do anthropologists study? What are the four subfields of anthropology, and what do anthropologists working within each subfield study?
2. How is anthropology unique as a discipline?
3. Contrast the perspectives of ethnocentrism and cultural relativism.
4. Anthropologists use the scientific method to investigate and explain human cultural behavior. Why is it sometimes difficult to apply the scientific method in studies of other cultures?

Suggested Readings

- Birx, James, ed. 2005. *Encyclopedia of Anthropology*. Thousand Oaks, Calif.: Sage. This multivolume reference is user-friendly and covers topics in all of the subfields of anthropology.
- Endicott, K. M., and R. Welsch. 2005. *Taking Sides: Clashing Views on Controversial Issues in Anthropology*, 3rd ed. Guilford, Conn.: McGraw-Hill/Dushkin. Opposing viewpoints regarding various issues in anthropology, including ethical dilemmas.
- Feder, Kenneth L. 2008. *Frauds, Myths, and Mysteries: Science and Pseudoscience in Archaeology*, 6th ed. New York: McGraw-Hill. A must-read for anyone interested in archaeology. This book gives insight on how to approach and evaluate claims about prehistory that appear in the popular media.
- Park, Michael Alan. 2008. *Biological Anthropology*, 5th ed. New York: McGraw-Hill. An excellent introduction to the field of biological anthropology.
- Podolefsky, A., and P. J. Brown, eds. 2007. *Applying Cultural Anthropology: An Introductory Reader*, 7th ed. New York: McGraw-Hill. Essays on the usefulness and relevance of anthropology addressing human social problems.
- Rathje, William, and Cullen Murphy. 2001. *Rubbish! The Archaeology of Garbage*. Tucson: University of Arizona Press. An entertaining and provocative book about Rathje's Garbage Project. Demonstrates the application of archaeological methods to contemporary issues.

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