

SIXTH EDITION

A History of Psychology

***Main Currents
in Psychological Thought***

Thomas Hardy Leahey
Virginia Commonwealth University



Upper Saddle River,
New Jersey 07458

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Origins of Politics, Philosophy, Science, and Psychology



The Parthenon is one of the most famous buildings in the world. Erected under the rule of Pericles in the days of Socrates and Plato, it expresses the confidence of an imperial civilization at the height of its powers. It was in Greece that the history of secular thought in Western civilization began. Psychology began there in the Greek motto "know thyself."

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THE PAST IS ANOTHER COUNTRY

A few years ago, I visited the British Museum in London. As an undergraduate, I had narrowly chosen psychology over archeology as a career, and I was eager to visit the treasures of the past to be found in the Museum. Among the greatest are the Elgin Marbles, named after Lord Elgin, a British Hellenophile who brought them back to England for preservation. The Elgin Marbles are large, flat slabs of carved stone that were part of the decorative frieze around the top of the Parthenon on the Acropolis in Athens. In the Museum, they are rightly given a large room of their own, mounted high around the walls to give the viewer some sense of the original experience of seeing them. They are marvelous works of art, but I was disappointed by how the Marbles were described by the Museum's labels. They discussed the purely formal, aesthetic properties of the Marbles, pointing out, for example, how the figures on one echoed the forms on another across the room. They did not tell what the figures and forms meant, what the people, gods, and animals were doing. At first, I thought this formal approach simply reflected the fact that archeology developed in Europe as a branch of art history and therefore stressed aesthetic appreciation, whereas archeology developed in America as a branch of anthropology and stressed cultural interpretation. The treatment of other artifacts seemed to confirm my hypothesis.

Subsequently, however, I learned that the story was less simple: No one really knows what the Elgin Marbles mean. Traditionally, they are thought to show the Panathenaic Procession. Once a year, the leaders and citizens of Athens staged a grand parade to the Parthenon to honor their city's special god, Athena. However, detailed interpretation remains lacking (Biers, 1987), and some scholars think the marbles commemorate a legendary sacrifice by a mother of her two daughters to gain an Athenian military victory. Had she borne sons, they would have died in battle, so she gave her daughters (Adler, 1995). That the Marbles are something of a mystery is especially surprising because the Parthenon is not especially old. The Parthenon whose ruins we see today was erected in the heyday of the "glory that was Greece" era, during the leadership of Pericles (495-429 B.C.E.) and under the guidance of the great sculptor Phidias (500-432 B.C.E.), as a replacement for structures destroyed by Persian invaders. The Greeks were inventing philosophy, science, and history, yet we have no discussions of the meaning of the Parthenon frieze. People rarely write down what they take for granted.

My experience with the Elgin Marbles is an important lesson as we begin our historical journey. The job of any historian is to tell about the past, to bring alive the thoughts and actions of people who lived in earlier times, to see the world as they saw it. Yet, as the title of one book has it, *The Past Is Another Country* (Foster, 1988). Often, our grip on the past will be loose, for much quotidian detail is gone forever. We will try to think like Greeks or nineteenth-century German mandarins, and thus improve ourselves as we do by travel. The quest for historical understanding is worth the effort, but the goal of complete understanding will never be reached. No one really knows what the Elgin Marbles mean.

The psychology of any era, scientific or folk, is inevitably affected by the society and culture that produced it. When people seek to explain human soul, mind, and behavior, their ideas rest upon unexamined assumptions about human nature and about how humans ought to live. For example, we will learn in this chapter that Classical Greeks thought the greatest goal in life was to seek eternal honor in the service of their city-state, despising anyone who pursued private self-interest. Because psychological theories reflect their time and place, I will in this book set psychological concepts in their social contexts, rather than treating them as isolated Great Ideas. Beginning this journey with the Greeks is

appropriate because it was in Classical Athens that Socrates began to examine his culture's previously unexamined assumptions—and was tried and convicted for doing so.

The history of the intellectual life of the West begins in ancient Greece. Greek ideas were adopted by the Romans, who transmitted them around the Mediterranean and into Gaul (modern France), Germania, and Britain. The history of ancient Greece begins in the Bronze Age, a royal culture that collapsed suddenly around 1200 B.C.E., leaving a Dark Age hole in history. Written history begins again in the Archaic Age, during which the definitive Greek political and cultural order, the *polis*, was created. Then came the great cultural efflorescence of the Classical Age, brought to its knees by external and internal warfare and destroyed by Macedonian conquest. The Classical era was followed by the Hellenistic Age, which blended into the Roman Era when, as has been said, the Romans were conquered culturally by vanquished Greece.

ANCIENT GREECE: THE BRONZE (3000–1200) AND DARK AGES (1200–700 B.C.E.)

The Social Context: Warriors and Kings

Ancient Greek men—who totally dominated Greek society—were warriors and they ceased to be warriors only when they were conquered by Philip of Macedon and then the Romans. Their warrior ethos is the key to understanding Greek concepts of mind and behavior. Greek men prized physical strength and despised weakness and, hence, women; they prized fame and glory, not private life or the pursuit of private interest; they cultivated close, even homoerotic friendships among the members of warrior band. In the Bronze and Dark Ages, semi-divine kings and their supporting aristocrats ruled Greek society, and it was in this context of royal rule that the Greeks formulated their masculine warrior ethic. It was transmuted with the rise of the polis, but endured for centuries.

The Greek warrior ethos cast a long shadow over Greek philosophical psychology and ethics. The Bronze Age heroic conception of virtue—the good life—meant living honorably by the warriors' code and achieving immortality through prowess in battle. When a god offered young Achilles the choice between a long, quiet, private life or a short but glorious life, he chose what any Bronze Age man would—the short life of glory won in battle (which did, indeed, make his name immortal).

The Homeric concept of virtue is radically unlike ours in two important respects. First, virtue—*arête*—was an achievement, not a state of being; and second, as a consequence, virtue could be achieved by only a lucky few. Women, children, adolescents, slaves, the poor, and cripples (few of whom were buried) could not achieve virtue because they could not gain glory in battle. Greeks ever walked in fear of fate—*Tyche*—that might keep virtue from them. An accident of birth—being a woman, poor, or a slave—put virtue out of reach. A childhood accident or disease might cripple one, keeping one from achieving glory and, thereby, *arête*. Although the emphasis on glory won in battle was muted in later Classical philosophy, the idea that only those few men who attained public greatness were virtuous remained intact until the Hellenistic Age. Today, we tend to think that virtue may belong to anyone, rich or poor, man or woman, athletic or crippled, because we think of virtue as a psychological state of mind, or of the soul, not as a prize to be won by action. Our conception of virtue was developed by the philosophy of Stoicism in the last centuries B.C.E., and was incorporated into and spread by Christianity.

Psychology of the Bronze Age

Our oldest window on psychology is opened by the Homeric poems the *Iliad* and *Odyssey*, which gave permanent voice to an oral tradition already millennia old, reaching back to the Bronze Age. Because they are tales of love and loyalty, passion and battle, they contain explanations of human behavior, indirectly revealing the oldest folk psychology of which we have record.

One object of ancient wonder was surely the difference between living and nonliving things. Only plants, animals, and humans are born, develop, reproduce, and die; only animals and humans perceive and move about. Religions all over the world mark this distinction by ascribing to living things a soul that animates their inanimate bodies, producing life. When the life-spirit is present, the body is alive, and when it departs, the body becomes a corpse. Some, but not all, religions add a second, personal soul that is the psychological essence of each person and that may survive the death of the body.

At least as recorded by Homer, Bronze Age Greek concepts of the soul are distinctive and, to a modern eye, rather odd (Bremmer, 1983; Onians, 1951; Snell, 1953). To begin with, the *Iliad* and *Odyssey* contain no word designating the mind or personality as a whole. Closest is the word *psuche* (traditionally, but misleadingly, transliterated as *psyche*, and usually translated as soul) from which the field of psychology—the study of (*logos*) the soul (*psuche*)—takes its name. *Psuche* is the breath of life because its departure from a wounded warrior means his death. However, *psuche* is also more than the breath of life but less than the complete individual mind or soul. During sleep or a swoon, it may leave the body and travel around, and it may survive bodily death, but it is never described as being active when a person is awake, and it is never implicated in causing behavior.

Instead, behavior is attributed to several independently operating, soul-like entities residing in different parts of the body. For example, the function of *phrenes*, located in the diaphragm, was rationally planning action. On the other hand, *thumos*, in the heart, governed action driven by emotion. *Noos* was responsible for accurate perception and clear cognition of the world, and there were other, less frequently cited mini-souls as well. None of these mini-souls survived the death of the body, giving the afterlife of the Homeric *psuche* a rather bizarre character. Deprived of their body-souls, *psuches* in the afterlife were mental cripples, deprived of feeling, thought, and speech, and incapable even of normal movement. The appearance of the *psuche* was exactly that of the body at death, complete with wounds. Moreover, not every *psuche* went to Hades, because proper burial of the body was felt necessary to effect the transition from life to afterlife. Women, children, adolescents, and the elderly were not ritually buried, so their *psuches* were not believed to survive death, and warriors feared death without burial—for example, by drowning at sea. On the other hand, when buried with honor, a great warrior found an exalted place in the afterlife.

ANCIENT GREECE: THE ARCHAIC PERIOD (700–500 B.C.E.)

The end of the Dark Ages is marked by a new form of social and political organization, the city-state, or *polis*. Citizens' allegiance shifted from divine kings to city-states, comprised of a small city and a few surrounding square miles of territory and governed by their citizens rather than by a king. The *polis* marked the beginning of rule by the people, although none of the *poleis* were democracies in our modern sense of the world. Citizenship

was highly restricted: Only men born of citizens were citizens; women and slaves were excluded from citizenship. In each city-state, especially wealthy Athens, there were many noncitizens, called *metics*, who could never become citizens. One of Athen's most famous philosophers, Aristotle, was a metic. Moreover, the old warrior values of *arête* continued in the *polis*, though in altered form. The *poleis* lived by the rule of law—and thus were not monarchies or tyrannies—but they were never liberal democracies (Rahe, 1994).

The Social Context: The Rise of the *Polis*

The Phalanx and the *Polis*

The Greeks were warriors, and it was a change in how Greeks fought that created the *polis*, maintaining while altering the warrior ethos of *arête* (Green, 1973, Pomeroy et al., 1999; Rahe, 1994). Bronze Age warriors fought as individuals. The great warrior-aristocrats were driven in chariots to the field of battle where they dismounted and engaged in single combat with their personal enemies. This form of warfare is described beautifully in the last chapters of the *Iliad*, when Achilles fights and defeats a series of Trojan heroes. Because chariots were so expensive to own and maintain, they remained an aristocratic status symbol for centuries (Pomeroy et al., 1999). Bronze Age warriors also wore magnificent armor that, like the armor of the middle ages, signaled their aristocratic or royal status. However, during the Archaic Age, the Greeks developed a radically new form of warfare, the phalanx, composed of lightly armored soldiers called *hoplites* wielding long pikes. The phalanx democratized warfare. The hoplite did not need to afford horses and a chariot, nor the expensive armor of the aristocrats. All citizens, rich or poor, fought on foot as a closely coordinated, single unit. Aristocrats lost their monopoly on military prowess, and with it their monopoly on political power. Because they fought for the *polis* on equal footing with aristocrats, ordinary citizens staked a claim to political power, and they became the decisive class in making political decisions.

The phalanx mentality had important effects on the values and psychology of Archaic and Classical Greece. The phalanx fought almost as a single man; the key to its success was complete coordination of the motions of the hoplites. Emphasis on unit cohesion has remained central to military effectiveness down to modern times. In the movie *Sands of Iwo Jima* (1949) (endorsed by the Marine Corps), the tough Sergeant John Stryker (John Wayne) tells his new recruits, "Before I'm through with you, you're going to move like one man and think like one man. If you don't, you'll be dead." This was the ethos of the phalanx.

The ethos of the phalanx created a ferocious emphasis on economic equality in the *poleis*. Their goal was *hominoia*, a state in which every citizen thought the same thoughts and served only the interests of the *polis*, never their self-interest. Accumulation of wealth was discouraged, and displays of wealth brought opprobrium. Being called a "fish-eater" was an insult because fish were rarities in the eastern Mediterranean, and so a person who ate fish was showing off his wealth (Davidson, 1998). There were sumptuary laws regulating what clothes one could wear, ensuring sameness of appearance. When a city-state founded a colony (the Greek world expanded from the original city-states of Greece to include Sicily, southern Italy, and the Mediterranean coast of modern Turkey), equal-sized lots of land were geometrically laid out and allotted to the colony's citizens. Laws were passed making it difficult for anyone to accumulate large landholdings. Above all, the Greeks valued the virtue they called *sophrosyne*. This word is very difficult to translate.

Its simplest meaning is self-control, but it's a self-control that springs from wisdom and honors the Greek maxims "know thyself" and "nothing in excess." It is not the self-control of a Christian or Buddhist ascetic who rejects the world, the flesh, and the devil, but the self-control of a person who accepts and enjoys the pleasures of the world, but is not captured by them.

Now one might think that in such an egalitarian political order, the old values of *arête* would die. They did not, but they were placed in service of the *polis* rather than individual glory. The *polis* made it possible for any citizen, not just the wealthy aristocrats, to achieve *arête*. Aristotle wrote, "the city exists for the sake of noble action" (quoted by Rahe, 1994, p. 184). As the phalanx demanded the active participation of all hoplites, the *polis* demanded the active participation of all citizens. Speaking of those who do not participate in politics, but preferred to live a quiet life at home—Greeks called them *idiots*—the greatest Athenian leader, Pericles, said "we judge him utterly worthless." The pursuit of fame and glory survived. Pericles also said, "The love of honor is the only thing that never grows old. . . . Turning a profit [is inferior to] . . . enjoying the respect of one's fellows" (quoted by Rahe, 1994, p. 185). The ancients never cared for the creation of wealth or economic productivity. What counted above all else was greatness of action and the fame it brought.

