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Introduction to

Philos-ophy

Introduction to Philosophy

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HARDCOVER BOOK ISBN-13	978-1-711470-79-5
B&W PAPERBACK BOOK ISBN-13	978-1-711470-78-8
DIGITAL VERSION ISBN-13	978-1-951693-59-6
ORIGINAL PUBLICATION YEAR	**2022**

1 2 3 4 5 6 7 8 9 10 RS 22

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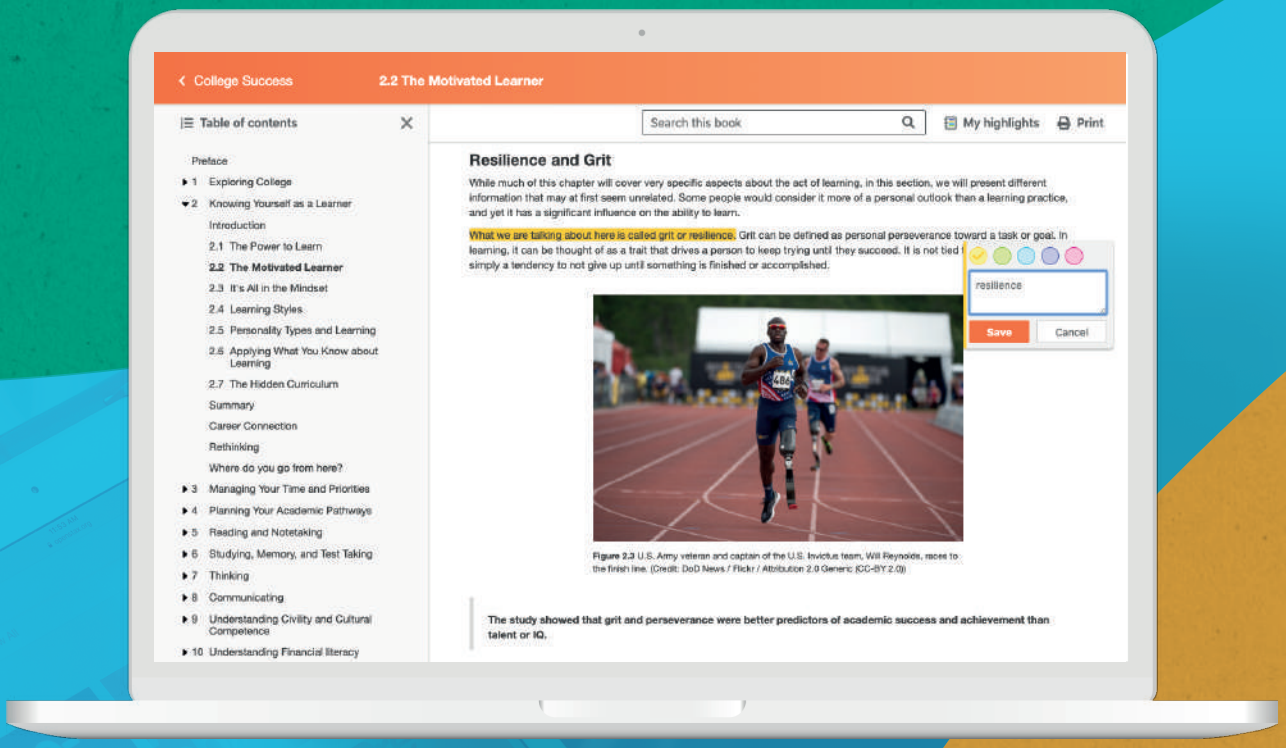

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Preface

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Format

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About *Introduction to Philosophy*

Introduction to Philosophy provides an overview of a common range of philosophical topics for a first- or second-year general education philosophy course. It is organized thematically, following the principal categories of academic philosophy (logic, metaphysics, epistemology, theories of value, and history of philosophy). A recurring theme of *Introduction to Philosophy* is its incorporation of multicultural and global perspectives. Texts, thinkers, and concepts from Middle Eastern, Indian, Chinese, Japanese, Latin American, Indigenous, and African philosophy are fully integrated into discussions of concepts and topics, broadening the study of philosophy beyond the Western tradition. Another goal of the text is to help students develop critical thinking, reading, and writing skills.

Reflecting the Full Diversity of Human Understanding

A multicultural and global perspective is a central organizing principle of *Introduction to Philosophy*. This text explores Eastern, African, and Indigenous perspectives in concert with and, in some cases, in juxtaposition to classical Western thinkers. Additionally, the authors have made a special effort to highlight the philosophical work of women, who have made important contributions to the history of philosophy in numerous traditions. This broader emphasis introduces students to approaches that open up traditional philosophical questions in provocative ways, offering fresh possibilities for social and individual understanding. As just one example, alongside discussion of the individualistic ways that Hume and Locke attempted to answer the question "what is the self" appears discussion of the African concept of *ubuntu*, sometimes translated as "a person is a person through other persons." Discussions of the four noble truths of Buddhism as a path to achieve liberation from suffering, the four interrelated concepts at the heart of Mohist ethical theory, and Carol Gilligan's care ethics are other examples of well-established answers to deep philosophical questions that provide fresh additions to classical Western ways of thinking.

Providing Students with Transferable Skills

Introduction to Philosophy is intentionally organized to develop critical thinking, research, reading, and writing skills. There is an entire chapter devoted to these transferrable skills associated with philosophy. Another chapter addresses logic and reasoning. Additionally, interspersed throughout the text are features providing guidance on how to read philosophy effectively, how to conduct research and evaluate sources, and how to write philosophy papers. These features aim to be very explicit about the habits and practices that enable one to be a good student of philosophy and, by extension, a good critical thinker.

Reminding Readers that Philosophy Is a Living Discipline

Calling attention to the fact that philosophy is not just a feature of our human past, *Introduction to Philosophy* discusses the ways contemporary academic philosophers address some of our most pressing ethical and moral issues. Examples include discussions of bioethics, emerging issues surrounding genetic engineering and communication technologies, what brain science can and cannot tell us about human consciousness, and morality pertaining to human treatment of the natural world. Through discussion of these topics and others, readers will gain awareness of the range of answers that contemporary philosophers offer to current issues and learn to appreciate the type of reasoning that philosophers use. Throughout the text, students are also encouraged to critically reflect on philosophical points of view and develop their own philosophical positions.

Enriching and Engaging Features

"Doing" Philosophy

While there is certainly not one method of "doing" philosophy, there are practices and habits that make someone a better reader, writer, researcher, and thinker in philosophy. A set of recurring features makes these skills explicit and concrete, with guidance geared toward the introductory student.

- **Think Like a Philosopher**. These features adopt one of two approaches. Some instances prompt students to engage with concepts key to philosophical argument, and thus to critical thinking, either in the form of interactive online exercises or as written guidance. Others guide students in formulating their own approaches to philosophical questions.
- **Write Like a Philosopher**. These features challenge the reader to articulate their own written responses to philosophical prompts or to craft their own philosophical arguments. Clear guidance is given on both the considerations that should appear in the response and the most effective structure for written philosophical discourse.
- **Read Like a Philosopher**. These features prompt students to engage with portions of key primary texts, such as Plato's *Apology* or the *Daodejing*. Clear structure is provided, guiding the reader on what elements of the text to pay close attention to and what questions they should hold in their minds while reading.

"How It All Hangs Together"

Philosophy is an inherently interconnected undertaking that speaks to universal human concerns. The broad questions philosophers ask (e.g., what makes a good life, how does one define morality, how should people treat one another, what rights should be accorded individuals within society) touch many aspects of our social and individual existences. A number of features address the interconnectedness of philosophical inquiry and philosophical thought, as well as its relevance to all lives.

- **Connections features**. Throughout the text, callouts direct students to additional coverage of both important theories and key thinkers in other chapters.
- **Videos**. Video features provide supplemental information from trusted contemporary sources, such as the BBC Radio 4 series *A History of Ideas* and the e-series *Wi-Phi Philosophy*.
- **Podcasts**. Podcast links are provided from engaging series, such as *The History of Philosophy without Any Gaps* and *Philosophy Bites*.

Pedagogical Framework

An effective pedagogical framework helps students structure their learning and retain information.

- **Chapter Outlines.** Each chapter opens with an outline and introduction, familiarizing students with the material that will follow. Throughout the chapter, material is chunked into manageable sections of content within each of the larger main heads.
- **Learning Objectives.** Every main section begins with two to five clear, concise, and measurable learning objectives, tagged to Bloom's levels. These objectives are designed to help the instructor decide what content to include or assign and to guide student expectations. After completing the textual sections and end-of-chapter exercises, students should be able to demonstrate mastery of the learning objectives.
- **Chapter Summaries.** Organized by section heads, chapter summaries distill the information presented in each chapter to key, concise points.
- **Key Terms.** Key terms are bolded and followed by in-text definitions. A glossary of key terms also appears at the end of each chapter.
- **Critical Thinking Questions.** Each chapter ends with 10 to 20 critical thinking questions, also organized by section head. Some of these questions assess recall of key concepts, while others ask students to think, read, and write like a philosopher. These more complex questions might prompt students to formulate thoughtful critiques of existing philosophical positions or to begin to articulate their own thoughts on philosophical questions. Any of these components can be used by instructors to build assessments and assignments for their courses.
- **"Further Reading" Suggestions.** Each chapter ends with suggested resources for students who wish to dive deeper into the thinkers and thoughts discussed in the chapters.

About the Authors

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Nathan Smith, Houston Community College

Nathan Smith has a PhD in philosophy from Boston College and the University of Paris, Sorbonne. His dissertation was on René Descartes's early scientific and mathematical work. He has been a full-time instructor of philosophy at Houston Community College (HCC) since 2008. He has published on Descartes, phenomenology, and topics in Open Educational Resources (OER), including chapter contributions to an OER textbook through the Rebus Foundation. At HCC, he served as Chair of the Philosophy, Humanities, and Library Sciences Department from 2015 to 2017 and has served as the Open Educational Resources Coordinator since 2017. In this capacity he has secured and managed over $500,000 in grants for the institution and leads a cross-disciplinary, district-wide effort to provide "zero cost books" courses and degree plans for students.

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Additional Resources

Student and Instructor Resources

We've compiled additional resources for both students and instructors, including an instructor's manual, test bank, and lecture slides. Instructor resources require a verified instructor account, which you can apply for when you log in or create your account on OpenStax.org. Take advantage of these resources to supplement *Introduction to Philosophy*.

- **Comprehensive Instructor's Manual.** Designed to provide maximum guidance for delivering content in an interesting and dynamic manner, each chapter of the instructor's manual includes an in-depth lecture outline, a key terms list, a set of "questions for further thought," and a list of recommended resources for further reading and exploration. Authored by Kyle Hirsh, *Community College of Aurora*.
- **Test Bank.** With 500 true/false and multiple-choice questions in our test bank, instructors can customize tests to support a variety of course objectives. The test bank is available in Word format. Authored by Steve Wyre, *American Public University*.
- **PowerPoint Lecture Slides.** The PowerPoint slides provide outlines, images, and an overview of chapter topics as a starting place for instructors to build their lectures. Authored by Gregory Browne, *Eastern Michigan University*.

Academic Integrity

Academic integrity builds trust, understanding, equity, and genuine learning. While students may encounter significant challenges in their courses and their lives, doing their own work and maintaining a high degree of authenticity will result in meaningful outcomes that will extend far beyond their college career. Faculty, administrators, resource providers, and students should work together to maintain a fair and positive experience.

We realize that students benefit when academic integrity ground rules are established early in the course. To that end, OpenStax has created an interactive to aid with academic integrity discussions in your course.

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At OpenStax we are also developing resources supporting authentic learning experiences and assessment. Please visit this book's page for updates. For an in-depth review of academic integrity strategies, we highly recommend visiting the International Center of Academic Integrity (ICAI) website at https://academicintegrity.org/.

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Introduction to Philosophy 1

FIGURE 1.1 Philosophy begins with dialogue—with friends, with yourself, with other philosophers, and with the past. (credit: "Conversations Time moves slowly when talking with old friends" by Sagar/Flickr, CC BY 2.0)

CHAPTER OUTLINE

INTRODUCTION For most college students, an Introduction to Philosophy course is their first encounter with the study of **philosophy**. Unlike most of your other courses, philosophy is not something usually covered in high school. Yet you are probably familiar with the term *philosophy* and may have some preconceived notion about what philosophy is and what philosophers do. Perhaps you have stayed up late at night talking with friends or family about topics like free will or the existence of God. Maybe you have a friend who always talks about big ideas or asks tough questions that sound like riddles. Perhaps you think of them as "philosophical"; you might be right.

In this chapter, we will provide a brief introduction to the field of philosophy as a historical and academic discipline. This first chapter should prepare you for your philosophy course and give you a better idea of what it means to be a philosopher. As with all introductions, this one is just a start. Your job is to explore more, think more, read more, and write more like a philosopher. Soon you may even find that you are doing philosophy.

1.1 What Is Philosophy?

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify sages (early philosophers) across historical traditions.
- Explain the connection between ancient philosophy and the origin of the sciences.
- Describe philosophy as a discipline that makes coherent sense of a whole.
- Summarize the broad and diverse origins of philosophy.

It is difficult to define philosophy. In fact, to do so is itself a philosophical activity, since philosophers are attempting to gain the broadest and most fundamental conception of the world as it exists. The world includes nature, consciousness, morality, beauty, and social organizations. So the content available for philosophy is both broad and deep. Because of its very nature, philosophy considers a range of subjects, and philosophers cannot automatically rule anything out. Whereas other disciplines allow for basic assumptions, philosophers cannot be bound by such assumptions. This open-endedness makes philosophy a somewhat awkward and confusing subject for students. There are no easy answers to the questions of what philosophy studies or how one does philosophy. Nevertheless, in this chapter, we can make some progress on these questions by (1) looking at past examples of philosophers, (2) considering one compelling definition of philosophy, and (3) looking at the way academic philosophers today actually practice philosophy.

Historical Origins of Philosophy

One way to begin to understand philosophy is to look at its history. The historical origins of philosophical thinking and exploration vary around the globe. The word *philosophy* derives from ancient Greek, in which the philosopher is a lover or pursuer (*philia*) of wisdom (*sophia*). But the earliest Greek philosophers were not known as philosophers; they were simply known as **sages**. The sage tradition provides an early glimpse of philosophical thought in action. Sages are sometimes associated with mathematical and scientific discoveries and at other times with their political impact. What unites these figures is that they demonstrate a willingness to be skeptical of traditions, a curiosity about the natural world and our place in it, and a commitment to applying reason to understand nature, human nature, and society better. The overview of the sage tradition that follows will give you a taste of philosophy's broad ambitions as well as its focus on complex relations between different areas of human knowledge. There are some examples of women who made contributions to philosophy and the sage tradition in Greece, India, and China, but these were patriarchal societies that did not provide many opportunities for women to participate in philosophical and political discussions.

The Sages of India, China, Africa, and Greece

In classical Indian philosophy and religion, sages play a central role in both religious mythology and in the practice of passing down teaching and instruction through generations. The Seven Sages, or Saptarishi (seven rishis in the Sanskrit language), play an important role in ***sanatana dharma***, the eternal duties that have come to be identified with Hinduism but that predate the establishment of the religion. The Seven Sages are partially considered wise men and are said to be the authors of the ancient Indian texts known as the Vedas. But they are partly mythic figures as well, who are said to have descended from the gods and whose reincarnation marks the passing of each age of Manu (age of man or epoch of humanity). The rishis tended to live monastic lives, and together they are thought of as the spiritual and practical forerunners of Indian gurus or teachers, even up to today. They derive their wisdom, in part, from spiritual forces, but also from *tapas*, or the meditative, ascetic, and spiritual practices they perform to gain control over their bodies and minds. The stories of the rishis are part of the teachings that constitute spiritual and philosophical practice in contemporary Hinduism.

Figure 1.2 depicts a scene from the Matsya Purana, where Manu, the first man whose succession marks the prehistorical ages of Earth, sits with the Seven Sages in a boat to protect them from a mythic flood that is said to have submerged the world. The king of serpents guides the boat, which is said to have also contained seeds,

plants, and animals saved by Manu from the flood.

FIGURE 1.2 This painting, from the late eighteenth century, depicts the first man, Manu, guiding seven sages through floodwaters, with the aid of the king of serpents. (credit: "Manu and Saptarishi" by unknown author/ Wikimedia Commons, Public Domain)

Despite the fact that classical Indian culture is patriarchal, women figures play an important role in the earliest writings of the Vedic tradition (the classical Indian religious and philosophical tradition). These women figures are partly connected to the Indian conception of the fundamental forces of nature—energy, ability, strength, effort, and power—as feminine. This aspect of God was thought to be present at the creation of the world. The Rig Veda, the oldest Vedic writings, contains hymns that tell the story of Ghosha, a daughter of Rishi Kakshivan, who had a debilitating skin condition (probably leprosy) but devoted herself to spiritual practices to learn how to heal herself and eventually marry. Another woman, Maitreyi, is said to have married the Rishi Yajnavalkya (himself a god who was cast into mortality by a rival) for the purpose of continuing her spiritual training. She was a devoted ascetic and is said to have composed 10 of the hymns in the Rig Veda. Additionally, there is a famous dialogue between Maitreyi and Yajnavalkya in the Upanishads (another early, foundational collection of texts in the Vedic tradition) about attachment to material possessions, which cannot give a person happiness, and the achievement of ultimate bliss through knowledge of the Absolute (God).

Another woman sage named Gargi also participates in a celebrated dialogue with Yajnavalkya on natural philosophy and the fundamental elements and forces of the universe. Gargi is characterized as one of the most knowledgeable sages on the topic, though she ultimately concedes that Yajnavalkya has greater knowledge. In these brief episodes, these ancient Indian texts record instances of key women who attained a level of enlightenment and learning similar to their male counterparts. Unfortunately, this early equality between the sexes did not last. Over time Indian culture became more patriarchal, confining women to a dependent and subservient role. Perhaps the most dramatic and cruel example of the effects of Indian patriarchy was the ritual practice of *sati*, in which a widow would sometimes immolate herself, partly in recognition of the "fact" that following the death of her husband, her current life on Earth served no further purpose (Rout 2016). Neither a widow's in-laws nor society recognized her value.

In similar fashion to the Indian tradition, the sage (*sheng*) tradition is important for Chinese philosophy. Confucius, one of the greatest Chinese writers, often refers to ancient sages, emphasizing their importance for their discovery of technical skills essential to human civilization, for their role as rulers and wise leaders, and for their wisdom. This emphasis is in alignment with the Confucian appeal to a well-ordered state under the guidance of a "philosopher-king." This point of view can be seen in early sage figures identified by one of the greatest classical authors in the Chinese tradition, as the "Nest Builder" and "Fire Maker" or, in another case, the "Flood Controller." These names identify wise individuals with early technological discoveries. *The Book of Changes*, a classical Chinese text, identifies the Five (mythic) Emperors as sages, including Yao and Shun, who are said to have built canoes and oars, attached carts to oxen, built double gates for defense, and fashioned bows and arrows (Cheng 1983). Emperor Shun is also said to have ruled during the time of a great flood, when all of China was submerged. Yü is credited with having saved civilization by building canals and dams.