The *Polis* at the Extreme: Sparta

The ethos of the *polis* was carried to its extreme by the Spartans (Rahe, 1994). Each young Spartan male was allotted a farm worked by the Spartan slaves called helots; thus Spartan males could devote themselves entirely to the service of the *polis* in war. They were trained to be tough, masculine, and warlike from a young age. Each warrior was annually issued a standard garment he wore at all times and in all weather, and Spartan warriors called themselves collectively *hoi hominoi*, "The Equals." When they became youths, Spartan men moved into barracks, where they lived as a band of warriors, and they perfected their warrior skills by nighttime attacks on any poor helot unfortunate enough to cross their path; indeed, one reason the Spartans had to be warlike was that the helots outnumbered the Spartans by at least 10 to 1, so that a slave revolt was a constant possibility. Even when coinage of silver and gold was introduced to the Greek world about 600 B.C.E., the Spartans forbid anyone to own coins, and used little iron bars as their only means of exchange. Greek disdain for wealth and passions for equality and service to the State was at the heart of the Spartan way of life, and we see that democracy and equality are not the same thing.

An important aspect of Spartan life that also illuminates Greek values more generally was the tension between the demands of the *polis* and the attractions of home, the *oikos*. People are naturally drawn to their spouses and children, but Spartans, like other Greeks, attempted to constrain or even eliminate the *oikos*. For example, every Greek infant was inspected at birth and exposed to death if physically deformed. Elsewhere, it was the male head of the family who judged the infant, but at Sparta it was a government official. Although a man might marry in his twenties, he continued to live with his messmates until age 30 mating with his wife secretly and briefly in the night. Success in warfare was the highest value for Spartans. There is a story of a soldier returning home to tell his mother that all of his fellows had been killed in battle. Rather than rejoicing that her son was alive, she threw a rock at his head and killed him for failing to die in battle.

Although the Spartan way of life was harsh—it was designed to be, so as to produce invincible soldiers—it was much admired by subsequent thinkers as an apparently

successful exercise in social engineering (Pomeroy et al., 1999). Plato modeled the Guardian class of his utopia on The Equals (see the following discussion), and in the Enlightenment, Jean Jacques Rousseau (see chapter 5) wrote that Sparta “was a Republic of demigods rather than of men” (quoted by Pomeroy et al., 1999, p. 235.) Sparta’s exercise in social engineering was not a total success. Although Rousseau admired the Spartans, he recognized that their way of life did violence to human nature (Rahe, 1994), and they earned a reputation as hypocrites among later historians. In public they were austere, but in private they accumulated hoards of forbidden silver and gold. Self-interest and the appeal of home, spouse, and children are not easily extinguished.

Politics, Argument, Law, and Nature: Philosophy and Psychology Begin

Greek Democracy and the Critical Tradition

It is difficult for people to accept criticism of their ideas or to reflect critically on them. Consequently, many systems of thought are *closed*. Adherents of a closed system of thought believe that they possess truths beyond criticism and improvement. If some criticism is offered, the system is not defended with reason or evidence, but by attacking the character of the critic as somehow defective. Religions often become closed systems because they rest on divinely revealed dogma and persecute critics as heretics and revile outsiders as wicked infidels. Secular systems of thought may become closed, too. In psychology, psychoanalysis sometimes showed tendencies to intolerance, attacking criticisms as neuroses rather than as potentially legitimate objections.

In Archaic Greece, however, when ordinary citizens earned a say in the conduct of their *poleis*, intellectual life took a different turn, unique in human history and often called the *Greek miracle*. The ancient Greek philosophers were the first thinkers to seek progress through criticism. Beginning with Thales of Miletus (flourished 585 B.C.E.), a tradition of systematic criticism arose whose aim was the improvement of ideas about the natural



This is the platform from which speakers addressed the Athenian assembly. Because Greek democracy rejected royal or theocratic dogma and reveled in the clash of competing ideas, it created a social space in which philosophy and science could be born and flourish.

world. As the philosopher Karl Popper (1965, p. 151) wrote, “Thales was the first teacher who said to his pupils: ‘This is how I see things—how I believe that things are. Try to improve upon my teaching.’” Thales did not teach his ideas as a received Truth to be conserved, but as a set of hypotheses to be improved. Thales and his followers knew that only by making errors and then correcting them may we progress. This critical approach to philosophy is what Popper called an *open* system of thought. In addition, the Greek democracies achieved the fundamental basis of all free discussion, separating the character of persons from the value of their ideas. In an open system of thought, ideas are considered on their own, apart from the personality, character, ethnic background, or faith of the person who advances them. Without this separation, arguments degenerate into name-calling and heresy hunting. The critical attitude is fundamental to both philosophy and science, but it requires overcoming intellectual laziness and the natural feeling of hostility toward critics. Founding a critical tradition of thought was the major achievement of the Greek inventors of philosophy.

The critical tradition of philosophy and science was an outgrowth of the democratic *polis* (Vernant, 1982). Instead of simply obeying the orders of a king, democratic Greeks came together to argue over the best course of action, opening the debate to all citizens. Because citizens were equal, charges of bad faith or bad character became unseemly, and ideas were debated on their own merits (Clark, 1992). Law was no longer given by a king who could change it or disregard it at will, but was agreed on and written down, becoming binding on everyone equally. As Euripides wrote in *The Suppliants*, “. . . when the laws are written down, the weak/Enjoy the same protection as the rich.” The idea of law governing all people eventually was mirrored in an important scientific idea: natural laws governing natural events, laws that could be discovered by human minds. This extension of law from the *polis* to nature first appeared in Greek myths, wherein the chief god Zeus is subjected to constraints even he cannot escape (Clark, 1992). Philosophy and science flourish only in a free society based on law.

The First Natural Philosophers

Understanding the Universe: The Physicists. The earliest Greek philosophers addressed the fundamental nature of reality. Thales proposed that although the world appears to be made up of many different substances (wood, stone, air, smoke, and so forth), there is in reality only one element—water—which takes on many forms. Water can be liquid, gaseous, or solid, and was, Thales proposed, the underlying constituent of all things. The Greek word for the single element out of which all things are made was *phusis*, and so those who followed Thales in searching for some such universal element were called *physicists*. Modern physicists continue their search, asserting that all the substances of common experience are really composed of a few elementary particles.

Besides inaugurating a critical tradition, then, Thales began a line of *physical* investigation. In doing so, he moved away from theurgic or supernatural interpretations of the universe toward *naturalistic* explanations of how things are constituted and how they work. Thus, Thales asserted that the world may be understood by humans because it is made of ordinary matter and is not affected by the capricious whims of gods. Naturalism is the essential commitment of science because science seeks to explain things and events without reference to supernatural powers or entities of any kind. In psychology—the study of the soul—naturalism poses a profound challenge to dualistic conceptions of life and human personality. As scientists, psychologists seek to explain animal and human behavior without reference to soul or spirit, bringing them into conflict with an ancient and

enduring tradition—subscribed to by many psychologists themselves—of faith in a supernatural soul. In the rest of science, Thales' naturalism reigns; in psychology, it remains at odds with dualism. Coming to terms with this tension is a serious problem for contemporary psychology.

Thales' physicist tradition continued with his student Anaximander of Miletus (fl. 560 B.C.E.), who criticized Thales' hypothesis that the *physis* was water, proposing instead the existence of a *physis* (the *apeiron*) that was not any recognizable element but was instead something less definite that could take on many forms. Anaximander also anticipated the concept of adaptive evolution later elaborated by Darwin. He observed that human babies are fragile and require prolonged nursing, inferring that human beings' original, primeval form must have been different, sturdier, and presumably more quickly independent, as are most animal infants. To support his thesis, Anaximander appealed to fossils of creatures unknown in his world.

Although he was a poet rather than a philosopher, Xenophanes of Colophon (fl. 530 B.C.E.) broadened the critical and naturalistic traditions by criticizing Greek religion. Xenophanes maintained that the Olympian gods were anthropomorphic constructions, behaving like human beings: lying, stealing, murdering, and philandering. Xenophanes said that if animals had gods, they would make them in their own images, inventing lion gods, cat gods, dog gods, and so on. Xenophanes' critique was the opening salvo in the war between science and religion.

More directly influential on later philosophers, especially Plato, was Pythagoras of Samos (fl. 530 B.C.E.). Pythagoras was an enigmatic figure, a great mathematician, a philosopher—indeed, he coined the term, meaning “lover of wisdom,” (Artz, 1980)—and, yet, the founder of a cult. He is famous for the Pythagorean Theorem, and he also formulated the first mathematical law of physics, expressing the harmonic ratios of vibrating strings of different lengths. In his geometrical reasoning, Pythagoras contributed an idea unique to Western civilization and crucial to science—the notion of *proof*. Pythagoras showed that one could argue logically step-by-step to a conclusion that must be accepted by all who followed the argument. Proof does not rest on divine revelation or the acceptance of ancient authorities, but on the correct use of reason.

Mathematics, however, was more than just a tool of science for Pythagoras. He founded a cult whose devotees believed that mathematics held the keys to nature. In psychology, Pythagoreans drew a sharp distinction between soul and body. Not only could the soul exist without the body, but, going further, the Pythagoreans considered the body a corrupting prison in which the soul was trapped. An important part of the Pythagorean cult teaching concerned purifying the flesh—for example, by dietary restrictions—so the soul could more easily attain truth. Unlike other Greeks, for whom sex was a natural part of life, Pythagoreans viewed sexual pleasure as sin: “Pleasure is in all circumstances bad; for we come here to be punished, and we ought to be punished” (quoted by Garrison, 2000, p. 253). As we shall see, in his emphasis on the care of the soul and the purifying and transcendental character of mathematics, Plato was a follower of Pythagoras.

Being and Becoming; Appearance and Reality: Parmenides and Heraclitus.

An important intellectual polarity in Western thought has been the tension between philosophies of *Being* and of *Becoming*. The first spokesman for Being was Parmenides of Elea (fl. 475 B.C.E.). Parmenides wrote his philosophy as a poem and declared it the inspiration of a goddess, suggesting, as with Pythagoras, that the line between science and religion, philosopher and shaman, was not yet clear and sharp (Clark, 1992). Parmenides'

basic thesis was simply stated, “It is.” Presumably influenced by the physicists, Parmenides asserted that the underlying permanent reality of the universe was an unchanging substance, a simple and immutable *It*: pure Being. Change—*Becoming*, to the Greeks—was an illusion of the human mind, because *It* simply is, beyond change or alteration. Expanded by Plato, the philosophy of Being became a moral doctrine asserting that beyond the flux of changing human opinions there are eternal Truths and Values that exist apart from humanity, truths we should seek and use to guide our lives. These Truths exist in a realm of pure Being; they exist changelessly apart from the changing physical world.

Advocates of Becoming, on the other hand, deny that any such Truths, or realm of pure Being, exist. Instead, the only constant in the universe is change; things never simply *are*, but are always becoming something else. For such thinkers, moral values change as society changes. There are useful truths, but no eternal Truth. The Greek spokesman for Becoming was Heraclitus of Ephesus (fl. 500 B.C.E.). Like Parmenides, Heraclitus was still as much seer as philosopher, speaking in metaphorical aphorisms that earned him the nickname “the Obscure.” He asserted that the *physis* was fire. This idea led to the conclusion that there is even less permanence in the world than there seems to be. What looks like a stone is really a condensed ball of everchanging fire, a reality not unlike the modern physicist's swarm of particles. Heraclitus' most famous aphorism was that no one ever steps in the same river twice. The statement aptly sums up his philosophy, in which nothing in the universe is ever the same twice. Nevertheless, Heraclitus also believed that, although change is the only constant, it is lawful rather than capricious. Regulating change is a dynamic universal harmony that keeps things in an equilibrium of balanced forces. Thus, whatever truth philosophy and science may attain will be truth about change—Becoming—rather than about static things.

The debate between Being and Becoming was a metaphysical one, but it created an important epistemological difficulty that led to the first theory in psychology. Both Parmenides' philosophy of Being and Heraclitus' philosophy of Becoming imply a sharp difference between *Appearance* and *Reality*. For Parmenides, the Appearance was Change and the Reality was Being; for Heraclitus, it was the other way around. Parmenides made the distinction explicit, sharply distinguishing a *Way of Seeming* (appearances) from a *Way of Truth* (reality). The idea that the human mind might not be able to know reality as it is jolted the Greeks into self-consciousness about how best to search for truth and promoted inquiry into the workings of the human mind, especially what today we call the cognitive functions. With regard to the first issue, how best to discover Truth, Parmenides concluded that, because the senses deceive, they should not be trusted, and one should rely on logic instead. Thus was founded the approach to philosophy known as *rationalism*, which after being polished and combined with Being by Plato, would emerge as a powerful general theory of the universe. Concern with the second issue, how the mind is connected to the world, resulted in the first psychological theories about sensation and perception. These psychologically minded philosophers tended to defend the accuracy of human perception against the charges of rationalism, developing the opposing viewpoint of *empiricism*, which maintains that the way to truth is through the senses, not logic.

The First Protopsychologists: Alcmaeon and Empedocles

When psychology was founded as a science in the nineteenth century, it took a path through physiology. The new psychology was conceived as the scientific offspring of a fruitful marriage between philosophy of mind and the science of physiology. This

marriage—or alliance, as Wilhelm Wundt called it—was reflected in the careers of psychology's main founders, Wundt, William James, and Sigmund Freud, all of whom received MD degrees before becoming psychologists. However, long before psychology established itself as a science on the path through physiology, there were physician-philosophers—*protopsychologists*—who approached explaining mind and behavior using the methods and findings of physiology.

The first appears to have been Alcmaeon of Croton (fl. 500 B.C.E.). Alcmaeon was a physician who practiced some of the earliest dissections. He was also interested in philosophy and directed his attention to understanding perception. He dissected the eye and traced the optic nerve to the brain. Unlike later thinkers, such as Empedocles and Aristotle, Alcmaeon correctly believed that sensation and thought occur in the brain. Alcmaeon also proposed a view of perception that was developed into the first theory in psychology by another physician-philosopher who opposed Parmenides' rejection of the validity of experience.

The ideas of this protopsychologist, Empedocles of Acragas (fl. 450 B.C.E.), may be regarded as the forerunner of empiricism, the orientation to philosophy that finds truth in appearances and rejects reason as tending to fantasy. Following Alcmaeon, Empedocles believed that the senses are “duct[s] of understanding” through which information about the world travels to the brain (Vlastos, 1991, p. 68), and upon that basis developed a theory of perception that would justify our commonsense reliance on our senses. Empedocles proposed that objects emit “effluences,” sense-modality-specific copies of themselves that enter the body through the ducts of the senses. Unlike Alcmaeon, Empedocles returned to the usual Greek location of the mind in the heart or chest, saying that the effluences get in the bloodstream where they meet and mix in the heart. The agitation of the effluences in the beating of the heart, Empedocles argued, was thinking. His theory, although it sounds absurd today, was an important step for naturalism in psychology because it proposed a purely physical basis for mental activity, which was usually attributed to a soul.