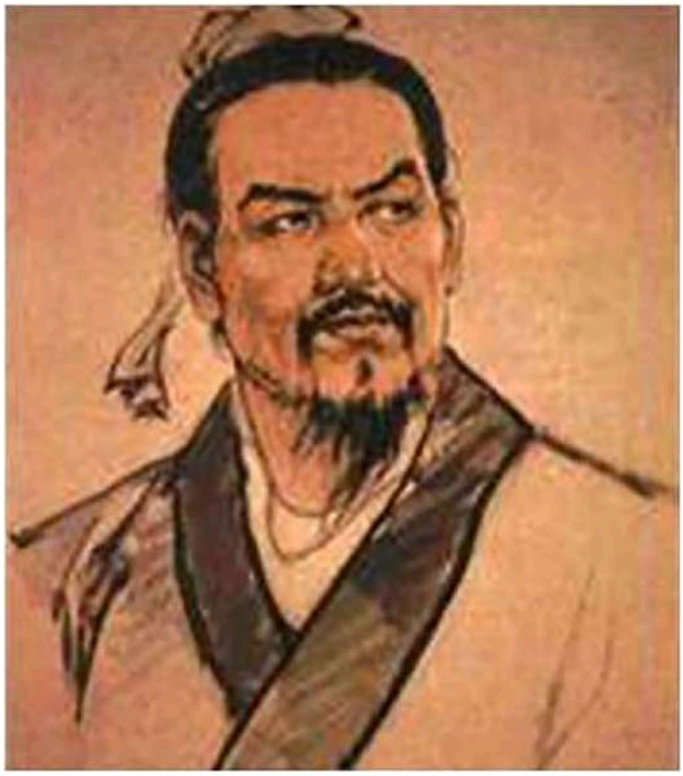

FIGURE 1.3 The Chinese philosopher and historian Han Feizi identified sages with technological discoveries. (credit: "Portrait of Han Fei" by unknown author/Wikimedia Commons, Public Domain)

These figures are praised not only for their political wisdom and long rule, but also for their filial piety and devotion to work. For instance, Mencius, a Confucian philosopher, relates a story of Shun's care for his blind father and wicked stepmother, while Yü is praised for his selfless devotion to work. In these ways, the Chinese philosophical traditions, such as Confucianism and Mohism, associate key values of their philosophical enterprises with the great sages of their history. Whether the sages were, in fact, actual people or, as many scholars have concluded, mythical forebearers, they possessed the essential human virtue of listening and responding to divine voices. This attribute can be inferred from the Chinese script for *sheng*, which bears the symbol of an ear as a prominent feature. So the sage is one who listens to insight from the heavens and then is capable of sharing that wisdom or acting upon it to the benefit of his society (Cheng 1983). This idea is similar to one found in the Indian tradition, where the most important texts, the Vedas, are known as *shruti*, or works that were heard through divine revelation and only later written down.

Although Confucianism is a venerable world philosophy, it is also highly patriarchal and resulted in the widespread subordination of women. The position of women in China began to change only after the Communist Revolution (1945–1952). While some accounts of Confucianism characterize men and women as

emblematic of two opposing forces in the natural world, the Yin and Yang, this view of the sexes developed over time and was not consistently applied. Chinese women did see a measure of independence and freedom with the influence of Buddhism and Daoism, each of which had a more liberal view of the role of women (Adler 2006).

A detailed and important study of the sage tradition in Africa is provided by Henry Odera Oruka (1990), who makes the case that prominent folk sages in African tribal history developed complex philosophical ideas. Oruka interviewed tribal Africans identified by their communities as sages, and he recorded their sayings and ideas, confining himself to those sayings that demonstrated "a rational method of inquiry into the real nature of things" (Oruka 1990, 150). He recognized a tension in what made these sages philosophically interesting: they articulated the received wisdom of their tradition and culture while at the same time maintaining a critical distance from that culture, seeking a rational justification for the beliefs held by the culture.

CONNECTIONS

The chapter on the early history of philosophy covers this topic in greater detail.

FIGURE 1.4 Engraving of Greek historian Diogenes Laërtius from a 1688 edition of his *Lives and Opinions of Eminent Philosophers*. (credit: "Diogenes Laërtius, ancient Greek writer" by Unidentified engraver/Wikimedia Commons, Public Domain)

Among the ancient Greeks, it is common to identify seven sages. The best-known account is provided by Diogenes Laërtius, whose text *Lives and Opinions of Eminent Philosophers* is a canonical resource on early Greek philosophy. The first and most important sage is Thales of Miletus. Thales traveled to Egypt to study with the Egyptian priests, where he became one of the first Greeks to learn astronomy. He is known for bringing back to Greece knowledge of the calendar, dividing the year into 365 days, tracking the progress of the sun from solstice to solstice, and—somewhat dramatically—predicting a solar eclipse in 585 BCE. The eclipse occurred on the day of a battle between the Medes and Lydians. It is possible that Thales used knowledge of Babylonian astronomical records to guess the year and location of the eclipse. This mathematical and astronomical feat is one of Thales's several claims to sagacity. In addition, he is said to have calculated the

height of the pyramids using the basic geometry of similar triangles and measuring shadows at a certain time of day. He is also reported to have predicted a particularly good year for olives: he bought up all the olive presses and then made a fortune selling those presses to farmers wanting to turn their olives into oil. Together, these scientific and technical achievements suggest that at least part of Thales's wisdom can be attributed to a very practical, scientific, and mathematical knowledge of the natural world. If that were all Thales was known for, he might be called the first scientist or engineer. But he also made more basic claims about the nature and composition of the universe; for instance, he claimed that all matter was fundamentally made of up water. He also argued that everything that moved on its own possessed a soul and that the soul itself was immortal. These claims demonstrate a concern about the fundamental nature of reality.

Another of the seven sages was Solon, a famed political leader. He introduced the "Law of Release" to Athens, which cancelled all personal debts and freed indentured servants, or "debt-slaves" who had been consigned to service based on a personal debt they were unable to repay. In addition, he established a constitutional government in Athens with a representative body, a procedure for taxation, and a series of economic reforms. He was widely admired as a political leader but voluntarily stepped down so that he would not become a tyrant. He was finally forced to flee Athens when he was unable to persuade the members of the Assembly (the ruling body) to resist the rising tyranny of one of his relatives, Pisistratus. When he arrived in exile, he was reportedly asked whom he considered to be happy, to which he replied, "One ought to count no man happy until he is dead." Aristotle interpreted this statement to mean that happiness was not a momentary experience, but a quality reflective of someone's entire life.

Beginnings of Natural Philosophy

The sage tradition is a largely prehistoric tradition that provides a narrative about how intellect, wisdom, piety, and virtue led to the innovations central to flourishing of ancient civilizations. Particularly in Greece, the sage tradition blends into a period of natural philosophy, where ancient scientists or philosophers try to explain nature using rational methods. Several of the early Greek schools of philosophy were centered on their respective views of nature. Followers of Thales, known as the **Milesians**, were particularly interested in the underlying causes of natural change. Why does water turn to ice? What happens when winter passes into spring? Why does it seem like the stars and planets orbit Earth in predictable patterns? From Aristotle we know that Thales thought there was a difference between material elements that participate in change and elements that contain their own source of motion. This early use of the term *element* did not have the same meaning as the scientific meaning of the word today in a field like chemistry. But Thales thought material elements bear some fundamental connection to water in that they have the capacity to move and alter their state. By contrast, other elements had their own internal source of motion, of which he cites the magnet and amber (which exhibits forces of static electricity when rubbed against other materials). He said that these elements have "soul." This notion of soul, as a principle of internal motion, was influential across ancient and medieval natural philosophy. In fact, the English language words *animal* and *animation* are derived from the Latin word for soul (*anima*).

Similarly, early thinkers like Xenophanes began to formulate explanations for natural phenomena. For instance, he explained rainbows, the sun, the moon, and St. Elmo's fire (luminous, electrical discharges) as apparitions of the clouds. This form of explanation, describing some apparent phenomenon as the result of an underlying mechanism, is paradigmatic of scientific explanation even today. Parmenides, the founder of the Eleatic school of philosophy, used logic to conclude that whatever fundamentally exists must be unchanging because if it ever did change, then at least some aspect of it would cease to exist. But that would imply that what exists could not exist—which seems to defy logic. Parmenides is not saying that there is no change, but that the changes we observe are a kind of illusion. Indeed, this point of view was highly influential, not only for Plato and Aristotle, but also for the early atomists, like Democritus, who held that all perceived qualities are merely human conventions. Underlying all these appearances, Democritus reasoned, are only atomic, unchanging bits of matter flowing through a void. While this ancient Greek view of atoms is quite different from the modern model of atoms, the very idea that every observable phenomenon has a basis in underlying

pieces of matter in various configurations clearly connects modern science to the earliest Greek philosophers.

Along these lines, the Pythagoreans provide a very interesting example of a community of philosophers engaged in understanding the natural world and how best to live in it. You may be familiar with Pythagoras from his Pythagorean theorem, a key principle in geometry establishing a relationship between the sides of a right-angled triangle. Specifically, the square formed by the hypotenuse (the side opposite the right angle) is equal to the sum of the two squares formed by the remaining two sides. In the figure below, the area of the square formed by c is equal to the sum of the areas of the squares formed by a and b. The figure represents how Pythagoras would have conceptualized the theorem.

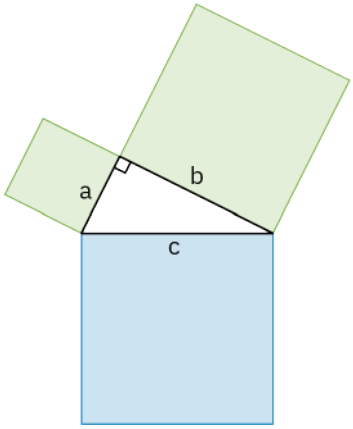

FIGURE 1.5 The Pythagorean Theorem describes the relationship between the sides of a right-angled triangle as demonstrated by the ancient Greek philosopher, Pythagoras. (credit: modification of "Pythagorean right angle" by Marianov/Wikimedia Commons, CC0)

The Pythagoreans were excellent mathematicians, but they were more interested in how mathematics explained the natural world. In particular, Pythagoras recognized relationships between line segments and shapes, such as the Pythagorean theorem describes, but also between numbers and sounds, by virtue of harmonics and the intervals between notes. Similar regularities can be found in astronomy. As a result, Pythagoras reasoned that all of nature is generated according to mathematical regularities. This view led the Pythagoreans to believe that there was a unified, rational structure to the universe, that the planets and stars exhibit harmonic properties and may even produce music, that musical tones and harmonies could have healing powers, that the soul is immortal and continuously reincarnated, and that animals possess souls that ought to be respected and valued. As a result, the Pythagorean community was defined by serious scholarship as well as strict rules about diet, clothing, and behavior.