A key feature of the various protopsychologists we will meet is that they worked in the intersection between philosophy and psychology. That is, they took up philosophical questions such as, “Do we know the world truly?” or “What is the best way for people to live?” and addressed them from a psychological perspective. Instead of speculating about human knowledge, they inquired into how sensation, perception, and thought actually work, using their findings to reflect back on philosophical issues about the possibilities and means of justifying knowledge. Instead of debating ethical positions, they inquired into human nature, trying to discover what motives people have and how they might be managed to attain the good life. Scientific psychologists have kept up this tradition, using scientific inquiries into human nature to address issues in epistemology and the relations between human beings and human society.

The Last Physicists: Atomism

The last classical philosophers to be concerned primarily with the nature of physical reality were Leucippus of Miletus (fl. 430 B.C.E.) and his better-known student, Democritus of Abdera (fl. 420 B.C.E.). After them, philosophers turned to questions about human knowledge, morality, and happiness. The *atomists* proposed an idea that has proven immensely fruitful in physics: that all objects are composed of infinitesimally small atoms. The atomists pushed their hypothesis to its limit, supporting two ideas that have seemed

dangerous to some philosophers and ordinary people: *materialism* and *determinism*. A recurring motto of Democritus was that only “atoms and [the] Void exist in reality.” There is no God and no soul, only material atoms in empty space. If only atoms exist, then free will must be an illusion. Leucippus said, “Nothing happens at random; everything happens out of reason and by necessity,” providing a naturalistic explanation of *Tyche*. The soul and free will are illusions that can be reduced to the mechanical functioning of our physical bodies. Democritus became known as the “Laughing Philosopher” because he laughed at the follies of human beings who believed in freedom and struggled against the necessities of Fate.

Atomism deepened the divide between Appearance and Reality. Democritus wrote, “We know nothing accurately in reality, but only as it changes according to the bodily condition and the constitution of those things that impinge upon [the body]” (Freeman, 1971, p. 93), concluding that only reason can penetrate to the reality of the atoms (Irwin, 1989). Democritus adopted a version of Empedocles' theory of cognition. Democritus said that every object gives off special kinds of atoms called *eidola*, which are copies of the object. When these reach our senses, we perceive the object indirectly through its copy. Thus, our thought processes are restricted to putting together or taking apart the *eidola*-images in our brains. Democritus also maintained an ethical doctrine that came to trouble later ethical philosophers and psychologists. A consistent materialism, denying as it does God and the soul, typically offers a sensuous guide to the conduct of life: the pursuit of pleasure and the avoidance of pain. This doctrine is called *hedonism*. We find Democritus saying, “The best thing for man is to pass his life so as to have as much joy and as little trouble as may be” (Copleston, 1964, p. 93). This is the logical outcome of naturalism, for it reduces values to our natural bodily experiences of pleasure and pain. To many, however, it is morally offensive, for if an individual's pleasure is the sole criterion of the good, what right has anyone to condemn the happy and successful criminal or tyrant? Such moral concerns were at the heart of Socrates' and Plato's thinking, and Plato once suggested burning Democritus' books.

ANCIENT GREECE: THE CLASSICAL PERIOD (500–323 B.C.E.)

The Social Context: Empire and War

As the Greek city-states established themselves and colonized the Mediterranean, they came into conflict with the Persian Empire. In a series of campaigns, the Persians tried to capture Greece, but due to battles fought with great heroism and cleverness by the Greeks, the Persians failed. Had the Greeks lost any of the close-run battles against the Persians, the history of the world would have been changed radically. The Persian wars also revealed the great political weakness of the *polis* system—the Greeks never fully united against the Persians, but set up short-term alliances that encouraged jockeying for supremacy. The main rivals were Sparta, the most potent, land-based military power, and Athens, the largest and wealthiest of the *poleis*.

Athens' citizens numbered as many 40,000, far more than other *poleis*, and its rich silver mines gave it enormous wealth. Because Athens had a port, the Piraeus, it became a great trading center, and it developed as a sea power against Sparta's formidable land power. As the Persian wars continued, Athens became the most important Greek city, developing an empire controlling most of the Greek peninsula and reaching into

Persian territories as the Persians retreated. Unsurprisingly, the Athenians fell victim to the Greek sin of *hubris*—excessive pride. They styled themselves the teachers of the Greeks, and other cities came to feel threatened by Athenian hegemony. Some poleis allied with Athens's power, while others rallied around Athens's rival, Sparta, setting in motion a series of horrifically destructive civil wars known collectively as the Peloponnesian War. In the end, Sparta defeated Athens with the help of the Persians, but the devastation and loss of life and wealth were so great that no one could justly be called the victor. Greece was fatally weakened, set up for conquest by Philip of Macedon and his son, Alexander.

At its height, Athens was the cultural center of the Greek world, producing art, architecture, and philosophy whose influence lasted for millennia. It also became, for a while, a radical democracy, completely erasing status differences between the few aristocrats and the many common citizens. As the fortunes of war with Sparta ebbed and flowed, the aristocrats tried several times to seize power, only to be defeated by the partisans of democracy. The internal squabbling of Athenian citizens aided their enemies as disaffected aristocrats periodically defected to the Spartan or Persian cause. The tumults within Greece and within Athens are important to understanding the philosophy of Plato, who sought to find a world of unchanging Truth behind the appearance of chaos.

Teaching the *Polis*

Humanism: The Sophists

The key to success in the Athenian polis was rhetoric: the art of persuasion. Political power depended on effective speech in the assembly, and being a litigious people, Athenian citizens had to argue lawsuits and sit in judgment on juries. Therefore, the ability to make and critically comprehend complex arguments was a skill of great value. Naturally, then, rhetoric became an object of study, a profession, and an expertise to be taught. The Athenian teachers of rhetoric were called *Sophists*, from *sophistes* (meaning expert), the source of the word "sophisticated." The art of rhetoric arrived in Athens from Syracuse in 427 B.C.E. The sophist Gorgias came from Sicily to obtain Athenian aid for his city of Leontini against its enemy Syracuse (Davidson, 1998). Although Gorgias does not come off well in Plato's eponymous dialogue, the art of persuasion had come to stay. The Sophists were the first paid professionals in history, and they represent the beginnings of higher, as opposed to childhood, education (Clark, 1992). The practical concerns of the Sophists mark an important turn in philosophy from concern with the cosmos to concern with human life and how it ought to be lived.

As hired advocates and teachers of rhetoric, the Sophists did not profess a general system of philosophy, but certain important philosophical attitudes emerged from their practice. If the Sophists had a central idea, it was stated by Protagoras (approximately 490–420 B.C.E.): "Of all things the measure is man, of things that are that they are, and of things that are not that they are not" (Sprague, 1972). Protagoras' motto suggests a range of meanings from the personal through the cultural to the metaphysical. At the center of all of them, however, is *humanism*, a concern with human nature and human living instead of the protoscientific concerns of the naturalists.

On its narrowest personal interpretation, "man is the measure of all things" endorses a *relativistic empiricism*, a humanistic preference for Appearance over Reality. Whatever may be the ultimate constituent of nature—water, fire, or atoms—the world we humans live in is the world as it appears to us in our immediate experience. Truth for

us, as a practical matter, will never be the *phusis*, but will be the familiar world of people and things; usable truth therefore lies in Appearances, not in a speculative Reality. Yet, because truth is in appearances, truth is relative to each perceiver: Each human being is the only qualified judge of how things appear to him or her. Two people may enter the same room, yet to one the room is warm, to the other cool, if the former has been out in a blizzard and the latter downstairs stoking the furnace. Neither perception is incorrect; each is true for its perceiver, and there is no hidden Reality of the matter.

"Man is the measure of all things" also carries a cultural, or, to use a term of today, a multicultural meaning. The Greeks were cultural chauvinists; their word "barbarian," with all of its negative connotations, simply meant non-Greek-speaking. For them, there is only one right way of life—the Greek way—and all others were ways of folly or wickedness. The Sophists challenged Greek thinking on this point, championing a form of cultural relativism. Just as each person knows what is true for himself, so cultures may arrange their affairs in any number of equally valid and satisfying ways. Hellenes speak Greek and Romans speak Latin; neither is superior to the other. Greeks worship Zeus, the Anglo-Saxons, Wodan; each is the god of his people.

Finally, "man is the measure of all things" has a metaphysical meaning. If the alleged Reality of nature is unknowable, so, too, are the gods (Luce, 1992). There is no divine truth or god-given law to which human beings are subject. Right and wrong are matters for cultures, not gods, to decide. Science and philosophy ought not waste time on idle speculation about Reality or the gods, but concern itself with practical achievements conducive to human happiness and work.

The Sophists' relativism was an important innovation in the history of Western thought, but carried dangers for Greek democracy and for Western social and political thought down to the present. The Sophists sharpened the division between *phusis* (nature) and *nomos* (human law). By considering their way of life the best life, traditional Greeks identified *phusis* and *nomos*: the Greek way of life, their *nomos*, was the best,—that is, the natural (*phusis*) way of life, ideally suited to human nature (*phusis*). The Sophists denied this identification, making *nomos* a mere matter of arbitrary convention, a set of equal ways of life lived in different cultures, none superior to another. Indeed, the Sophist Antiphon elevated convention (*nomos*) above nature, saying that human laws bind human nature (*phusis*), presumably in different ways in different cultures. Psychological inquiry is important to the dispute between traditional Athenians and the Sophists. The Sophists assumed that human nature is quite flexible, being happily adaptable to very different ways of life. Traditional Athenians saw human nature as relatively fixed, so that one culture—the free *polis*—was most suited to it. Submerged for a time by the dominance of Christian thought, the nature of human nature—and its implications for social policies—became a prime problem for the Enlightenment, and remains with us today.

The immediate danger from Sophistic humanism for Athenian democracy emerged in Plato's lifetime. The aristocrat Callicles says in Plato's dialogue *Gorgias* that laws are made by the weak and inferior—but more numerous—citizens to fetter the naturally strong and superior ones who ought naturally to rule over the weak masses. De Sade, Nietzsche, and, in some moods, Freud, later agreed. Callicles put his claim into action, participating in an aristocratic coup against Athenian democracy. Ever since the time of the Sophists, the questions of what human nature is and what, if any, way of life is natural to it, have challenged those parts of psychology and philosophy devoted to human happiness. These challenges were first met head-on by Socrates.

Enlightenment and Eudaemonia: Socrates

Much to his own liking, Socrates was a troublesome and troubling figure in his own lifetime and has remained so in the history of Western thought. For conventional Athenians, Socrates was a troublemaker whose deliberately provocative questions about virtue corrupted their children and undermined their morals. For Christian philosophers, and especially for people still Christian in outlook if not in faith, Socrates became an attractive figure—a poor, wandering seeker after virtue who annoyed the smug and the self-righteous and whose reward was execution. Although a citizen of Athens and an admired soldier, Socrates, like Jesus, came from a modest background, being the son of a stonemason, and challenged the reigning values of the day, whether the aristocrat's love of power and glory or the merchant's love of money. Speaking to the jury that condemned him, Socrates said, "I go about doing nothing but persuading you, young and old, to care not for the body or money in place of it, or so much as, excellence of soul" (*Apology*, 30a, trans. R. E. Allen). For the old aristocratic class of Athens, and later for Friedrich Nietzsche and the German neo-Pagans of the turn of the century—some of whom turned to that decisive leader Hitler—Socrates and Jesus were evil teachers who clouded the minds of the naturally strong with altruistic morality and bound their hands with manacles of law passed by the weak.

Socrates, it seems, was a dangerous man, but what did he teach? In a sense, nothing. Socrates was a moral philosopher, unconcerned with physics and, though Athenians took him for one, not a Sophist. He was on a self-defined quest for the nature of true virtue and goodness, though he professed not to know what they were. In his teaching, he would closely question a young man or group of young men about some topic related to virtue. What is justice? Beauty? Courage? The Good? Socrates' interlocutors would offer conventional definitions that Socrates dismantled with clever and penetrating questions. For example, in the *Gorgias*, Calicles defines justice as "the rule of the strong," reflecting his aristocratic birth and Sophistic training. So devastating is Socrates' assault on Calicles' beliefs, however, that Calicles flees rather than give them up. Those who stayed with Socrates came to share his own mental state of *aporia*, or enlightened ignorance. With Socrates, they had to confess they were ignorant about what justice (or whatever virtue was under discussion) really was, but realized they were better off than before because they had been disabused of their conventional, but wrong, beliefs. Socrates feared that in their acquisition of an empire and the overweening hubris that it had engendered, Athenians had strayed from the path of *sophrosyne*, and his mission was to deflate imperial arrogance and restore traditional Greek self-control.

Although Socrates taught no positive doctrine, his philosophical approach contained several important innovations. The first was his search for the general nature of the virtues and of virtue itself. We intuitively recognize that returning a pencil and establishing a democracy are just acts, but what they have in common—what justice itself as such is—remains elusive. A spectacular sunset and a Mozart symphony are both beautiful, but what they share in common, what beauty itself is, remains likewise elusive. Moreover, Socrates took his inquiries to a higher level. Justice, beauty, honor, and so on are all good, but what they have in common, or what *good* itself is, remains elusive. In his domain of moral philosophy, Socrates began to try to understand the meaning and nature of abstract human concepts such as justice and beauty. Plato and Aristotle would broaden Socrates' quest from ethics to include the whole range of human concepts in every area, creating the

field of *epistemology*—the search for truth itself—a central undertaking of later philosophy and psychology.

Socrates' method, a special sort of dialogue called the *elenchus*, was innovative as well. Socrates believed that everyone possesses moral truth, even if they are unaware of it. Socrates called himself a "midwife" to knowledge of virtue, bringing it out of people by questions rather than simply describing it to them. So, for example, he would use specific cases to undermine false ideas about virtue. A young man might define courage in Bronze Age fashion, as fighting honorably and fearlessly against one's enemies, and Socrates might counter it with something like the Charge of the Light Brigade: brave but foolish, and bringing death and defeat to one's family, followers, and fellow citizens. Such questions and problems weakened and eventually—for those who stayed—dislodged false beliefs and ended in *aporia*. However, precisely because we can make correct intuitive judgments about right and wrong, even if we cannot say why, Socrates assumed knowledge of virtue is latently within us. We can discover this knowledge, and become more fully virtuous, if we seek it with him, making our latent knowledge conscious and explicit. In some respects, the Socratic *elenchus* is the starting point of psychotherapy. With Socrates, psychotherapists maintain that we have learned false beliefs that make us ill, yet we possess a hidden and liberating truth that can be found through dialogue with a personal guide.