Additionally, in the early Pythagorean communities, it was possible for women to participate and contribute to philosophical thought and discovery. Pythagoras himself was said to have been inspired to study philosophy by the Delphic priestess Themistoclea. His wife Theano is credited with contributing to important discoveries in the realms of numbers and optics. She is said to have written a treatise, *On Piety*, which further applies Pythagorean philosophy to various aspects of practical life (Waithe 1987). Myia, the daughter of this illustrious couple, was also an active and productive part of the community. At least one of her letters has survived in which she discusses the application of Pythagorean philosophy to motherhood. The Pythagorean school is an example of how early philosophical and scientific thinking combines with religious, cultural, and ethical beliefs and practices to embrace many different aspects of life.

How It All Hangs Together

Closer to the present day, in 1962, Wilfrid Sellars, a highly influential 20th-century American philosopher, wrote a chapter called “Philosophy and the Scientific Image of Man” in *Frontiers of Science and Philosophy*. He opens the essay with a dramatic and concise description of philosophy: “The aim of philosophy, abstractly formulated, is to understand how things in the broadest possible sense of the term hang together in the

broadest possible sense of the term." If we spend some time trying to understand what Sellars means by this definition, we will be in a better position to understand the academic discipline of philosophy. First, Sellars emphasizes that philosophy's goal is to understand a very wide range of topics—in fact, the widest possible range. That is to say, philosophers are committed to understanding everything insofar as it can be understood. This is important because it means that, on principle, philosophers cannot rule out any topic of study. However, for a philosopher not every topic of study deserves equal attention. Some things, like conspiracy theories or paranoid delusions, are not worth studying because they are not real. It may be worth understanding why some people are prone to paranoid delusions or conspiratorial thinking, but the content of these ideas is not worth investigating. Other things may be factually true, such as the daily change in number of the grains of sand on a particular stretch of beach, but they are not worth studying because knowing that information will not teach us about how things hang together. So a philosopher chooses to study things that are informative and interesting—things that provide a better understanding of the world and our place in it.

To make judgments about which areas are interesting or worthy of study, philosophers need to cultivate a special skill. Sellars describes this philosophical skill as a kind of know-how (a practical, engaged type of knowledge, similar to riding a bike or learning to swim). Philosophical know-how, Sellars says, has to do with knowing your way around the world of concepts and being able to understand and think about how concepts connect, link up, support, and rely upon one another—in short, how things hang together. Knowing one's way around the world of concepts also involves knowing where to look to find interesting discoveries and which places to avoid, much like a good fisherman knows where to cast his line. Sellars acknowledges that other academics and scientists know their way around the concepts in their field of study much like philosophers do. The difference is that these other inquirers confine themselves to a specific field of study or a particular subject matter, while philosophers want to understand the whole. Sellars thinks that this philosophical skill is most clearly demonstrated when we try to understand the connection between the natural world as we experience it directly (the "manifest image") and the natural world as science explains it (the "scientific image"). He suggests that we gain an understanding of the nature of philosophy by trying to reconcile these two pictures of the world that most people understand independently.

READ LIKE A PHILOSOPHER

"Philosophy and the Scientific Image of Man"

This essay, "Philosophy and the Scientific Image of Man (https://openstax.org/r/psim)" by Wilfrid Sellars, has been republished several times and can be found online. Read through the essay with particular focus on the first section. Consider the following study questions:

- What is the difference between knowing how and knowing that? Are these concepts always distinct? What does it mean for philosophical knowledge to be a kind of know-how?
- What do you think Sellars means when he says that philosophers "have turned other special subject-matters to non-philosophers over the past 2500 years"?
- Sellars describes philosophy as "bringing a picture into focus," but he is also careful to recognize challenges with this metaphor as it relates to the body of human knowledge. What are those challenges? Why is it difficult to imagine all of human knowledge as a picture or image?
- What is the scientific image of man in the world? What is the manifest image of man in the world? How are they different? And why are these two images the primary images that need to be brought into focus so that philosophy may have an eye on the whole?

Unlike other subjects that have clearly defined subject matter boundaries and relatively clear methods of exploration and analysis, philosophy intentionally lacks clear boundaries or methods. For instance, your biology textbook will tell you that biology is the "science of life." The boundaries of biology are fairly clear: it is an experimental science that studies living things and the associated material necessary for life. Similarly,

biology has relatively well-defined methods. Biologists, like other experimental scientists, broadly follow something called the "scientific method." This is a bit of a misnomer, unfortunately, because there is no single method that all the experimental sciences follow. Nevertheless, biologists have a range of methods and practices, including observation, experimentation, and theory comparison and analysis, that are fairly well established and well known among practitioners. Philosophy doesn't have such easy prescriptions—and for good reason. Philosophers are interested in gaining the broadest possible understanding of things, whether that be nature, what is possible, morals, aesthetics, political organizations, or any other field or concept.

1.2 How Do Philosophers Arrive at Truth?

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify philosophical methods of inquiry.
- Explain the role of logical consequences in assessing a philosophical position.
- Define conceptual analysis, coherence, argument, intuition, and experimental philosophy.
- Explain the importance of trade-offs in establishing a philosophical position.

We have seen some examples of how philosophy emerged in antiquity, its relationship to natural philosophy and modern science, and one goal of philosophy, specifically—to provide a coherent story of how the world as it appears to us can be explained in a way that also makes sense of what the sciences tells us. In this section, we describe in greater detail the specific strategies and tools that philosophers use to arrive at truth.

Sources of Evidence

Even though philosophy is not an empirical science, philosophical claims require evidence, and philosophers ought to have reasons for the claims they make. There are many different types of philosophical evidence, some of which follow.

History

A basic but underappreciated source of evidence in philosophy is the history of philosophy. As we have already seen, philosophical thinking has its origins around the world, from the beginning of recorded history. Historical philosophers, sages, natural philosophers, and religious thinkers are often a source of insight, inspiration, and argument that can help us understand contemporary philosophical questions. For instance, the Greeks recognized early on that there is a difference between the way we use language to talk about things, with generic terms that apply to many different things at the same time (like cat, tree, or house), and the things as they actually exist—namely, as specific, individual beings or objects. Philosophers ask, what is the relationship between the general terms we use and the specific things that exist in the world? This sort of question is a perennial philosophical question. Today's philosophers have their own response to this sort of question, and their answers often respond to and are informed by the historical treatment of these issues.

FIGURE 1.6 European philosopher Jean-Jacques Rousseau influenced the framing of the United States Constitution. (credit: "Jean Jacques Rousseau. Né en Genêve en 1708 (https://openstax.org/r/digitalcollections)" by Maurice Quentin de La Tour/New York Public Library)

While you may expect questions about the natural world to change over time (and certainly they have changed due to scientific progress), questions of morality and social organization do not change as much. What constitutes the good life? How should communities be organized to benefit all the members of that community? These sorts of questions stay with us throughout time. In the United States, it is common for political leaders to appeal to the "founding fathers" of the US Constitution. People like Thomas Jefferson, Benjamin Franklin, and George Washington were heavily influenced by early modern European philosophers like John Locke, Jean-Jacques Rousseau, and Thomas Hobbes. In similar fashion, the current Chinese leader, Xi Jinping, is fond of reading and citing the foundational philosopher Confucius. Most of Xi's addresses include quotations from Confucius, and Xi stresses the importance of reading classical Chinese philosophers (Zhang 2015). For Chinese political leaders, Confucius provides an important reminder of the role of virtue and a sense of belonging among the Chinese people. There is a widespread belief among the Chinese political class that their intellectual heritage is an important factor in their contemporary political success, in much the same way as American political leaders trace their success back to the founding fathers. Given the influence of philosophy on world history, it is worthwhile to engage with the writings of past philosophers to inform our understanding of pressing philosophical questions of today.

Intuition

One of the hallmarks of philosophical thinking is an appeal to **intuition**. What philosophers today mean by intuition can best be traced back to Plato, for whom intuition (*nous*) involved a kind of insight into the very nature of things. This notion has had religious connotations, as if the knowledge gained through intuition is like catching a glimpse of divine light. But intuition does not have to involve faith. René Descartes defined intuition in the following manner: "By intuition [I mean] . . . the conception of a clear and attentive mind, which is so easy and distinct that there can be no room for doubt about what we are understanding" (Descartes 1985, 14). This concept of intuition is clearest in mathematical examples. Importantly, it is quite different from the way that many people use the word *intuition* today to mean something like "gut feeling" or "hunch." When philosophers talk about intuition, they mean something much more definite. Consider the equation 2 + 2 = 4.

Examine the equation in your mind. Could it possibly be false? So long as we operate under the assumption that these numbers represent counting numbers, it seems impossible that this equation could be false. More than that, there is a kind of clarity and certainty about the equation. It is not just that you have learned 2 + 2 = 4 by habit. You could easily perform the counting operation in your head and verify that the answer is correct. The truth of this mathematical sentence is so clear that if it turned out to be wrong, you would have to give up core beliefs about the nature of numbers, addition, and equality. This kind of clarity is a paradigm of intuition.

Intuition operates in other realms besides mathematics, such as in the use of language. For instance, it is obvious that a three-legged stool has three legs or that the tallest building is taller than any other building. These statements are true in an obvious way that is similar to the mathematical sentence above. We can branch out further, to say, for instance, that a camel is a mammal. We might intuitively know this statement is true, but we may also recognize that we are on slightly less certain ground. After all, whether a camel is a mammal is based on some understanding of the anatomy of a camel as well as the biological classification system that assigns animals to different classes. So the definition of *camel* as "a mammal" is not the same as "a three-legged stool has three legs." Here, we can see that some statements are intuitively true by virtue of their definition. Others are intuitively true by virtue of some mental operation that we can perform very easily. Still others are intuitively true in that they rely on a body of knowledge that is commonly accepted and foundational for our understanding of the world.