Socrates also believed that nothing is worthy of the name knowledge or truth unless we are conscious of it and can explain it. A person might infallibly do the right things, but for Socrates, the person was not truly virtuous unless he could give a rational justification of his actions. In his quest for virtue, Socrates demanded more than good behavior or correct intuitions about right and wrong; he demanded a theory of virtue—the Greek word *theoria*, means contemplation, not action. In the *Symposium*, the semi-divine seeress and alleged teacher of Socrates, Diotima, says to him, "Don't you know that right opinion without ability to render an account is not knowledge—how could an unaccountable thing be knowledge? . . . Right opinion . . . is intermediate between wisdom and ignorance" (202a, trans. R. E. Allen).

Socrates' requirement that knowledge be an explicitly stated and defended theory was adopted by Plato and became a standard goal of Western philosophy, setting it off from two other forms of human thought. The first are dogmatic religions that do not allow natural reason to question divine revelation. Islam after the thirteenth century failed to develop natural philosophy and science on just this ground. In a somewhat similar way, China, too, failed to develop science because of the total control of thought by its divinely appointed emperors and their bureaucrats, the Confucian mandarins (see chapter 4). The other traditions are those that value intuition rather than logic, such as Buddhism or western Romanticism (see chapter 6).

Finally, in his concern with virtue, Socrates raised important questions about human motivation. Central problems for any moral philosophy are providing reasons why people should do right and explaining why they so often do wrong. The first problem—why people should be virtuous—was never a difficulty for Greek and Roman philosophers because they assumed, entirely without discussion, that virtue and *eudaemonia* were deeply linked, if not identical. The usual translation of *eudaemonia* into English is "happiness," but *eudaemonia* meant more than the attainment of pleasure, though it included pleasure. It meant living well, or flourishing. Like all Greeks, Socrates assumed that the proper end of life was *eudaemonia*, and he believed that being virtuous would guarantee *eudaemonia*. Thus, he, and they, assumed that because all people seek happiness, *eudaemonia*, they

naturally seek virtue, and there was no need to provide special reasons for doing good. Plato asserts in the *Symposium* (205a, trans. R. E. Allen), “. . . the happy are happy by possession of good things, and there is no need in addition to ask further for what purpose he who wishes to be happy wishes it. On the contrary, the answer seems final.” In their near-identification of happiness and virtue, the Greeks differed sharply from later ethical systems, including Christianity, which urge us to be ethical but warn that pursuing virtue often brings suffering rather than happiness.

Greek and Roman ethical philosophers had no problem explaining why people seek virtue, so they focused instead on the question of why people ever make bad choices. If virtue and happiness are almost the same, the existence of bad behavior becomes hard to explain. Because people want to be happy, they therefore ought always to act rightly. Socrates proposed a purely intellectual answer to the problem of evil, maintaining that people act badly only when they are ignorant of the good. A thirsty person would not knowingly drink poison, but might on the false belief that it was pure water. Harmful acts are never chosen as such, but only when the actor is ignorant of their evil nature.

Socrates' explanation of bad behavior was predicated on the assumption behind the *elenchus* that people intuitively know what virtue is, but that false beliefs acquired from their upbringing mask this knowledge and may lead them to do wrong. Once someone knows what virtue truly is, he will automatically act correctly. Thus, Callicles, having abandoned his dialogue with Socrates, participated in an aristocratic coup because he remained in the grip of the false belief that justice was the rule of the strong. In Socrates' account, Callicles was not evil, but simply misguided. Had he continued his encounter with Socrates, he would have learned that justice was not the rule of the strong, and would not have sought the overthrow of democracy. For Socrates, knowledge of the good—not a good will or love of virtue—was all that was needed to effect good behavior. Later Greek and Roman ethical philosophers, including Plato himself and the early Christians, found Socrates' intellectual solution implausible because, manifestly, some people enjoy wrongdoing, and even virtuous people sometimes knowingly do wrong because their wills are too weak to overcome temptation. Wrestling with the source of evil in human behavior became an important question for motivational psychology.

THE GREAT CLASSICAL PHILOSOPHIES

Plato: The Quest for Perfect Knowledge

Unlike his teacher, the son of a stonemason, Plato sprang from the old aristocratic class that was losing power as the Athenian *polis* became more democratic. When Sparta finally defeated Athens at the end of the long Peloponnesian wars, a clique of aristocrats, including two of Plato's relatives, carried out a short-lived coup against the Athenian democracy. Ironically, when the coup was defeated, Socrates was caught up in the purge of aristocrats and their supporters because so many of them, like Callicles, had been in his circle of students. Socrates was condemned to the death he chose in preference to exile from the city he loved. Plato naturally became disenchanted with politics as he knew it. Aristocrats, even relatives, friends, and students, might selfishly sacrifice the general good to their personal ambition. A democracy might fear and kill a loyal yet critical citizen because he questioned conventional ideas of virtue and sought to know Virtue itself.

Socrates, the first moral philosopher, had tried to find just such an overarching Good. His student, Plato, built on and broadened Socrates' moral concerns, filling

Socrates' *aporia* with his own philosophy. Plato dedicated his philosophy above all to the pursuit of justice both in the state and in the individual. The Greek word for justice, *dikaosune*, had a specific, relatively narrow meaning: getting out of life what one fairly deserved, no more and no less, reflecting the Greek goal of *hominioia*. Fish eaters and the aristocratic junta were guilty of justice's corresponding vice, *pleonexia*, grasping for more than one is fairly due. Plato tried to lead his students from their conventional Greek understanding of justice to a new one, doing good for its own sake and not for fame and glory. Plato's new understanding of virtue would later make its way into Christianity.

Cognition: What Is Knowledge?

Socrates had tried to find general definitions of the virtue and of Virtue itself. Plato saw that Socrates' quest was part of a larger undertaking—that of finding definitions for any sort of general terms. Just as we can define *courage* apart from particular courageous actions, or *beauty* apart from particular beautiful things or people, so we can define *cat* apart from any particular cats, or *fish* apart from any particular fish.

Talk of cats and fish may seem to make Plato's quest trivial, but it is not. What sets human beings apart from animals is having the capacity for abstract knowledge, while animals respond only to the concrete here-and-now. Science, including psychology, searches for general knowledge about how things are everywhere in the universe at any point in time. Psychologists run experiments on small groups of people, but build theories about human nature. In a social psychology experiment, for example, our concern is not why Bob Smith or Susan Jones failed to help a person in distress, but why people so often fail to help others in similar situations. Plato was the first thinker to inquire into how knowledge is possible and how it may be justified. In philosophy, he created the field of epistemology—the study of knowledge—that eventually gave rise to cognitive psychology.

Modern science, heir to the empiricist tradition in epistemology that Empedocles inaugurated, justifies its claims to knowledge by citing confirming observations. However, science has learned to live with an ugly fact about generalizations based on past experience: As Plato was the first to point out, what seems true based on today's data may be overturned by tomorrow's. The truth for which Socrates died cannot be so transient, so ugly, Plato thought. Centuries later, looking upon a Classical Grecian urn, John Keats uttered Plato's sentiments:

*When old age shall this generation waste,
Thou shalt remain, in midst of other woe
Than ours, a friend to man, to whom thou say'st,
"Beauty is truth, truth beauty,—that is all
Ye know on earth, and all ye need to know."*

Wrestling with Skepticism. For the Platonist, Truth, and hence our knowledge of it, has two overriding characteristics. First, like Keats's Grecian urn that outlasts human generations, a belief is True—is knowledge—if and only if it is true in all times and all places absolutely. Socrates wanted to know what justice or beauty *is*, apart from just acts and beautiful things, and knowledge of justice or beauty itself would therefore be true of all just acts and beautiful things in the past, now, and forever. Second, though not part of Keats's romantic yearnings, for Plato, as for Socrates, knowledge had to be rationally justifiable. A judge who always judges rightly or a connoisseur of impeccable taste does not, for Plato, genuinely know the truth unless he can explain his judgments and by force of argument convince others they are correct.

Unlike the later Skeptics, who were also students of Socrates, Plato never questioned Socrates' faith that there was a Truth to replace *aporia*, and he accepted earlier philosophers' arguments that sense perception was not the path to knowledge. From Heraclitus, Plato took the belief that the *phusis* was fire, and the conclusion that the physical world was therefore always in a state of becoming. Because the truth Plato sought lay in the realm of Being—eternally and unchangeably true—knowledge of it could not derive from material senses occupied with the changing material world. From the Sophists, Plato took the belief that how the world seems to each person and each culture is relative to each of them. Observation, therefore, is tainted by individual differences and the sort of cultural preconceptions that Socrates had challenged. Truth, then, could not be found in the error-prone processes of perception of the fleeting and imperfect world of ordinary experience.

Mathematics and the Theory of the Forms. So far, Plato had not gotten past Socratic *aporia*; Plato was convinced that transcendental Truth exists, and that perception was not the path to knowledge. Then, in midlife, Plato studied geometry with the Pythagoreans and was transformed by it, as Thomas Hobbes and Clark Hull would be centuries later. In mathematics, Plato found not only a path to truth but also something of the nature of truth itself. Plato came to side with Parmenides and Democritus in holding that the Way of Truth was the inward path of logic and reason rather than the outward path of Seeming, but went beyond them to indicate what Truth—Reality—was. In the *Phaedo*, Plato has Socrates conclude, "So when does the soul grasp truth? For whenever she undertakes to investigate anything with the body it is clear that she will be thoroughly deceived by the body. . . . Therefore it is in reasoning, if anywhere, that any reality becomes clearly revealed to the soul" (65b-c, trans. G. Vlastos, 1991).

Most of us have, in high school or college, done proofs in geometry, such as of the Pythagorean Theorem that the area of a square erected on the hypotenuse of a right-angled triangle is equal to the sum of the areas of squares erected on the other two sides. For Plato, the first revelation of geometry was the notion of proof. The Pythagorean Theorem was provable, and therefore True, a piece of genuine knowledge supported by logical argument rather than observation and measurement. The Socratic requirement that knowledge be justified by reason was satisfied by geometry because anyone who followed the steps of the proof is compelled to believe the theorem. Geometry supported rationalism's claim that logic was the Way of Truth.

Plato went on to assert that reason was the way to Reality, too. The Pythagorean Theorem is true not merely of a triangle drawn by someone doing the proof, or of all the people who have ever done or will do the proof, but of every right-angled triangle. However, given that the Pythagorean Theorem is true, and that it is not true simply of triangles drawn by mathematicians, or a mere statistical generalization from a sample of triangles, but is a real universal proof, of what object is it true? Plato asserted that it was true of what he called the *Form of the Right-Angled Triangle*, an eternally existing, perfect right-angled triangle of no particular size.

The idea of Form helped reconcile Being and Becoming and provided a solution for Socrates' questions about Virtue that went beyond ethical philosophy. Forms belong to the realm of Being, subsisting eternally, while their material but ephemeral copies belong to the realm of Becoming. Similarly, in Socrates' ethical realm, every courageous act resembles the *Form of Courage*, every beautiful object resembles the *Form of Beauty*, and every just act resembles the *Form of Justice*. Courage, Beauty, and Justice—each of them being good—resemble the *Form of the Good*. Genuine knowledge then, which Socrates

had sought in the moral domain, was knowledge of the Forms of things, not of things themselves.

It is important to grasp an aspect of Plato's thinking that is alien to us. We tend to believe that thinking a sculpture or a person is beautiful is a matter of subjective, aesthetic judgment, largely shaped by what our society tells us is beautiful. Other people in other cultures might feel otherwise, and like the Sophists, we accept that as simply a difference. From Socrates, Plato accepted that societies might instill different views of beauty and ugliness, but, like Socrates, he did not conclude that judgments of beauty were matters of local taste. For Plato, a person or sculpture was beautiful by resembling the Form of Beauty; a sculpture or person was ugly by departing from the Form of Beauty. Similarly, an act was good because it participated in the Form of the Good. Beauty and virtue were not subjective judgments of people and cultures, but real properties that objects actually possessed, like size or weight. If two people or cultures disagreed about whether a person was beautiful or an act virtuous, at least one of them was wrong because he or she was ignorant of the Form of Beauty or The Good. Socrates' goal was to find out what virtue was and teach it to people—regardless of social opinion—so they could act upon their knowledge. Plato's position is metaphysical realism: The Forms *really* exist as *nonphysical* objects. Indeed, for Plato, the forms were more real than their physical copies.

Imagining the Forms. As Plato realized, describing the Forms is difficult, if not impossible, because by their very nature they cannot be displayed. Instead, Plato offered metaphors for the Forms, descriptions of the "child of goodness" rather than Goodness itself (*Republic*, 506e, trans. R. Waterfield). Three of these similes, the Sun, the Line, and the Cave are given in the *Republic*. A fourth, which offers a psychological path to the Forms, the Ladder of Love, occurs in the *Symposium*, probably written just before the *Republic*.

The Simile of the Sun: Illumination by the Good. In the Simile of the Sun, Plato says that the Form of the Good is to the intelligible world of the Forms what the sun is to the physical world of objects, the copies of the Forms. Plato did not think of vision as happening because light entered the eye, as we do today; that conception lay centuries in the future (Lindberg, 1992). Instead, the eye was thought to have a power of seeing by sending out rays that struck physical objects. Nevertheless, everyone recognized that light had to be present in order for vision to occur, because it's hard to see at night. The light of the sun was the "other third thing" needed (in addition to the eye and an object) for vision to occur. In the intelligible realm, reason has the power to grasp the Forms as in the physical world the eye has the power to see. However, in the intelligible realm, an "other third thing" is needed to illuminate the Forms, making it possible for reason to know them. By themselves, the senses lack the power to perceive the world accurately, but need the help of divine illumination. Plato says that the "third thing—the source of divine illumination—is the Form of the Good, analogous to the light of the Sun on earth."