There are many other places outside of pure linguistic analysis and mathematics where intuitions are helpful. Consider morality: the proposition that "it is better to be good than to be bad" may seem similar to the statement that "a three-legged stool has three legs," but the former introduces the words *good* and *bad*, which are fraught terms that produce disagreement among people. Nonetheless, while it may be difficult to agree on what constitutes "good" or "bad," everyone probably recognizes that whatever is good ought to be better than what is bad. That seems intuitively true. On this basis, we might imagine that there are intuitive truths even in morality. As we gain confidence in the ability of intuition to reveal truth, we might be tempted to extend intuitions even further. However, when intuitions extend into areas where there is no consensus on what is true, we have to be cautious. At that point, we might be using the term *intuition* to stand in for *belief* or *perspective*. Such "intuitions" do not have the same force as the intuition that 2 + 2 = 4. It is not always easy to distinguish between intuitions that are certain and evident and those that are mere feelings or hunches; recognizing that distinction is part of the practical know-how philosophers try to develop.

Common Sense

We ought not to neglect a third source of evidence in philosophy, namely, common sense. The idea of **common sense** is frequently used to describe a basic set of facts or common knowledge that any adult human being ought to possess. But common sense is rarely defined. When philosophers talk about common sense, they mean specific claims based on direct sense perception, which are true in a relatively fundamental sense. In other words, philosophical champions of common sense deny that one can be skeptical of certain basic claims of sense perception.

Famously, early-20th-century British philosopher G. E. Moore argued that a perfectly rigorous proof of the external world could be given by simply making the appropriate gesture toward his right hand and saying, "Here is one hand." So long as it is granted that the sensory perception of a hand is evidence of the existence of a hand and that there is such a thing as a hand in the external world, then it must be granted that there is an external world. Such an argument trades on the idea that knowledge of the existence of one's own hands is something that does not need further proof; it is something we can know without proof. This idea is not something that all philosophers accept, but it is, in many cases, an important source of evidence in philosophical inquiry. At a certain point, it may be necessary to stop demanding proofs for the things we can plainly see, such as the fact that this is a hand (as we hold a hand in front of our faces and examine it). Common sense may be questioned by further philosophical interrogation, but the common-sense philosopher may respond that such interrogation is either unnecessary, excessive, or misses the point.

Experimental Philosophy

Experimental philosophy is a relatively recent movement in philosophy by which philosophers engage in empirical methods of investigation, similar to those used by psychologists or cognitive scientists. The basic idea motivating experimental philosophy is that philosophers use terms and concepts that can be tested in a laboratory. For instance, when philosophers talk about free will, they frequently cite the idea that free will is necessary to assign moral responsibility; thus, moral responsibility is one reason to believe in the existence of free will. Consequently, you might wonder whether most people do, in fact, believe that the existence of free will is necessary to assign moral responsibility. This claim can be tested, for instance, by posing problems or scenarios to research subjects and asking them whether the absence of free choice removes moral responsibility. Similar strategies have been applied to causation, philosophy of biology, consciousness, personal identity, and so forth. In these areas, philosophers use experimental methods to find out what average people think about philosophical issues. Since common sense and intuition are already a source of evidence in philosophical reasoning, it makes sense to confirm that what philosophers ascribe to common sense or intuition aligns with what people generally think about these things.

Such experimental research is subject to many of the same issues that confront experimentation in the social sciences. These studies need to be replicable and ought to fall within a psychological or biological theory that helps explain them. When philosophers tread into experimental philosophy, they behave a lot more like scientists than philosophers, and they are held to the same rigorous standards as other researchers in similar experimental disciplines.

Results from Other Disciplines

The relevance of experimental methods for philosophy suggests a broader source of evidence for philosophical claims, namely, the results of scientific disciplines. When philosophers make claims about the natural world, they ought to be aware of what the natural sciences say. When philosophers make claims about human nature, they ought to be aware of what biology and the social sciences say. As we have already seen, there is an important difference between philosophical investigation and these various disciplines. Yet, given that philosophers attempt to gain some understanding of truth as a whole, they ought to welcome evidence from other disciplines that can help them better understand portions of that whole truth.

Table 1.1 summarizes these different types of philosophical evidence.

Type of Evidence	Description	Example
History	The insights of historical philosophers, sages, natural philosophers, and religious thinkers can help us understand contemporary philosophical questions.	The question “What is a good life?” is a perennial philosophical concern; attempts at answers from the past continue to have relevance for contemporary people.
Intuition	The philosophical meaning of intuition can best be traced back to Plato, for whom intuition involved a kind if insight into the very nature of things.	The truth of a mathematical sentence like “2+2=4” is so clear that if it turned out to be wrong, you would have to give up core beliefs about the nature of numbers, addition, and equality.

TABLE 1.1 Types of Philosophical Evidence

Type of Evidence	Description	Example
Common sense	When philosophers talk about common sense, they mean specific claims based on direct sense perception.	Someone who is holding their hand in front of their face can rightly claim "this is my hand" without having to resort to any further proofs.
Experimental philosophy	The basic idea motivating experimental philosophy is that philosophers use terms and concepts that can be tested in a laboratory.	A philosopher might pose scenarios to research subjects and ask them whether they believe an absence of free choice would remove moral responsibility in these scenarios, in order to test a philosophical claim about moral responsibility and free will.
Results from other disciplines	Evidence from other disciplines can help philosophers better understand portions of philosophical inquiries.	Information provided by other social scientists (e.g., sociologists, historians, anthropologists) can be used to inform philosophical claims about human nature.

TABLE 1.1 Types of Philosophical Evidence

Logic

One of the first and most reliable ways that philosophers have of verifying and analyzing claims is by using **logic**, which is, in some sense, the science of reasoning. Logic attempts to formalize the process that we use or ought to use when we provide reasons for some claims. By interpreting the claims we make using logic, we can assess whether those claims are well founded and consistent or whether they are poorly reasoned. The chapter on logic and reasoning will provide much more detail about the nature of logic and how it is used by philosophers to arrive at truth.

CONNECTIONS

The chapter on logic and reasoning covers this topic of logic in greater detail.

Argument

The first and most important move in logic is to recognize that claims are the product of **arguments**. In particular, a claim is just the conclusion of a series of sentences, where the preceding sentences (called premises) provide evidence for the conclusion. In logic, an argument is just a way of formalizing reasons to support a claim, where the claim is the conclusion and the reasons given are the premises. In normal conversation and even philosophical writing, arguments are rarely written so clearly that one can easily identify the premises and the conclusion. Nevertheless, it is possible to reconstruct any argument as a series of sentences with clearly identified premises and conclusions. This process is the first step in analyzing an argument: identify the claim that is being made, then identify the sentences that provide supporting evidence for the argument. This process will necessarily require some interpretation on the part of the reader. Therefore, it is important to try to remain faithful to the original intention of the argument and outline the premises and conclusions in such a way that they display the reasoning of the person making that claim.

Once the premises and conclusion are identified and written in order, it is possible to use formal techniques to evaluate the argument. Formal techniques will be covered in the chapter on logic and reasoning. For now, it is sufficient to note that there is a process for evaluating whether claims are well supported by using the techniques of logic. Poorly supported claims may be true, but without good reasons to accept those claims, a

person's support of them is irrational. In philosophy, we want to understand and evaluate the reasons for a claim. Just as a house that is built without a solid foundation will rapidly deteriorate and eventually fall, the philosopher who accepts claims without good reasons is likely to hold a system of beliefs that will crumble.

Explanation

While arguments can be thought of as building blocks to construct a solid foundation for beliefs about the world, arguments can also be understood as explanations for phenomena that are evident but not well understood. To generate well-founded beliefs, we start with evidence in the form of premises and infer a conclusion from that evidence. To explain observed phenomena, we start with a conclusion in the form of some observation and reason backward to the evidence that explains why the observation is true. For example, we infer that there is a fire based on the appearance of smoke, or we infer lightning when we hear thunder, even if we do not see the lightning. We can compare the way we reason about explanations to the way a detective might reconstruct a crime based on the evidence found at a crime scene. By reconstructing the premises that led to a given conclusion, a philosopher can explain the reasons for a conclusion that are evident through observation. In summary, logical reconstruction can be used to investigate the world around us, providing a rational explanation for why the world is the way it appears.

Coherence

Finally, logic provides philosophers with a powerful technique for assessing a set of claims or beliefs. We can ask whether a set of beliefs is logically consistent with one another. Given that we expect our beliefs to present to us a world that makes rational sense, we want those beliefs to be internally consistent. A set of beliefs or statements is **coherent**, or logically consistent, if it is possible for them to all be true at the same time. If it is not possible for statements or beliefs to be true at the same time, then they are contradictory. It seems unreasonable for a person to accept contradictory claims because a contradiction is a logical impossibility. If a person holds contradictory beliefs, then they must be wrong about at least some of their beliefs. Metaphorically, the house of beliefs in which they live must be poorly founded, at least in some places. When you are reading philosophy, you should be aware of places where the author says things that appear to be inconsistent. If you discover inconsistencies, that is a good indication that at least one of their claims is false. You may not know which claim is false, but you can know it is logically impossible for all claims to be true.

When faced with the possibility of incoherent beliefs, the philosopher will need to either revise those beliefs so that they become consistent, or they will need to give up some beliefs to preserve others. Logical consistency cannot tell us that a set of beliefs is true; a complete fiction might be logically consistent. But logical consistency can tell us what is not true. It is impossible for a logically inconsistent set of beliefs to be wholly true.

Conceptual Analysis

One of the techniques that philosophers use to clarify and understand philosophical statements (either premises or conclusions) is **conceptual analysis**. Conceptual analysis involves the analysis of concepts, notions, or ideas as they are presented in statements or sentences. The term *analysis* has been a part of philosophical terminology and methodology since its beginning. In its most basic sense, analysis refers to the process of breaking apart complex ideas into simpler ones. Analysis also involves a cluster of related strategies that philosophers use to discover truths. Each of these techniques attempts to arrive at a clearer and more workable definition of the concepts in question.