The Metaphor of the Line: The Hierarchy of Opinion and Knowledge. The Simile of the Sun is followed by the appropriately geometrical Metaphor of the Line. Imagine a line (Figure 2-1) divided into four unequal sections whose relative length is a measure of its degree of truth. The line is first divided into two large sections. The lower and shorter section stands for the world of Appearances and opinions—beliefs without proof—based on perception. The higher and longer section stands for the world of the Forms and provable knowledge about Them. The world of Appearances line is further divided into segments

	OBJECTS	STATES OF MIND
INTELLIGIBLE WORLD	The Good	Intelligence or D Knowledge
	Forms	
	Mathematical objects	C Thinking
WORLD OF APPEARANCES	Visible Things	B Belief
	Images	A Imagining

FIGURE 2-1 Plato's metaphor of the line. (From Cornford, 1945)

for the worlds of *Imagining*, the shortest line segment of all, and of *Belief*, next shortest in length.

Apprehension of images is the most imperfect way of knowing. Imagining is the lowest level of cognition, dealing with mere images of concrete objects, such as images cast in water. Plato relegated representational art to this realm, for when we see a portrait of a man we are seeing only an image, an imperfect copy of a thing. Plato banished representational art from his utopian Republic, and his hostility to images entered later religions. In 2002, the world looked on with horror as the Taliban of Afghanistan destroyed large statues of Buddhas because they represented the human form. Better than looking at images is looking at objects themselves; Plato called this *Belief*. With the next, longer section of the line, *Thinking*, we move from mere opinion to real knowledge, beginning with mathematical knowledge. Proofs vouchsafe the truth of mathematical propositions, and the objects of mathematical knowledge are not observable things but Forms themselves.

Mathematics, however, while providing a model of knowledge, was recognized by Plato to be imperfect and incomplete. It is imperfect because mathematical proofs assume ideas that cannot themselves be proven, falling short of the Socratic ideal of justified knowledge. For example, geometrical proofs—the form of mathematics most developed in Plato's time—depend on acceptance of axioms, which themselves are intuitively appealing but unproven, such as the axiom that parallel lines never meet. Plato sensed what later turned out to be correct, that if one changes the axioms, different systems of geometry emerge. To be True in Plato's sense, then, geometry needed metaphysical support, which he provided with the Forms. Mathematics is incomplete because not all knowledge concerns mathematics. Highest in importance were the moral truths sought by Socrates. The highest and longest segment of the line, then, represents the *World of the Forms*, the place of all Truth, mathematical or otherwise. Greatest among the Forms is, naturally, the Form of the Good, the ultimate object of Socrates' and Plato's quest.

The Allegory of the Cave: The Prison of Culture. The third “child of goodness” in the *Republic* is the most famous, the Allegory of the Cave. Imagine people imprisoned in a deep cave, chained in such a way that they can look only at the back wall of the cave. Behind them is a fire with a short wall between it and the prisoners. Bearers walk along a



Plato's Allegory of the Cave (Jan Saenredam, 1604). This Renaissance painting depicts Plato's Allegory of the Cave. The figures in the lower right are the prisoners in the cave, pointing to the shadows cast by objects held in front of the fire by the bearers walking on the platform behind them. The figures at the upper left are in the real world, pointing at the sun. In the middle is a man who in Plato's allegory is released from the Cave and brought out into the real world of illuminated by the sun's light, and is then re-imprisoned. Which of these two events the artist depicted is ambiguous.

path behind the wall, holding above it statues of various objects, so that the objects cast shadows on the wall for the prisoners to see. For the prisoners, “the shadows of artifacts would constitute their only reality” (515c, trans. R. Waterfield).

“Imagine that one of them has been set free and is suddenly made to stand up, to turn his head and walk, and to look toward the firelight” (515c–d). Plato (1993) goes on to tell how hard it would be for the liberated prisoner to give up his familiar reality for the greater reality of the fire and the statues. Harder still—he must be “dragged forcibly” through “pain and distress”—is the ascent past the fire out the mouth of the cave and into the world itself and the sun that illuminates it. Ultimately, he would feel joy in his new situation and look with disdain on the life he previously led, with its traditionally Greek pursuit of honor and glory. Finally, Plato asks that we imagine the prisoner returning to his old spot in the darkness, not seeing well, yet knowing the Truth. “Wouldn't he make a fool of himself? Wouldn't they [the other cave dwellers] say that he'd come back from his upward journey with his eyes ruined and that it wasn't even worth trying to go up there? And wouldn't they—if they could—grab hold of anyone who tried to set them free and take them up there and kill him?” (517a).

Plato offered the cave as an allegory of the human condition. Each soul is imprisoned in an imperfect fleshly body, forced to look through eyes at imperfect copies of the Forms, illuminated by the sun. Moreover, the soul is victim to the conventional beliefs of the society in which it lives. As the freed prisoner turns his head around from the shadows to reality, Plato asks us to turn our souls around from the ordinary world and our cultural presuppositions, and undertake the difficult journey to the better world of the Forms, the true Reality of which objects are but shadows. The Allegory of the Cave is at once optimistic and pessimistic (Annas, 1981). The optimism lies in the promise that, with effort, we can be liberated from ignorance and illusion. The cave is culture, the web of conventional beliefs Socrates' *elenchus* brought into question. Through philosophy and right education, however, we can escape from the cave of opinion and Appearances to the realm

of knowledge and Reality. We may know the truth and it shall make us free. The pessimism lies in the difficulty and dangers of the path upward. It is not, Plato says, for everyone; it is only for an elite few whose character can bear its burdens. Most people do not want to be free, he suggests, and will greet their would-be liberators with jeers and even death.

The story is also an allegory of Socrates' life. He once was a political animal and a brave soldier, but caught a vision of Truth that he tried to share with the world to his own cost. Centuries later, when the *Republic* became known to Christians, the Allegory of the Cave and Socrates' life made powerful impressions, striking deep resonances with the story of Christ, who assumed human form, taught the truth, and was executed by disbelieving men.

The Ladder of Love: Being Drawn to the Good. The fourth metaphor for the Forms, the Ladder of Love in the *Symposium*, describes the love of Beauty, which Plato once said was the easiest path from this world to the Forms, and which inspired the romantic poet Keats. Through the female character Diotima, Plato describes an upward ascent from profane physical love to sacred love of the Form of Beauty itself. The introduction of Diotima into the *Symposium* is quite significant. Athenian men deprecated women. They were not citizens; they could not be warriors because they were physically weak. Athenian men looked upon women as vehicles of procreation only. They treated women much as the Taliban of Afghanistan did: They were to remain at home, out of sight of men; slaves went out to do shopping and other chores. The only women allowed into a symposium were the most expensive prostitutes, the *hetaera*. Yet, at the same time, if war was the province of men, religion was the province of women. Thus, Plato suggests that Diotima's teachings on love to Socrates, and through him to his audience at the symposium, are a divine revelation rather than a philosophical argument.

The first rung of the ladder is sexual love, but it must be steered in the right direction by a philosophical guide, as Diotima was said to have led Socrates. The student "begin[s] while still young by going to beautiful bodies; and first, if his guide guides rightly, to love one single body" (201a). Plato's (1991) formulation of this first step depends on the conception and practice of male homoerotic love in Athens and much of the Classical world. Greek citizens—all male—spent most of their time together, shunning home life. In this atmosphere, a well-defined homoerotic culture grew up, as Greeks did not categorize people as heterosexual or homosexual (Garrison, 2000). Established citizens would take as lovers beautiful youths who had just entered puberty but whose beards were not grown and so were not yet citizens themselves. The older man became a mentor and teacher to the youth, and sometimes the relationship would last throughout life. The Greeks regarded the erotic connection between teacher and student as essential to the education of youth (Pomeroy et al., 1999) and as part of the initiation of a young man into the warrior band (Rahe, 1994). As the Greeks sequestered their women, homosexual relationships also formed among women, especially at Sparta, whose men were rarely at home, living in their barracks or away at war. Among both men and women, homosexual relationships provided the companionship and emotional intimacy later linked to marriage in Hellenistic and Christian cultures (Pomeroy et al., 1999).

The exact nature of these relationships, especially the kind of physical intimacy that took place, remains controversial. In the highest theory, the relationships were, as our saying goes, "platonic," although there is no question that sexual activity did in fact occur. Socrates, although susceptible to beautiful youths, condemned any sexual liaisons with

his students, saying it was always bad for the young men. The *Symposium* ends with the story of Alcibiades, the most beautiful youth of his day and a student of Socrates, recounting the abject failure of his aggressive attempts to seduce Socrates. Socrates' resistance to Alcibiades' attempted seduction shows that while lust is the first step toward knowledge of the Beautiful, it must be abandoned by learning philosophy, which means love of wisdom.

In the conception of love in the *Symposium* (1991) and most of Plato's works (his last, the *Laws*, in which Socrates is absent, condemns homosexuality outright), love of women was inferior to homosexual love. Love of women leads to procreation of children, seeking immortality through merely physical offspring. Greek men tended to fear women as sexual temptresses who pulled their eyes from better things such as politics, war, or, for Socrates and Plato, philosophy and the pursuit of the Good. Such fear of sexuality passed over into certain strands of Christian and Islamic thought, where physical pleasure was regarded as distracting men from knowing and worshipping God. Better than physical procreation—being "pregnant with respect to the body"—Plato thought, was being "pregnant in respect to [one's] soul" (209a), seeking immortality in the soul itself and through teaching students, and having intellectual rather than physical heirs.

Having learned to love one beautiful body, the student "next, learn[s] to recognize that the beauty on any body whatever is akin to that on any other body. . . . Realizing this, he is constituted a lover of all beautiful bodies and relaxes this vehemence for one, looking down on it and believing it of small importance. After this, he must come to believe that beauty in souls is more to be valued than in the body" (201b–c). With Socrates, we move beyond the love of the body to the love of the soul, and such a man will teach ugly youths of good soul—Socrates was famously ugly—believing "bodily beauty a small thing" (201c). Now, the teacher introduces the student to other kinds of beauty in practices such as music and art, and in studies such as mathematics and philosophy.

The lovers on Keats's Grecian urn are "forever panting and forever young." For Plato, however, when properly guided, *eros* goes beyond the pantings of physical love to a union with Beauty itself in the realm of the Forms where Truth is Beauty and Beauty in Truth:

He who has been educated in the things of love up to this point, beholding beautiful things rightly and in due order, will then, suddenly, in an instant, proceeding at that point to the end of things of love, see something marvelous, beautiful in nature: it is that, Socrates, for the sake of which in fact all his previous labors existed. . . . But when someone, ascending from things here through the right love of boys, begins clearly to see that, the Beautiful, he would pretty well touch the end. For this is the right way to proceed in matters of love, or to be led by another—beginning from these beautiful things here, to ascend ever upward for the sake of that, the Beautiful, as though using the steps of a ladder; from one to two, and from two to all beautiful bodies and from beautiful bodies to beautiful practices and from practices to beautiful studies, and from studies one arrives in the end at that study which is nothing other than the study of that, the Beautiful itself, and one knows in the end, by itself, what it is to be beautiful. It is there, if anywhere, dear Socrates . . . that human life is to lived: in contemplating the Beautiful itself. (210e–210d)

In the *Republic*, the Ladder of Love is elaborated into the lengthy and painstaking form of education laid down for the Republic's philosopher-leaders, the Guardians. As children, they receive the same moralizing form of education as all citizens. Plato proposes

carefully censoring literature, including Homer, whose *Iliad* and *Odyssey* were the Greeks' Bible, replacing it with tales crafted by teachers to build proper character. Music, too, is carefully controlled, so only what is perfect and pleasant is heard. Athletics train the body as literature and music train the soul. Only the elite of the noblest souls—including women—however, are selected for higher, academic education. Through philosophy, the Guardian elite is led out of the Cave of Opinion to knowledge of the Forms, but they are obligated to return to the best cave going, Plato's Republic, and rule disinterestedly out of their inspired wisdom. Only they know what is best for all the citizens of the Republic.

The Spartan Equals inspired Plato's Guardian class, although the Guardians were not to be warriors. The Greek tension between what is owed to the polis and what is owed to the family (*oikos*) was solved by Plato along Spartan lines. He extended the idea of Spartan barracks life by forbidding marriage though not sexual union among the Guardians. They thus had no *oikos* to draw their attention away from choosing what was best for their Republic. A form of testing was implicit in Plato's Republic, because offspring of the lower classes (see the following discussion) might enter the Guardian class if they were worthy. We have seen that, at Sparta, a government official, not an infant's parents, decided if a child was to be accepted as a Spartan or exposed to death, and Plato incorporates this practice into his ideal Republic.

Learning as Remembering: Knowledge Is Within Us. In some other dialogues, a different path to the Forms is described that resembles Socrates' midwifery. From his Pythagorean education and from the Greek religion of Orphism as well as other religious influences, especially Hindus entering Greece from the east, Plato adopted the idea of reincarnation. For example, in the *Phaedrus*, Plato works out a detailed scheme by which souls go through a cycle of reincarnations. Souls are born in heaven, and thus see the Forms before their first incarnation in "the pollution of the walking sepulcher we call a body" (250c, trans. W. Hamilton). The future fate of a soul depends on how virtuous a life it led on earth. At death, souls are brought to judgment. The wicked "go to expiate their sins in places of judgment beneath the earth" (249a) and may come back as beasts. The virtuous, especially those who had been philosophers (who on the third straight incarnation as philosophers, escape the wheel of rebirth), will ascend to the highest reaches of the heavens, and in the train of the gods see the Forms again. The less virtuous ascend less high in heaven and are more quickly reincarnated as lesser humans such as financier (third best) or farmer (seventh).

Thus, "every human soul by its very nature has beheld true being" (250a). In the sepulcher of the body, however, the "beatific vision" of the Forms is forgotten, more in bad people than in good. Knowledge of the Forms may be regained, however. As contemplation of beautiful things leads us to knowledge of Beauty itself because all beautiful things resemble Beauty, so all cats resemble the Form of the Cat, gerbils the Form of the Gerbil, just acts the Form of Justice, and so on for all universal concept terms. Because of the resemblance of things to the Forms that are within us, we can "collect out of the multiplicity of sense-impressions a unity arrived at by a process of reason. Such a process is simply the recollection of things which our soul once perceived when it took its journey with a god . . . gazing upwards toward what is truly real" (249b). Plato appealed to reincarnation to explain how Socrates could act a moral midwife giving birth to knowledge of virtue without explicitly teaching it. Knowledge of virtue, like all knowledge, is latent in the soul, hidden by the body and conventional belief, awaiting the right stimulus to be recollected.

Perhaps the oldest enduring controversy in the history of psychology is the debate between *nativism* and *empiricism*, nature and nurture. Plato is the first great exponent of nativism, holding that our character and knowledge are innate, being carried by the soul from its vision of the Forms and its lives in previous incarnations. Learning is a process of recollecting to consciousness what we already know but of which we have become ignorant.

Motivation: Why Do We Act as We Do?

As a moral philosopher, Plato addressed questions about human motivation. Although he accepted the Greek beliefs that happiness (*eudaemonia*) and virtue are intimately connected and that all people naturally seek happiness, he did not accept his teacher's view that wrong deeds are always the result of ignorance. In the *Republic* and *Phaedrus*, Plato proposed a different psychology of human motives and human action.

Plato divided the citizens of the Republic into three classes. By virtue of innate greatness of soul and the academic education it merits, the elite Guardians constitute the ruling class. Next in character are the Auxiliaries, who aid the Guardians by acting as soldiers, magistrates, and other functionaries of the Republic. The mass of the citizens makes up the least inherently virtuous Productive Class. In a way reminiscent of Homeric mini-soul psychology, Plato postulates three forms of soul present in every human being that parallel the three classes of citizens. Class membership is determined by which soul rules each citizen.

The highest form of soul, and the only immortal one, is the *rational soul*, located in the head because the soul, being perfect, must be round and must be located in the roundest and highest part of the body. The rational soul rules in the Guardians and will be led back to the Forms from which it came by philosophical education. The second form of soul is the *spirited soul*, located in the chest and dominant in the Auxiliaries. The spirited soul represents the old Homeric virtues, being motivated by glory and fame. Because of its quest for noble things like glory and the immortality of fame, and because it can feel shame and guilt, the spirited soul is superior to the third soul, the *desiring soul*, located in the belly and genitals. The desiring soul is a disparate grab-bag of irrational wants. Physical desires for food or sex, which we share with animals, are paradigm cases of the appetites of the desiring soul, but desire for money is also located there. It may be best to think of the desiring soul as the pursuit of self-interest, which the Greeks always deprecated. It dominates in the Productive Classes, who are described as unfit to rule precisely because they seek their own interests, not the general interest of the polis. Only the Guardians may rule because their reason places them beyond self-interest.

As in his doctrine of reincarnation, Plato's depiction of the ideal society and the mapping of its classes onto aspects of personality were probably influenced by ancient Indian theology. The Hindu Rig Veda divided society into four castes: the *Brahmans*, theologians and ultimate rulers; the *Kshatriya*, warriors and day-to-day rulers; the *Vaisa*, professionals and artisans; and the *Sudra*, laborers. In a way we've learned is characteristic of Greek thought, Plato folds the last two Hindu castes—who both work rather than think or rule—into a single productive class. Like Plato, the Hindus identified each class with an aspect of the person, soul, intellect, mind, and body, and with a corresponding part of the body, head, head, heart, loins, and feet (Danto, 1987).

In the *Phaedrus*, the three forms of soul are given in a famous metaphor later alluded to by a psychologist deeply read in the classics, Sigmund Freud. Plato depicts human personality as a chariot pulled by two horses. One horse is "upright and clean limbed

... white with black eyes" whose "thirst for honor is tempered by restraint and modesty. He is a friend to genuine renown and needs no whip, but is driven simply by the word of command. The other horse is lumbering, crooked and ill-made. . . . wantonness and boastfulness are his companions and he is . . . hardly controllable even with whip and goad" (253d, trans. W. Hamilton). The first horse is the spirited soul; the second is the desiring soul. The charioteer is the rational soul, which should master the horses and drive them toward the good. Mastering the spirited soul is easy because it knows honor, and therefore, something of virtue. Mastering the desiring soul is nearly impossible; the most strenuous efforts by reason are required to break it utterly. Plato's conception of the desiring soul reflects Greek disdain for slaves. Slaves, Greeks said, are ignoble because they "observe everything from the perspective of the stomach" (quoted by Rahe, 1994, p. 19). Even when the rational soul thinks it is master, desire springs up in dreams, said Plato. In dreams, a person "doesn't stop at trying to have sex with his mother . . . he doesn't hold back from anything, however bizarre or disgusting" (*Republic*, 571d, trans. R. Waterfield). As the Spartans feared rebellion of the helots, the rational soul of the Guardians feared rebellion of the desiring soul.

According to Plato, and unlike Socrates, bad behavior may stem from more than ignorance; it may stem from insufficient mastery of the rational over the spirited and desiring souls. Foolish pursuit of honor may lead to disasters such as the Charge of the Light Brigade. Even worse are the sins committed by giving in to the demands of the body. In the *Phaedrus*, Plato vividly describes the torments of a philosophical lover for a beautiful youth. Reason knows physical consummation of love is wrong, but the desiring horse races headlong into it. Only by the strongest measures, yanking on the reins until the horse's mouth is drenched in blood and beating its haunches until they collapse to the ground, will "the wicked horse abandon its lustful ways" (254e, trans. W. Hamilton) and submit to the commands of reason.

Plato's analysis of human motivation contains, however, a profound muddle that haunts later philosophical and scientific psychology (Annas, 1981). In his explicitly psychological descriptions of human personality, reason was sharply differentiated from irrational passion. The desiring soul, and to a lesser extent the spirited soul, simply *want*, being incapable of any sort of rational calculation at all; they are all drive and no reason, providing the energy that makes the chariot go. Reason is directive, steering the motivational souls to good ends; it is all reason and no drive, providing direction but not energy.

However, when Plato described the souls operating in the citizens of his Republic, the picture becomes more complicated. Citizens of the Productive Class are supposed to be dominated by desire, but they do not dash about in a confused orgy of lust and gratification—they are productive. Merchants must be able to calculate how to buy or make goods that people want; how to price and market them. Tailors and shoemakers must be able to design clothes and shoes and properly execute the means to make them. Similarly, Auxiliaries must be able to make and carry out battle plans.

Members of the Productive and Auxiliary classes clearly can calculate means to ends, suggesting that the desiring and spirited souls themselves have some measure of reason, being not mere engines of action. Reason, for its part, does more than merely steer behavior. The souls of the Guardians seek knowledge out of a special kind of *eros*, drawn not to physical bodies but by love of the Good and Beautiful themselves. Reason, then, is more than a calculator; it has a motive of its own: justice.

Western thought from Plato's time to our own has wrestled with the relationship between reason on one side and emotion and motivation on the other. Most classical and

Hellenistic theorists favored Plato's official theory, distrusting emotion and subordinating it to reason. The Stoics (see following discussion) aimed to completely extirpate the emotions and live by logic alone. On the other hand, the ecstatic Greek religions clearly distrusted reason, and found in strong feeling a pathway to the divine, as would the later Romantics such as Keats. In the Age of Reason, David Hume (see chapter 5) spoke up for feeling, saying that reason is and can only be a slave to the passions (the emotions), capable of steering them but not of initiating action on its own. Freud agreed with Hume but modified Plato's image. With the Homeric warrior virtues lost by 1900, Freud described the rational ego as a rider struggling to master the horse of the id, Plato's desiring soul. Others, however, saw more in feeling than irrational desire. Shortly before Hume, Blaise Pascal wrote that the heart has its reasons that reason does not understand; later, the Romantics revolted against cold reason, elevating feeling and intuition over scientific calculation. In our own day, we worry about the triumph of the computer—the very model of Plato's charioteer—and about computer-inspired models of the mind, for which motives to do anything are missing. Today, psychologists are discovering that Pascal was right (Damasio, 1994; Goleman, 1995).

Plato's chariot image contains another difficulty of longstanding in psychology, called the *homunculus problem* (Annas, 1981). *Homunculus* means "little man." Plato asks us to imagine that the driver of a person's behavior is the rational soul, a charioteer. He thus invites us to think of the rational soul as a little man inside the head, who steers the behavior of the body and manages the passions of the heart, belly, and genitals the way a charioteer steers the chariot and masters its horses. However, what accounts for the behavior of the little charioteer—reason—inside the head? Does he have inside an even smaller charioteer (an inner Mini-Me)? Who has, in turn, a still smaller charioteer? And so on, *ad infinitum*? To explain the behavior of a person by positing a small person inside is not adequate, because the actions of the inner person, the *homunculus*, remain unexplained, violating the Iron Law of Explanation. To what extent Plato is guilty of this mistake is unclear (Annas, 1981), but it is a mistake that will crop up in psychology from Plato's day to our own.

Conclusion

Although Plato began with Socrates, he ultimately went a great deal further, constructing the first general point of view in philosophy. We must call it a point of view rather than a system, because, unlike Aristotle, Plato did not work out a set of systematically interlocking theories across the whole range of human knowledge. For example, Plato's so-called Theory of the Forms is less a theory in epistemology than a vision, tempting to some people, of a higher reality (Annas, 1981). The Forms appear in different guises in different dialogues, and appear not at all in many. In the late dialogue, the *Thaetetus*, Plato discusses knowledge without mentioning the Forms, and concludes that truth is elusive. That Platonic thought was more a point of view than a system made it easy for Christian thinkers to assimilate during the early Middle Ages. Christians could pick and choose the most appealing parts of Plato and identify the realm of the Forms with Heaven.

Plato's ideas resonate with other religions, too. For example, the basic idea of the Ladder of Love—that one can move toward enlightenment beginning with physical love—is found in the Hindu path of *Kama* (pleasure) and the Buddhist use of love imagery to lead the soul to the light of the *One*, although these ladders do not involve homosexuality. Many, if not most, world religions teach that, in addition to this physical world, there is an invisible world of spirits. As with love, Brahman Hindus and Buddhists

teach that this world is an illusion, *Maya*, and that the soul must have as little to do with it as possible or risk more reincarnations. With Plato, they bid the charioteer of the body to discipline desire, but go beyond metaphor to prescribe practices by which the desiring soul may be broken. In the *Phaedrus*, Plato talks metaphorically about controlling lust for one's beloved. Tantric Yoga and Daoist masters provided concrete instructions on how to have sexual intercourse with perfect rational control while withholding orgasm to obtain spiritual strength (*Tantrism*) or personal health (*Daoism*).

There is often an otherworldly, religious cast to Plato's thought because his philosophy was greatly influenced by changes taking place in Greek religion (Morgan, 1992). Greek life was permeated by religion—festivals and sacrifices to the gods were an everyday affair. Greek religion was the special arena of women as politics and war were the special arenas of men. Greek beliefs and practices were pluralistic, but in the *polis* tradition that was on the way out, there was an emphasis on the radical separation of the human and divine worlds. The famous Greek epigram "know thyself" was not only an invitation to self-scrutiny, it was also an admonition to accept one's place in the universe. The gods are divine and immortal; we are not. The Greeks valued self-control (Davidson, 1998), making *hubris* (overweening pride) and *pleonexia* (greed) the most important sins in Greek eyes. The tendrils of a different kind of religion first appeared in movements such as Pythagoreanism and Orphism. These religions were more mystical, teaching how to commune with the gods and teaching the existence of an immortal human soul.

Following the stresses of the Peloponnesian War (431–404), and the defeat of Athens, the Greek world experienced a religious revolution (Burkert, 1985). New, mystical cults and ecstatic practices replaced the *polis* tradition of seeking favors from the gods by making sacrifices to them. In these new rites, worshippers used music, wine, and erotic stimulation to achieve a divine madness, *mania*. The goal was to unite with the god they worshipped (Dionysos, for example) in a divine, transcendental moment that would purge the initiate of her or his sins. These new religions also taught that each person has a divine, immortal soul. Plato accepted the new teachings, but sought to tame their excesses (Morgan, 1992). He, too, taught that each person has an immortal soul, but that the path to salvation lay through philosophy, combining the new belief in a world beyond this one with the traditional Greek injunction to know thyself and exercise rational self-control.

Plato's otherworldliness takes us to points on which Plato changed Socrates' teachings in ways Socrates himself might have found disturbing. Once he had his own philosophy to push, Plato discarded the penetrating search of the *elenchus* for dialogues in which "Socrates" students come off as toadies, saying "Oh yes, wise Socrates," and "It cannot be otherwise." Disdaining wealth and fame, Socrates was unworldly, but he was not otherworldly (Vlastos, 1991). Socrates never mentioned the Forms, and he always meant a virtuous life to be worthwhile in *this* world, not some imagined afterlife, recalling imperial Athenians to the path of *sophrosyne*. Socrates would converse with, and try to teach virtue to, anyone willing to undertake the *elenchus*. Plato was an elitist, reserving academic education for an innately wise ruling class, the Guardians, and, among them, he reserved philosophy only for the mature, over age 30, (the age at which Spartans could leave their barracks) fearing it would make the young lawless.

Plato's otherworldliness and search for eternal Being had an important effect on the history of science. Recall that *theoria* meant contemplation—for Plato, contemplation of the Forms—for Greeks, the highest form of knowledge. Plato, and the Greeks generally, disdained practical, useful knowledge, which they called *metis* (Eamon, 1994), associated

with the profit-seeking tradesmen who moved to Athens because of its wealth and were *metics* rather than citizens. For many centuries to come, philosophical thought in both Europe and Islam would be identified with demonstrable, abstract knowledge rather than the active experimental inquiry into nature we associate with science today. Moreover, practical applications of science were rarely sought before the Enlightenment. As late as 1730, the British patent office rejected patents for devices that were labor-saving (Jacob, 1988). In the Greek scheme of things—which Plato polished to high perfection—truth had little, if anything, to do with the world in which humans live. It was something to escape, not embrace and improve.

Whatever its faults, the Platonic vision has been immensely influential. The twentieth-century philosopher and mathematician Alfred North Whitehead said, "The safest general characterization of the whole Western philosophical tradition is that it consists of a series of footnotes to Plato" (quoted by Artz, 1980, p. 15). Returning a copy of the *Republic* to Ralph Waldo Emerson, a Vermont farmer said, "That book has a great number of my ideas" (quoted by Artz, 1980, p. 16). It is to Plato's great student and rival we now turn.