When students are asked to give a definition of some concept or term, they frequently go to a dictionary. But a dictionary provides only a description of how a concept is used in ordinary speech. A dictionary cannot tell us what the word means in a fundamental sense because dictionary definitions never ask whether that common usage is coherent, accurate, or precise. It is up to the person engaged in reflection on the concept to figure out what the term means and whether that meaning fits within a larger understanding of the world. The next section illustrates four methods of analysis.

Predicates

When philosophers today talk about concepts, they are usually referring to a notion that comes from the work on logic done by German philosopher Gottlob Frege. Frege demonstrated that any sentence in natural language could be translated into a formal, symbolic language, provided that we consider the sentence to be a kind of function that describes a relationship between names (or objects) and concepts. This symbolic language is what has become modern logic. Frege modeled his logic on mathematics, with the idea that he could eliminate the ambiguity and vagueness of natural language by translating it into a purely symbolic notation. Following Frege, we can break sentences into parts, including names, or object identifiers, and concepts, or predicates.

FIGURE 1.7 Young Gottlob Frege in about 1879. (credit: "Young Frege" by Unknown author/Wikimedia Commons, Public Domain)

Predicates are descriptive terms, like "yellow," "six feet tall," or "faster than a speeding bullet." Simple sentences like "the flower is yellow," or "Superman is faster than a speeding bullet" can be easily analyzed into object terms and predicates. But any sentence can be analyzed in multiple ways. And some sentences express multiple relations between predicates and objects. So the role of conceptual analysis is to identify the right predicates for analysis and to clarify the relationship between them. Predicates can help us clarify statements. For any sentence, we can ask, what is being predicated, and how is it being predicated?

Descriptions

While the concepts that describe or categorize objects can be analyzed using predicates, the objects themselves can be analyzed by using descriptions. Bertrand Russell identified definite descriptions as the way to analyze proper names or objects. His idea is that in a sentence like "the flower is yellow" or "my dog likes naps," the subject term—"flower" or "dog"—can be substituted with a descriptive sentence that uniquely identifies this particular flower or dog. There are unique characteristics that differentiate my dog from all others, for instance: my dog was born on a certain day, lives in a certain city, belongs to me, or occupies a specific location. Similarly, the flower can be identified by its position in a garden, field, or particular geographical location. One of Russell's insights was that proper names, such as "Max" (suppose it is the name I

use to call my dog), are definite descriptions in disguise. That is, any proper name can be substituted with a description that identifies the one and only thing named.

A **definite description** is a way of analyzing names and object terms for the purpose of making them more like predicates. This way we can clarify what we are talking about without resorting to gestures, context, or direct experience. You probably do this in your everyday life when you encounter confusion about a name. For instance, suppose a coworker says, "Kevin used up all the paper in the printer." If there is more than one Kevin in the office, you might answer, "Which Kevin?" And your coworker may then respond, "The one with brown hair whose workspace is right next to the entrance." "Oh," you might reply, "You mean the one with the picture of his kids on his desk?" In a sense, this process of disambiguating the reference for the name "Kevin" is a process of seeking a more definite description to supplement the proper name. Understanding that language is composed of definite descriptions and predicates can help us remove some of the ambiguity and vagueness that is a natural part of speech.

Enumeration

Sometimes, to understand the meaning of a concept, it is helpful to enumerate its component parts. For instance, we may say that a governmental body is composed of its legislature, its executive, and its judicial branches. Or we might recognize that a cell is composed of a nucleus, a cell wall, and organelles. The process of **enumeration** can help us specify the nature of the thing we are talking about. In effect, we are identifying the parts that make up a whole. Since claims about the whole can be analyzed as claims about its parts and claims about how the parts pertain to the whole, it is helpful to enumerate the parts and consider how claims about the whole relate to claims about the parts.

Just as enumeration is helpful in understanding material things, it can be used to understand abstract concepts. For example, Aristotle says that wisdom is composed of scientific knowledge, plus understanding, where understanding is the grasp of first principles and scientific knowledge is the grasp of demonstrated reasoning that follows from first principles. Whether or not Aristotle is correct, his enumeration may help us understand the nature of wisdom.

Thought Experiments

When philosophers want to clarify the relationship between concepts, they often consider hypothetical scenarios meant to isolate one or more features of a concept and place it in the appropriate relationship with other concepts. Such hypothetical scenarios are called **thought experiments**. These imaginative scenarios allow us to test or compare concepts to better understand their connections and logical consequences. Philosophers have used thought experiments for as long as we have a written record of philosophical thought. For instance, Plato devised an elaborate thought experiment in *The Republic*, in which he depicts Socrates and several of his friends describing an ideal city. The premise of this thought experiment is that if the philosophers could describe an ideal city in detail, they would be able to identify which part of the city gives rise to justice.

Aristotle, a Greek philosopher who followed Plato, arrives at the famous claim that "nature abhors a vacuum" (i.e., nature would not allow empty space between matter) by constructing a thought experiment. To argue for this conclusion, Aristotle assumes that there is such a void and then asks, how could one know the distance between two points in a vacuum? If there is any distance between two points, Aristotle reasons, that distance would have to be the property of something. But, by hypothesis, there is nothing between the two points: it is a pure void. Aristotle bases his reasoning on the idea that it is impossible for properties to exist without something they are the property of. This argument reveals that Aristotle thinks distance is a property of matter. Accordingly, it is impossible to measure distance in a pure void. Therefore, Aristotle reasons, it is not possible for a void to exist because it would occupy a distance that has no measure. Puzzles like this one can prompt fruitful philosophical reflection. What do you think about it?

Thought experiments are also common in ethics as a way of testing out moral theories. A moral theory could

be supported by a thought experiment if the result of applying the theory to a hypothetical case made good moral sense. On the other hand, the thought experiment might undermine the moral theory by demonstrating that when the theory is applied, it results in an absurd or immoral outcome. In any case, thought experiments can help us clarify the relationship between our concepts and theories.

Table 1.2 summarizes these four methods of conceptual analysis.

Type of Conceptual Analysis	Description	Application
Predicates	Predicates are descriptive terms, like "yellow" or "six feet tall". The role of conceptual analysis is to identify the right predicates for analysis and to clarify the relationship between them.	Predicates can help us clarify statements. For any sentence, we can ask, what is being predicated, and how is it being predicated?
Descriptions	A definite description is a way of analyzing names and object terms for the purpose of making them more like predicates. This way we can clarify what we are talking about without resorting to gestures, context, or direct experience.	Understanding that language is composed of definite descriptions and predicates can help us remove some of the ambiguity and vagueness that is a natural part of speech.
Enumeration	The process of enumeration can help us specify the nature of the thing we are talking about. In effect, we are identifying the parts that make up a whole.	Since claims about the whole can be analyzed as claims about its parts and claims about how the parts pertain to the whole, it is helpful to enumerate the parts and consider how claims about the whole relate to claims about the parts.
Thought experiments	Thought experiments are hypothetical scenarios meant to isolate one or more features of a concept and place it in the appropriate relationship with other concepts.	Thought experiments allow us to test or compare concepts to better understand their connections and logical consequences.

TABLE 1.2 Four Methods of Conceptual Analysis

Trade-offs

Conceptual analysis, logic, and sources of evidence together help philosophers compose a picture of the world that helps them get a better grasp of truth. Recall that philosophers are attempting to understand how things hang together in the broadest possible sense. However, it is unlikely that any single philosophical picture of the world will turn out to be so obviously compelling that it completely satisfies all criteria of logic, evidence, and conceptual analysis. It is much more likely that there will be competing pictures, each with strong reasons for believing in it. This situation is the basis for philosophical discussions. No one picture is so obviously true that all others can be discarded. Instead, we have to evaluate each picture of the world and understand the trade-offs that these pictures impose on us. We have to consider the practical and logical implications of the beliefs we hold to fully understand whether those beliefs are true and right.

READ LIKE A PHILOSOPHER

Excerpt from "Thinking and Moral Considerations" by Hannah Arendt

Hannah Arendt was a German-Jewish philosopher who fled Germany in the 1930s and eventually settled in New York City, where she became a prominent public intellectual. She is best known for her work on totalitarianism, power, and the notion of evil. She coined the phrase "the banality of evil" when reporting for the *New Yorker* magazine on the Nuremberg trial of Nazi bureaucrat Adolf Eichmann. The Nuremberg trials were a series of trials held in Nuremberg, Germany, after World War II in which Nazi leaders were held accountable for their war crimes before the international community. Subsequently, Arendt wrote the article "Thinking and Moral Considerations," in which she describes the ways that Eichmann's inability or unwillingness to consider the real, moral consequences of his actions caused him to behave in radically immoral ways. Arendt diagnoses the core problem of a person like Eichmann as "not stupidity but a curious, quite authentic inability to think." She considers thought to involve aesthetic and moral judgments; thus, for a person to engage in evil action, they must necessarily disregard self-reflection and conscientious thought.

Read this article, particularly focusing on the first two paragraphs and the last four paragraphs. You may be able to obtain a copy of the article through JSTOR (https://openstax.org/r/jstor) if you access this database through your college library. Then consider the following questions:

- In what sense does thinking require consideration of moral and aesthetic concerns? What is the relationship between thought and judgment?
- How does the word *conscience* function in Arendt's analysis? What is important about this word for understanding the nature of thought?
- How does the figure of Socrates function in Arendt's analysis to reveal the role of thinking?
- Why is thinking, in the sense that Arendt considers it, so easily disregarded by society? When does thinking matter most?

"Biting the Bullet"

Sometimes when weighing the trade-offs of a particular view and its logical consequences, you may decide to "bite the bullet." This means that you are willing to accept the negative consequences of the view because you find the view attractive for other reasons. For instance, on the topic of free will, a philosopher might be committed to the idea that past events fully determine the future. In such a case, the philosopher is willing to accept the negative implication that free will is an illusion. In ethics, some philosophers are committed to the view that morality is entirely determined by the total quantity of effects caused by an action. Such philosophers may be willing to accept things that would otherwise seem immoral, like harming an individual person, if that action results in a greater quantity of positive effects in the end. No view is going to be perfect, and it is difficult to make sense of the world in terms that we can explain and understand. Nonetheless, we must be honest about the logical and moral consequences of the views we hold. If you are ultimately willing to accept those consequences to maintain the view, then you can bite the bullet.

Reflective Equilibrium

Another method for assessing the logical and moral consequences of our thinking is to use judgments about particular cases to revise principles, rules, or theories about general cases. This process of going back and forth between an assessment of the coherence of the theory and judgments about practical, applied cases is called **reflective equilibrium**. This process requires the revision of a theoretical and principled stance based on practical judgments about particular cases. Reflective equilibrium is achieved when you are able to establish some coherence between your theoretical and practical beliefs. Reflective equilibrium is a kind of coherence method: that is, reflective equilibrium justifies beliefs by assessing their logical consistency. As opposed to a traditional coherence approach, however, reflective equilibrium encourages the use of practical

and applied judgments about cases as part of the set of beliefs that is logically consistent. Reflective equilibrium is an important method for introductory students to understand because students are frequently tempted to think they need to solve theoretical issues first before they can consider applications. Or they may choose a theory and then try to apply it to cases. Reflective equilibrium emphasizes that this procedure is likely neither possible nor desirable. Instead, a philosopher should be aware of both the theoretical commitments and the practical concerns of their position and use their understanding of each to inform the final analysis of their beliefs.

1.3 Socrates as a Paradigmatic Historical Philosopher

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Explain Socrates's appreciation for the limits of human knowledge.
- Identify Socrates's primary moral principles.
- Describe Socrates's life, death, and philosophical interests.
- Compare Socrates's moral philosophy with classical Indian philosophy.

Socrates is a foundational figure for Western philosophy. Even though he did not write any works himself, his life and thought are captured by three different, contemporary sources whose works we still have. Socrates is depicted in several of Aristophanes's comedic plays. Aristophanes, an accomplished Athenian playwright, won several dramatic competitions of his day. Eleven of his 40 plays survive, and in three of them—*The Clouds, The Frogs,* and *The Birds*—Socrates appears as a main character. Aristophanes's depiction of Socrates is ridiculous, and Plato appears to think that this depiction is partially responsible for Socrates's ultimate trial and death. Another contemporary of Socrates, the historian Xenophon, wrote an account of Socrates's trial and death in his *Memorabilia*. Finally, and most important, Socrates's student and friend Plato made Socrates the central figure in nearly all of his dialogues. Plato and Aristotle are the most influential of the Athenian philosophers and have had a profound influence on the development of Western philosophy. Plato wrote exclusively in the form of dialogues, where his characters engage in discussion centered on philosophical issues. Most of what we know about Socrates is derived from Plato's depiction of him as the primary questioner in most of the dialogues. Therefore, even though Socrates did not write works of his own, his life—and death—remain a testament to his profound and impactful philosophical life. For that reason, it is useful for us to consider the figure of Socrates as a paradigm of the philosophical life.

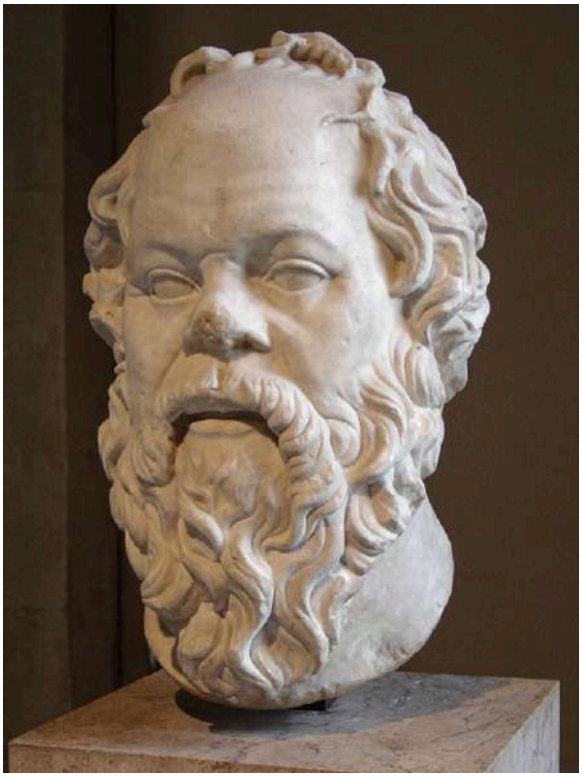

FIGURE 1.8 Roman 1st century marble sculpture of Socrates, which is perhaps a copy of a lost bronze statue made by Lysippos. (credit: "Head of Socrates, 1st Century, A.D." by Nathan Hughes Hamilton/Flickr, CC BY 2.0)

In particular, Socrates's defense of himself during his trial is in many ways a defense of the philosophical life. Socrates was accused by a young, upstart politician named Meletus of corrupting the youth and undermining the gods of the city. These crimes were considered to be a kind of treason that undermined the legitimacy and future of Athenian democracy. The speech Socrates gave in his own defense to the Athenians, as recorded by Plato, remains a vivid and compelling defense of the sort of life he lived. In the end, his defense was not successful. He was convicted, imprisoned, and killed in 399 BCE. Plato provides accounts of the trial and death, not only in the *Apology*, but also in the *Crito*, where Socrates argues with his friend Crito that it would be unjust for him to escape from prison, and in the *Phaedo*, where Socrates engages in a debate with several close friends, arguing in his jail cell just before he dies that the soul is immortal.

READ LIKE A PHILOSOPHER

This excerpt from Plato's *Apology* (https://openstax.org/r/platosapology), translated by Benjamin Jowett, records one account of Socrates's defense at his trial. He is responding to accusations made against him in front of the Assembly, which was the main governing body and jury for trials in Athens. This body was composed of 500 citizens.

> I dare say, Athenians, that someone among you will reply, "Why is this, Socrates, and what is the origin of these accusations of you: for there must have been something strange which you have been doing? All this great fame and talk about you would never have arisen if you had been like other men: tell us, then, why this is, as we should be sorry to judge hastily of you." Now I regard this as a fair challenge, and I will endeavor to explain to you the origin of this name of "wise," and of this evil fame. . . . I will refer you to a witness who is worthy of credit, and will tell you about my wisdom—whether I have any, and of what sort—and that witness shall be the god of Delphi. You must have known Chaerephon; he was early a friend of mine, and also a friend of yours, for he shared in the exile of the people, and returned with you. Well, Chaerephon, as you know, was very impetuous in all his doings, and he went to Delphi and boldly asked the

oracle to tell him whether—as I was saying, I must beg you not to interrupt—he asked the oracle to tell him whether there was anyone wiser than I was, and the Pythian prophetess answered that there was no man wiser. Chaerephon is dead himself, but his brother, who is in court, will confirm the truth of this story.

Why do I mention this? Because I am going to explain to you why I have such an evil name. When I heard the answer, I said to myself, "What can the god mean? and what is the interpretation of this riddle? for I know that I have no wisdom, small or great. What can he mean when he says that I am the wisest of men? And yet he is a god and cannot lie; that would be against his nature." After a long consideration, I at last thought of a method of trying the question. I reflected that if I could only find a man wiser than myself, then I might go to the god with a refutation in my hand. I should say to him, "Here is a man who is wiser than I am; but you said that I was the wisest." Accordingly I went to one who had the reputation of wisdom, and observed to him—his name I need not mention; he was a politician whom I selected for examination—and the result was as follows: When I began to talk with him, I could not help thinking that he was not really wise, although he was thought wise by many, and wiser still by himself; and I went and tried to explain to him that he thought himself wise, but was not really wise; and the consequence was that he hated me, and his enmity was shared by several who were present and heard me. So I left him, saying to myself, as I went away: "Well, although I do not suppose that either of us knows anything really beautiful and good, I am better off than he is—for he knows nothing, and thinks that he knows. I neither know nor think that I know. In this latter particular, then, I seem to have slightly the advantage of him." Then I went to another, who had still higher philosophical pretensions, and my conclusion was exactly the same. I made another enemy of him, and of many others besides him.

After this I went to one man after another, being not unconscious of the enmity which I provoked, and I lamented and feared this: but necessity was laid upon me—the word of God, I thought, ought to be considered first. And I said to myself, "Go I must to all who appear to know, and find out the meaning of the oracle." And I swear to you, Athenians, by the dog I swear!—for I must tell you the truth—the result of my mission was just this: I found that the men most in repute were all but the most foolish; and that some inferior men were really wiser and better. I will tell you the tale of my wanderings and of the "Herculean" labors, as I may call them, which I endured only to find at last the oracle irrefutable. When I left the politicians, I went to the poets; tragic, dithyrambic, and all sorts. And there, I said to myself, you will be detected; now you will find out that you are more ignorant than they are. Accordingly, I took them some of the most elaborate passages in their own writings, and asked what was the meaning of them—thinking that they would teach me something. Will you believe me? I am almost ashamed to speak of this, but still I must say that there is hardly a person present who would not have talked better about their poetry than they did themselves. That showed me in an instant that not by wisdom do poets write poetry, but by a sort of genius and inspiration; they are like diviners or soothsayers who also say many fine things, but do not understand the meaning of them. And the poets appeared to me to be much in the same case; and I further observed that upon the strength of their poetry they believed themselves to be the wisest of men in other things in which they were not wise. So I departed, conceiving myself to be superior to them for the same reason that I was superior to the politicians.

At last I went to the artisans, for I was conscious that I knew nothing at all, as I may say, and I was sure that they knew many fine things; and in this I was not mistaken, for they did know many things of which I was ignorant, and in this they certainly were wiser than I was. But I observed that even the good artisans fell into the same error as the poets; because they were good workmen they thought that they also knew all sorts of high matters, and this defect in them overshadowed their wisdom—therefore I asked myself on behalf of the oracle, whether I would like to be as I was, neither having their knowledge nor their ignorance, or like them in both; and I made answer to myself and the oracle that I was better off as I was.