Aristotle: The Quest for Nature

Like Plato, Aristotle (384–322 B.C.E.) came from a wealthy family, but from the remote province of Macedonia. His father was a physician to a Macedonian king, and Aristotle was a biologist as well as the first truly systematic philosopher. At 17, he went to the Academy to study with Plato, and remained there for 20 years. When Plato died, Aristotle left the Academy and traveled around the Adriatic doing zoological research, until being called by King Phillip II of Macedon to be tutor to his son, Alexander. Eventually, Aristotle returned to Athens and founded his own place of learning and research, the *Lyceum*. After Alexander the Great's death in 323, anti-Macedonian feeling prompted Aristotle to flee Athens, fearing that Athenians might "sin twice against philosophy." He died in the town of Chalcis soon after.

The differences between Plato and Aristotle begin with temperament. Plato never developed a systematic philosophy, but wrote dramatic and provocative dialogues laying out a stirring cosmic vision, and there was clearly about him, as about so many Greek thinkers, something of the seer and shaman. Aristotle, on the other hand, was first and foremost a scientist, an empirically inclined observer of nature as the rationalist Plato could never be. Whether writing about the soul or ethics, metaphysics or politics, dreams or art, Aristotle was always practical and down to earth. His surviving works are prose treatises, probably lecture notes. In them, we hear the voice of the first professor, reviewing the literature—fortunately for us, else we would know next to nothing about the naturalists—before advancing his own carefully thought out and often reworked ideas. Even while philosophizing, Aristotle remained a scientist. We never find in Aristotle the otherworldly quasi-mysticism of Plato.

Instead, Aristotle was always concerned with discovering what is natural, and until the term *scientist* was coined in the nineteenth century, people who studied nature were called *natural philosophers*. Unlike Plato, for whom what is most real exists in heavenly Being rather than on earth, Aristotle, the biologist, looked to this world to define what is. Unlike the Sophists, he drew no sharp line between *phusis* and *nomos*, believing that the human way of life should be built on what was best for human nature.

Philosophy of Science

Aristotle worked out a comprehensive philosophical system, including the first psychology. As a working scientist who was also a philosopher, Aristotle painstakingly considered the goals and methods of science, defining in large measure what science would be until the Scientific Revolution of the seventeenth century overthrew Aristotle to create the very different science we know today.

The Four Fashions of Explanation. Aristotle set out four ways by which to explain things and events. Like Plato, Aristotle tended to focus on the former more than the latter, on understanding what a thing is, rather than on the dynamics of change, the focus of modern science.

The most basic, conceptual division for Aristotle was between form and matter. Aristotle's conception of matter was very different from ours. Today, we think of matter as coming in distinct types with distinct properties, as in the elements in the atomic table or the list of subatomic particles of quantum physics. However, for Aristotle, precisely because they can be distinguished and defined, such particles are already mixtures of intelligible form and raw matter. In his conception, matter was sheer, undifferentiated physical existence. The closest modern parallel to Aristotle's conception of matter is matter as it existed in the first seconds after the Big Bang, before the particles and elements had come into existence. Matter as such was unknowable, said Aristotle; for matter to be knowable—to be an object of perception and science—it has to be joined to form.

Form is a term Aristotle took from Plato, but characteristically he stripped it of its heavenly existence and demystified it; hence, in Plato it is *Form*; in Aristotle, *form*. Form is, most generally, what makes a thing that which it is, defining it and making it intelligible to us. The paradigm example of the relation of form and matter has always been a statue. Imagine a bronze statue of the type that stands on Monument Avenue in Richmond, representing a Confederate Civil War general such as Robert E. Lee or tennis champion Arthur Ashe.

The *matter* of a statue is what it is made of; in the case of a Monument Avenue statue, it is bronze. When the bronze is cast, it takes on form, becoming a likeness of Lee or Ashe. The form makes the statue what it is. The same bronze could be cast as Lee or Ashe: same matter, different form. We can also have the same form in different matter: the figure of Lee or Ashe might be rendered in plaster, clay, or plastic. What makes something a statue of Robert E. Lee or of Arthur Ashe is, then, its form, not its matter, and we know the statue through the form rather than the matter. In perception, Aristotle said, the mind receives the form of an object but not its matter.

Aristotle rejected what he called the *separability of the Forms*, Plato's thesis that the Forms exist in a realm of Being far from our imperfect physical world. Aristotle's general standpoint was that separate Forms do not explain anything. They are just glorified individuals—perfect, heavenly individuals, true—but individuals nonetheless. There is no reason to think that if an artist casts 100 identical statues there must be a separate, 101st heavenly Form of the Statue that they all resemble. Similarly, there may be thousands of cats in the world, but there is no reason to think there's an additional heavenly Form of the Cat, too. Positing one perfect Cat (or statue) does nothing to explain the nature of the physical cats (or statues) we see. We lose nothing by dropping the separate Forms.

Aristotle's concept of form, however, is more than just shape and is comprised of the other three causes. First, form defines what something is in its essence: *essential*

cause. Essential cause is definition. What defines a statue as being of Lee or Ashe is form—specifically, form as essential cause. Second, form includes how things come into existence or are made: *efficient cause*. The efficient cause of a bronze statue is the process of casting the metal; of a marble statue, the processing of chipping and polishing a block of marble into the desired shape. Third, form includes the purpose for which a thing exists: *final cause*. Statues are erected to honor a great person and perpetuate his or her memory. Taking all these things together—a thing's shape and essence, its process of creation, and its purpose for being—constitute a thing's form, why it is what it is.

Although as a scientist Aristotle was more concerned with the physical world than Plato had been, his philosophy of science was unlike modern science in one crucial, methodological respect. Aristotle observed nature and offered accounts of how nature works, but he did not interrogate nature through experimentation. He continued in the Greek tradition of disdaining practical knowledge in favor of developing abstract theories that demonstrated why the world is the way it is. Finding new and useful facts and techniques was never one of his goals.

Potentiality and Actuality. In Aristotle's conception, everything in the universe (with two exceptions) has both potentiality and actuality. A lump of bronze is actually a lump of bronze, but it is potentially a statue. The two exceptions to the rule of potentiality and actuality are pure matter in Aristotle's sense, and his unmoved mover, whom Christians later identified with God. Sheer matter without form of any kind is pure potentiality, capable of becoming anything, as matter was at the moment of the Big Bang. If there is pure potentiality, Aristotle thought, there must logically be pure actuality, a being whose potentiality is used up, incapable of further change, perfected; this is the unmoved mover. Because it has no potentiality, the unmoved mover cannot change. Because the unmoved mover is perfect, fully actualized, other things naturally move toward it, as their potentiality becomes actuality. The unmoved mover moves by being desired, not through activity of its own, the way a beloved moves a lover by inspiring desire, as in Plato's Ladder of Love; for Aristotle, love literally made the world go round. The more fully actualized a thing is, the nearer it is to the unmoved mover. The striving for actualization creates a grand hierarchy among all things, from perfectly unformed, neutral matter in a state of pure potentiality up to the unmoved mover. Aristotle called this hierarchy the *natural scale*, but later it was called the *Great Chain of Being*.

The ideas of potentiality and actuality may be regarded as a creative solution to an important biological problem that was not fully solved until the structure of DNA was elucidated in 1953. Plant an acorn and it becomes an oak; plant a tomato seed and it becomes a tomato plant; fertilize a human ovum and it becomes a human being. Unlike the casting of a bronze statue, these changes are examples of spontaneous development. We don't force the acorn to become an oak the way we force bronze to become a statue. Moreover, biological development is directed to a predetermined end. Acorns never become tomato plants; tomato seeds never become oaks; and human mothers never give birth to bears.

Something apparently guides the acorn to naturally actualize its potential oak-hood. Today we know that what guides biological development is DNA. For Aristotle, however, it was form. The purpose, or final cause, of an acorn is to become an oak, and so the striving of an acorn toward oak-hood is an aspect of its form. Plato's Forms were perfect Objects in the realm of Being. Aristotle's forms, at least in the biological world, are dynamic, directing development and constituting and controlling the life processes of living things.

Psychology

Soul and Body. For Aristotle, psychology was the study of the soul—that which differentiates the animate from the inanimate worlds. Aristotle defines the soul as “the form of a natural body having life potentially within it” (*On the Soul*, II, i, 412a20–1). All living things possess soul as their form, and thus it is a living thing’s soul that defines its nature, what it is to be that living thing. Soul is the actuality and the actualizing, directing force of any living organism, fulfilling the body’s potential *having of life*.

As the form of a living thing, soul is thus the essential, efficient, and final cause of an organism. As essential cause, the soul is what defines an animal or plant—a cat is a cat because it has a cat’s soul and behaves like a cat. The soul is the efficient cause of bodily growth and movement and of life processes generally. Without soul, the body is not actualized and is dead, mere matter. The soul is also the final cause of an organism, for the body serves the soul and the soul guides its purposive development and activity. To summarize, of any living organism, the material cause is the body of which the living thing is made, and the soul is the form, being the efficient cause of life processes, being the animal’s essence, and being the organism’s final cause, the purpose of the body.

Aristotle’s view of the relation of soul to body is different from Plato’s. As he rejected the separability of the forms, Aristotle rejected the separability of soul and body, the dualism of Plato, the Pythagoreans, Descartes, and of many religions. The form of a statue is not a separate thing added to bronze to make it a statue. Similarly, as the form of the body, the soul is not a separate thing added to the body. An organism is a unity. Without soul, the body is dead; without body, there is no soul. Aristotle put it this way in *On the Soul*, “That is why we can wholly dismiss as unnecessary the question whether the soul and the body are one: it is as meaningless to ask whether the wax and the shape given to it by the stamp are one” (II, i, 412b6–9).

Aristotle evades the ways of thinking about mind and body ushered in by Descartes (see chapter 4). He is not a dualist with Plato, Christianity, or Descartes, because Aristotle’s soul is not a separate thing made of something other than matter, a thing that may therefore exist without a body. Neither is he the dualist’s modern nemesis, a materialist, denying with the atomists the existence of soul altogether, because without a soul a body has no life and no purpose. For Aristotle, the soul is the set of capacities of a living body. Just as seeing is the capacity of the eye, soul is the capacity of the body to act (Sorabji, 1974/1993). Without an eye, there is no seeing; without a body, there is no action, no soul.

All living things have soul, but there are different forms of living things, possessing, therefore, different forms of soul. Specifically, Aristotle distinguished three levels of soul appropriate to different levels of actualization on his natural scale. At the lowest level there is the *nutritive soul*, possessed by plants, serving three functions: (1) maintaining the individual plant through nutrition, (2) maintaining the species through reproduction, and (3) directing growth. Animals possess a more complex, *sensitive soul*, which subsumes the nutritive soul’s functions while adding others, making it more fully actualized than the nutritive soul. Animals, unlike plants, are aware of their surroundings. They have sensations; hence, “sensitive soul.” As a consequence of sensation, animals experience pleasure and pain and so feel desire either to seek pleasure or to avoid pain. There are two further consequences of sensation: first, imagination and memory (since experience can be imagined or recalled); and second, movement as a consequence of desire. Highest in the scale of souls comes the human or, *rational, soul*, subsuming the others and adding *mind*, the power to think and have general knowledge.

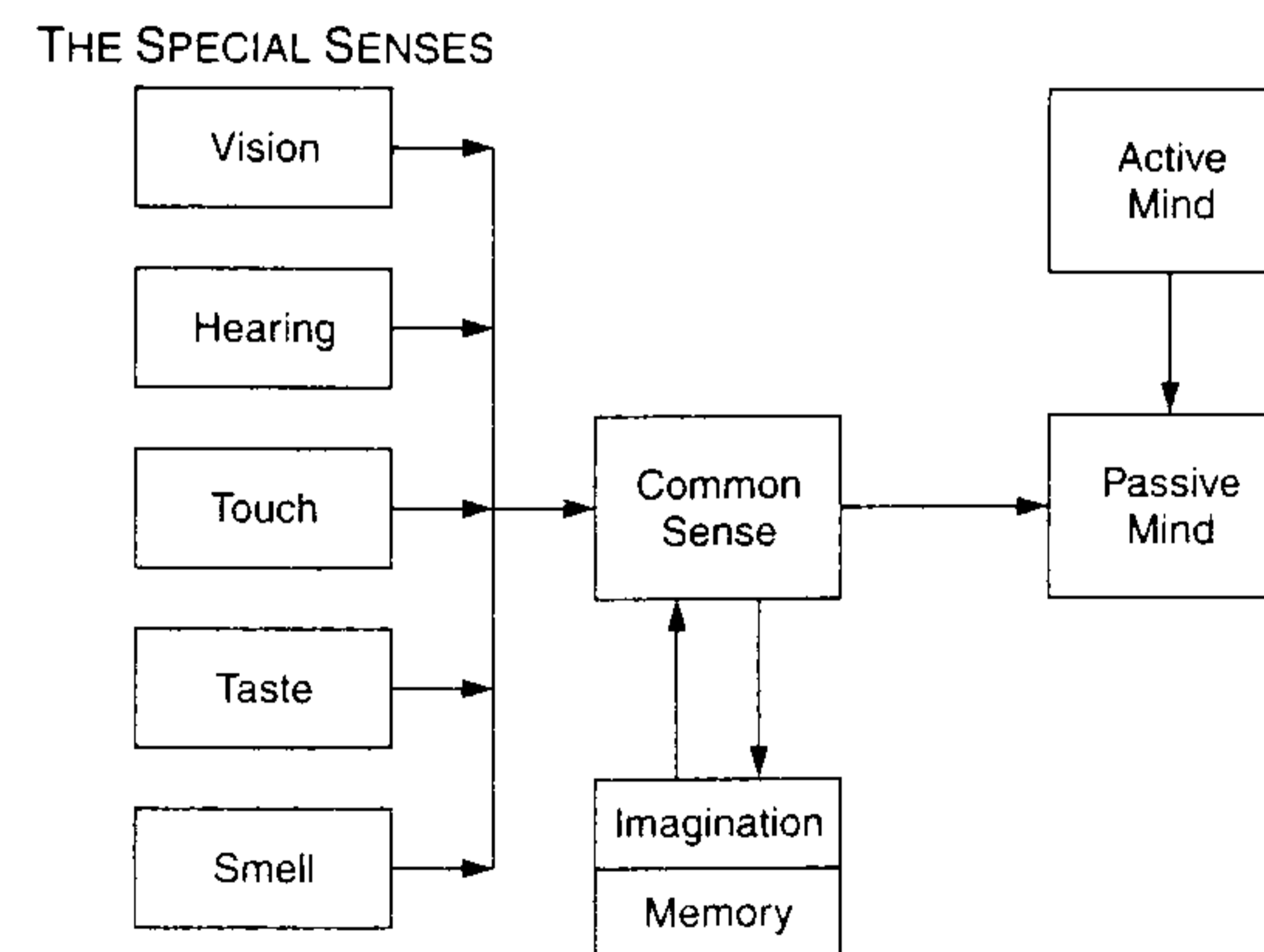
Structure and Functions of the Rational, Human Soul. According to Aristotle, gaining knowledge is a psychological process that starts with the perception of particular objects and ends with general knowledge of universals, of forms. Aristotle’s analysis of the soul can be represented by a diagram showing the faculties of the soul and their inter-relationships (Figure 2-2). In many respects, Aristotle’s analysis of the sensitive and rational soul resembles that given by modern cognitive psychologists, and I have anachronistically depicted Aristotle’s theory as an information processing flowchart of the type made familiar by cognitive psychology.

Sense Perception. Aristotle writes, “Generally, about all perception we can say that a sense is what has the power of receiving into itself the sensible forms of things without the matter, in the way in which a piece of wax takes on the impress of a signet ring without the iron or gold” (*On the Soul*, 424a 18–20). That is, if I look at a bronze statue, my eye receives the form of the statue without receiving its matter, the bronze. *Perception*—the starting point of knowledge—has to do with form, not matter.

The Special Senses. The first stage in perception is the reception of aspects of an object’s form by the *special senses*. Each special sense is dedicated to reception of a particular kind of information about objects, which is why these senses are called “special”; a better translation might be “specialized.” Aristotle regarded the special senses as passive, simply conforming themselves to the forms of objects, and therefore reliable and unerring.

Plato, as we have seen, was a *metaphysical realist*. Aristotle was a *perceptual realist*. He rejected the Forms, but taught that in perception our minds receive the form of an object without the matter. Each of the *special sensibles*—the particular perceptual features of an object—are simply picked up in the act of perception. Thus, if we see a green sweater, we see it as green because it really is green. In the example of color, Aristotle thought that the eye-jelly takes on the color of an object, thus registering it in the mind. The whole object of perception, however, was what Aristotle called a *common sensible*, and identifying it required an act of judgment. For example, you might see someone you take to be an old friend across the street, only to discover he or she is someone else. You

FIGURE 2-2 The structure of the human (sensitive and rational) soul according to Aristotle.



correctly perceived the person's hair color, build, and so on, but came to an incorrect conclusion about his or her identity. Aristotle's perceptual theory allows for cognitive error, but connects the mind directly with the world.

The Interior Senses. The information provided by the special senses is passed on to faculties that deal with it in various ways. In the animal soul, these faculties are called the *interior senses* because they are not connected with the outside world, but still are dealing with experienced sensations.

The first interior sense is *common sense*. Common sense is an important faculty, being Aristotle's answer to one of the great mysteries of perception, the problem of *sensory integration*, or as it is known in cognitive neuroscience, the *binding problem*. Each special sense detects a specific kind of information about how an object looks, sounds, feels, tastes, or smells. The physical origin of each sense is quite distinct; for example, vision begins with light striking the retina; hearing with sound waves striking the eardrum. The neural path of each special sense into the brain is unique. Yet, the world as we experience it is not a jumble of disconnected sensations. We hear sounds coming from objects we see, and we expect objects to be touchable. We experience single objects—the common sensibles—with multiple facets, not a blooming, buzzing confusion of sense-impressions. Somehow, we integrate the information provided by the special senses by binding together their separate neural pathways into a single mental representation of objects.

Aristotle said the job was done by common sense (Bynum, 1987/1993). It is the place—Aristotle located it in the heart—where the special senses are brought together and coordinated into a single, integrated picture of the world, where the sensations are held together in common. Common sense and the next faculty, *imagination*, are involved in judging what an object is. I see a red spot on a tree, but I must judge whether it is a drop of red paint or a ladybug. Thus, whereas the special sensations are infallible—there can be no doubt that I see a red spot—the judgments of common sense and imagination are fallible interpretations of special sensibles—I may wrongly think I'm seeing a ladybug.

We now know that Aristotle was right to draw a sharp distinction between sensing an object and judging what sort of object it is, because the two mental processes are performed in different parts of the brain. For example, there is the syndrome of *prosopagnosia*, in which people with certain sorts of brain damage (Aristotle was wrong about the heart) lose the ability to see faces. They see the stimuli that correspond to eyes, noses, mouths, and so on, but they do not integrate them into the perception of a face, even a familiar face, as in the well-known case of the man who mistook his wife for a hat rack (Sacks, 1985).

The coherent images of objects assembled by common sense are passed on in two directions: to imagination and memory in animals and human beings and, in human beings alone, to mind. The basic function assigned to imagination by Aristotle is the ability to represent the form of an object in its absence, whether just after it has been presented to common sense, or later, after retrieval from memory. Imagination, however, is assigned other functions (Bynum, 1987/1993) that were later separated into distinct faculties by medieval physician-philosophers. As already mentioned, imagination is involved in judging what an object is—that is, in inferring from sensation what object is affecting our senses. In addition to this purely cognitive function, imagination is involved in feeling pleasure and pain and in judging whether a perceived object is good or bad for an organism, thereby causing a behavioral response. Thus, a cat sees a mouse and judges that the mouse is good for it, and so it chases the mouse. The mouse, seeing the cat, judges that it is bad for it and runs away.

The final faculty of the sensitive, or animal, soul is *memory*. Aristotle conceived of memory as a storehouse of the images created by common sense and imagination. It is thus the record of an animal's life, available to be recalled by imagination. Whereas Plato tended to treat memory as reminiscence of absolute truth from the soul's passage through the heavens between incarnations, Aristotle treats it in a more modern way of recall of previous experiences in our earthly lives (Barash, 1997). Aristotle's memory corresponds to what modern cognitive psychologists call *episodic*, or personal, memory—the ability to recall specific events, or episodes, in one's life. The organization of memory is based on *association*, as described in many modern psychological theories. Plato hinted at the concept of the association of ideas in his proposal that, by their resemblance to the innate Forms, perceived objects lead to knowledge. Aristotle, however, discussed the processes of association more fully. Aristotle discussed three laws of association—*similarity*, *contiguity*, and *contrast*. Similar images are associatively linked, images of contiguous experiences are linked, and opposite images are linked (that is, "hot" usually elicits the association "cold"). He also hinted at the law of *causality*—causally linked experiences remind us of one another.

Cognitive scientists distinguish *episodic* memory from *semantic* memory, the ability to recall the definitions of words. Sometimes, semantic memory is called simply "knowledge" because it concerns general ideas (*universals*), not specific events or things (*particulars*). Aristotle, too, separated memory from knowledge, acquisition of the latter being the function of the uniquely human part of the soul, mind, or *nous*.

Mind. Aristotle called the rational part of the human soul the *mind*. It is unique to human beings and is capable of acquiring knowledge of abstract universals, as opposed to the knowledge of individual things given in perception. As we experience different members of the same natural type, we note similarities and differences, forming an impression of a universal, which Aristotle believed was always an image. As one experiences a multitude of cats, one eventually forms an idea of what the essence of a cat is, an image of a cat that contains only those perceptual features shared by all cats. To borrow Platonic imagery, my memory stores the remembered forms of our cats—Shadow, Theo, Thorkin, and Chessie—but my mind stores the universal concept of the Cat.

Within the mind there must be, as Aristotle believed there to be throughout nature, a difference between potentiality and actuality. The *passive mind* is potentiality. It has no character of its own, for it can take on the form of experienced objects. Knowledge of universals in the passive mind is actualized, or made manifest, by the operations of the active mind. The *active mind* is pure thought, acting on the contents of the passive mind to achieve rational knowledge of universals. This active mind is quite different from the other parts of the soul. As actuality, it is not acted on; rather, it acts on the contents of the passive mind. For Aristotle, this meant that the active mind was unchangeable—hence, immortal, for death is a form of change. The active mind is, therefore, separable from the body and may survive death, unlike the rest of the soul. However, the active mind is not a personal soul, for it is identical in all human beings. It is pure thought and carries nothing away from its sojourn on earth. Knowledge is realized only in the passive mind, which perishes. Active mind corresponds to the processes of abstract thought; passive mind to the contents (Wedin, 1986/1993). Later Neoplatonic, Christian, and Islamic thinkers, otherwise impressed by Aristotle's scientific treatment of the world and human life, had a very difficult time reconciling

Aristotle's naturalistic treatment of the soul with their radical dualism of soul and body (Adamson, 2001; see also chapters 3 and 4).

Motivation. Movement is characteristic of animals and thus is a function of the sensitive soul, which can experience pleasure and pain. All action is motivated by some form of desire, which Aristotle believed involved imagination. In animals, motivation is directed by an image of what is pleasurable, and the animal seeks only present pleasure or the avoidance of pain. Aristotle calls this type of motivation *appetite*. Human beings, however, are capable of reason and so can conceive of right and wrong. Therefore, we can be motivated by desire for what is good or for long-term, future benefits. This type of motivation is called *wish*. Animals experience simple motivational conflicts between opposing appetites, but humans have, in addition, the problem of moral choice.

Ethics

Aristotle erected his ethics squarely on his psychology. Just as there is a natural goal to the growth of an acorn—it ought to become a flourishing, big oak tree—so there is a natural, proper goal to human life—namely, human flourishing. Aristotle provided a philosophical basis for the Greek idea that there is only one best way of life, only one path to *eudaemonia*. Just as oak trees have an inherent nature that they naturally tend to fulfill when conditions are favorable, so human beings have a nature that we tend to fulfill when conditions are favorable. Because the human soul is in its essence rational, and therefore capable of virtue, so “human good turns out to be activity of the soul in accordance with virtue” (*Nicomachean Ethics*, 1098a20).

Because the conditions in which a tree or human lives are so important to human flourishing, Aristotle's ethics is at the same time political science (Lear, 1988). Aristotle's ethics cum political science attempt to erase the distinction between *phusis* and *nomos* that the Sophists had drawn so sharply thus returning to the standard Greek view that the two are ideally the same. Aristotle famously says that by nature (*phusis*) man is a social, or more precisely, political animal. The natural life for human beings is living in society, and human flourishing, *eudaemonia*, depends, therefore, on living in the right kind of ordered society (*nomos*).

However, the ideal state described by Aristotle, like Plato's Republic, would be rejected, by and large, by modern citizens of the West. As Plato had held, only the wise and virtuous should rule because only they can set aside personal interest and govern in the interest of the state as a whole. As we might agree, a monarchy might be a good state if the king is wise and benevolent, but a better state is one ruled by law rather than the temporary virtues of a mortal king. Therefore, Aristotle's ideal state is a sort of aristocratic democracy. The citizens of the state participate in ruling it, but most members of the state are not citizens. The citizens of Aristotle's utopia are not the cultivated Guardians of Plato's Republic, but men of independent means who do not work, and who therefore have no personal interests to corrupt their judgment and who have the time to devote to politics. “In the state which is best governed . . . the citizens must not lead the life of artisans or tradesmen, for such a life is ignoble and inimical to virtue. Neither must they be husbandmen [working farmers and ranchers as opposed to those who had slaves], since leisure is necessary both for the development of virtue and the performance of political duties” (*Politics*, VII.9, 1328b33-1329a2). In short, Aristotle's ideal society was the Athenian *polis* he knew.

THE HELLENISTIC (323–31 B.C.E.) AND ROMAN (31 B.C.E.–C.E. 476) WORLDS

The Social Context: Hellenism and Empire

Aristotle's pupil Alexander the Great changed the Western world. He sought to establish a universal empire that brought Greek culture to lands he conquered. He failed, but his vision was fulfilled by the more practical Romans, who knitted their empire together with common roads, a common language, and a common bureaucracy. The life of the small, democratic *polis* was destroyed, replaced by large transnational empires. Rootedness in a small, parochial community began to be replaced by more universal ideas of citizenship. A Roman Stoic once said that every Roman is a citizen of two cities: his place of birth and Rome—center of the known world.

The immediate consequence of Alexander's death, however, was a period of intense and disturbing social change known as the Hellenistic period, usually dated from his death to the final conquest of Egypt by Octavian, the future Emperor Augustus, in 31 B.C.E. Until the coming of the *pax Romana*, the eastern Mediterranean was in turmoil. Alexander's imperial center did not hold: his generals carved his hoped-for empire into personal kingdoms that they ruled like gods, and they and their heirs fought incessant wars with each other.

Having lost their beloved *polis*, and discovering that governments could be positively evil, Hellenistic men and women turned away from public life toward the pleasures of private life and home. Rejecting Homeric fame and classical Greek politics, a Stoic said what no older Greek could ever have, that nothing in life can “compare with the companionship of a man and wife” (quoted by Barnes, 1986, p. 373). From a social perspective, the great gainers of the Hellenistic era were women, as the idea of marriage as a contract to beget heirs was replaced by ideas of love and lifelong partnership. The Cynic Crates married for love and lived in full equality with his wife, Hipparchia, in what they called their “dog marriage.” Most surprising to traditionalist Greeks, they even went out to dinner together (Green, 1990)!

Psychologically, however, the uncertainties of the Hellenistic epoch were more disturbing. The traditional Greek fear of *Tyche* was strengthened by the travails of life under the warring kings. The leading dramatist of the era, Menander, wrote, “Stop going on about [human] intelligence. . . . It's fortune's intelligence that steers the world. . . . Human forethought is hot air, mere babble” (quoted by Green, 1990, p. 55). As Hellenes turned inward to their homes, they also turned inward to their souls, seeking succor from the misfortunes of the world. The more secular of them sought freedom from upset in philosophy, and the more religious, in traditional worship or in the exotic new religions that flowed from the East into the West. In between was the philosophical religion of Neoplatonism.

Therapeutic Philosophies of Happiness

In a disturbing world, people sought freedom from disturbance, a form of happiness Greeks called *ataraxia*. The Classical Greeks had sought the happiness of *eudaemonia*, human flourishing or living well. Hellenistic Greeks and the Romans who followed them lowered their sights and settled for *ataraxia*, a happiness that was within their own control. As we have learned, Greek *eudaemonia* depended on luck, including living in