This investigation has led to my having many enemies of the worst and most dangerous kind, and has given occasion also to many calumnies, and I am called wise, for my hearers always imagine that I myself

> possess the wisdom which I find wanting in others: but the truth is, O men of Athens, that God only is wise; and in this oracle he means to say that the wisdom of men is little or nothing; he is not speaking of Socrates, he is only using my name as an illustration, as if he said, "He, O men, is the wisest, who, like Socrates, knows that his wisdom is in truth worth nothing." And so I go my way, obedient to the god, and make inquisition into the wisdom of anyone, whether citizen or stranger, who appears to be wise; and if he is not wise, then in vindication of the oracle I show him that he is not wise; and this occupation quite absorbs me, and I have no time to give either to any public matter of interest or to any concern of my own, but I am in utter poverty by reason of my devotion to the god.

"The Life Which Is Unexamined Is Not Worth Living"

After Socrates is convicted and has a chance to address the jury to persuade them to offer him a sentence or punishment other than death, he considers and then rejects the idea of exile. If he lived in exile, Socrates believed he would no longer be able to carry on his work as a philosopher because a foreign city would be even less welcoming of his strange questioning than his hometown. In speaking about this alternative, he says the following:

> Someone will say: "Yes, Socrates, but cannot you hold your tongue, and then you may go into a foreign city, and no one will interfere with you?" Now I have great difficulty in making you understand my answer to this. For if I tell you that this would be a disobedience to a divine command, and therefore that I cannot hold my tongue, you will not believe that I am serious; and if I say again that the greatest good of man is daily to converse about virtue, and all that concerning which you hear me examining myself and others, and that the life which is unexamined is not worth living—that you are still less likely to believe. (Plato, *Apology*)

This idea—that a life that is "unexamined" is not worth living—strikes at the heart of what Socrates tells us motivates him to live a philosophical life. The statement ought to make us pause and reflect, not only because Socrates himself demonstrates his commitment to a particular kind of life, to the point of accepting death, but also because the charge that an unexamined life is not worth living rightly seems like such a serious thing. To have lived a life that is not worth living: What could be worse? Given the stakes, we ought to wonder, what does Socrates mean by an unexamined life? Or, alternatively, what would it look like to examine one's life in the appropriate way?

Examination of the Self

The first form of examination that Socrates clearly advises is self-examination. At the temple to the oracle at Delphi, one of three maxims engraved in stone is the phrase "know thyself." Like most oracular statements, it is not clear what is meant by this phrase. Plato suggests it may be a kind of warning to those who enter the oracle: "Know your position relative to the gods!" Alternatively, it may be a command to understand your own nature and your own mind before you seek to understand other people or the things of the world. Based on our reading of Socrates's life and works, we can assume that he considers this saying to be a command to investigate our beliefs and knowledge, to appreciate the limits of our own knowledge, and to strive to eliminate inconsistencies. After all, Socrates's method of questioning as it is described in Plato's dialogues (and as Socrates himself describes in the excerpted passage) is exactly such an inquiry.

Socrates questions others about whether their beliefs are consistent and whether they have adequate justification for the beliefs they hold. This line of questioning suggests that Socrates holds such consistency and internal justification in high regard. We can imagine that Socrates considers an unexamined life to be one in which a person holds beliefs without justification or holds beliefs that are inconsistent with one another. We may then speculate that an unexamined is not worth living because it is dictated by beliefs and ideas that have never been tested, justified, or accounted for. You might respond that endless questioning is boring or difficult, or you may respond that "ignorance is bliss." For a philosopher, this attitude is not only undesirable, but it also

approaches irrationality. It seems that, whatever makes life worth living for creatures capable of rational thought, a minimum requirement is that we believe things worth believing in, hold positions we can defend, and understand why we do what we do. To do that, we need to engage in self-examination.

FIGURE 1.9 This image depicts Socrates in deep conversation with Athenian statesman Alciabiades, Athenian politician and orator Pericles, and Aspasia, a well-known Milesian woman who gained political and philosophical influence as Pericles' romantic partner. (credit: "Drawing, Socrates, Pericles, Alcibiades, Aspasia in Discussion" by Felice Giani/Cooper Hewitt Smithsonian Design Museum, Public Domain)

Examination of Nature

Even though Socrates himself did not develop an account of nature and the cosmos like many of the pre-Socratic philosophers, we may imagine that living an examined life requires us to understand the world around us. Socrates himself was well aware of the various natural philosophical accounts that were prominent in his day. Plato frequently records Socrates quoting or citing another philosopher's account of the planets and stars, natural change, or other natural phenomenon when he is questioning others. Indeed, several of the dialogues place Socrates in conversations about the nature of the soul, the nature of causality, the classification of animals and plants, and so forth, all of which could fall under the examination of nature. Why might such a process of examination be important for a life worth living? We might speculate that it is important for us remain curious. The capacity to reason gives human beings the ability to investigate how things work—to discover truths about the world around them. Neglecting that drive to understand the world around us is like neglecting a natural skill. Methods of philosophical reflection can help us make sense of the world around us. Such investigation is characteristic of the ancient philosophers and may be considered part of a life worth living.

Human Wisdom Is Worth Little or Nothing

In the excerpt from Plato's *Apology*, Socrates investigates the oracle's strange response that he is the wisest of men. First, Socrates attempts to prove the oracle wrong by finding someone wiser than he. But, after a time, he comes to realize that the oracle's response was a kind of riddle. He interprets the oracle as saying that Socrates is wisest because he alone realizes that human wisdom is worth little or nothing. This realization is important for Socrates's own self-examination and provides an important lesson for philosophy students.

Understanding the Limits of Knowledge

Perhaps one of the greatest lessons you can learn from a well-rounded college education is just how much more there is to know about the world. Even the most respected scientists, philosophers, mathematicians, and historians recognize that the scope of their expertise is extremely limited. A lifetime of study can, at best, give a person deep insight into a tiny fraction of the universe of human knowledge. Beyond that, there is a vast domain of things that no human has yet discovered or understood. Consequently, it is a good idea to practice Socrates's advice: to be aware of what you do not know and not to assert knowledge where you lack it. People are often resistant to taking this position because they want answers. Someone who can convince others that they know the solution to their problems or personal dilemmas can exert a great deal of power over them. But we ought to recognize the dangers of asserting knowledge where we lack it. In technical areas, a refusal to admit ignorance can result in the failure of equipment, the malfunctioning of machines, and in the worst cases, injury and loss of life. In the moral and political arenas, asserting knowledge where you lack it may lead to unnecessary disagreements and polarization, or it may result in ill-considered actions that result in ethical mistakes or harm to others. Most importantly, if you are not aware when you lack knowledge, you will not seek to acquire the knowledge you lack. If you believe you already know something, you will not listen to the evidence that disproves what you believe. As a result, you will miss out on learning the truth.

The Socratic Method

Socrates engaged in a particular method of questioning, sometimes known as the **Socratic method**, that was characterized by his asking questions of others rather than explaining his own beliefs. Socrates is typically hesitant to offer his own ideas about the topic under discussion. Instead, he asks the people he is questioning to supply the subject matter for their discussion. Socrates's use of this strategy may be puzzling. One explanation may be that he is following the god's command, as he says in the *Apology*. Another explanation is that he does not claim to have knowledge about the topic in question and is genuinely happy to learn from others. Yet another possibility is that Socrates feigns ignorance and is being insincere. Perhaps his true goal is to trap or humiliate the other person by discovering some inconsistency or obvious falsehood in what they believe. It is hard to know which of these is the most likely explanation, but we will focus for a moment on a fourth possibility, namely, a pedagogical one.

In two different Platonic dialogues, Socrates explains what he is doing by using an analogy: he compares his method of questioning to the role taken by a midwife during childbirth. In fact, Plato tells us that Socrates's mother was a midwife and that he assumes her role in philosophical conversation. The goal of Socratic questioning, then, is to assist the person being questioned in discovering the truth on their own. By asking questions and examining the claims made by another person, Socrates allows that person to go through a process of self-discovery. This method provides an interesting lesson for teaching and learning. Often, students believe that their role is to simply receive knowledge from the teacher. But Socrates reminds us that real learning comes only through self-discovery and that the role of the teacher is to be an assistant, providing the kind of critical examination and evaluation necessary to help the student discover truth on their own.

The Importance of Doing No Harm

Even though many early philosophers were concerned with understanding nature, Socrates is much more concerned with ethics, or how to live a good life. He considers the primary purpose of philosophy to make one's life better by making the philosopher a better person. Even though Socrates rarely claims to have knowledge about anything at all, the few instances where he does profess knowledge relate directly to morality. In particular, Socrates asserts a pair of moral principles that are quite controversial and may appear at first glance false. However, upon closer inspection, you may find that these principles bear some truth that is worth consideration.

Socrates's Harm Principle

Socrates's harm principle claims the following:

1. No one willingly chooses what is harmful to themselves.
2. When a person does harm to others, they actually harm themselves.

The first principle is sometimes stated as "no one intentionally chooses evil," but for the purposes of this discussion, it will be clearer to consider the above formulation. The important thing to understand about the first principle is that Socrates believes that when people choose bad things, they do so out of ignorance. The reason he thinks so is that he believes all people desire what is good. For Socrates, it is intuitively true that whatever someone desires, that desire is always directed at something that appears good to them, which means a person cannot choose what is harmful for its own sake. Instead, Socrates reasons, when individuals do harmful things, they believe that what they are doing will bring about some good for them. In other words, when people choose evil, they do so in the belief that it is good or will bring about something good. If, in fact, they are wrong, then that was the fault of ignorance, not a desire to do evil. If they had better understood the consequences of their actions, Socrates reasons, they would not have chosen something harmful.

The second principle derives from the fact that Socrates thinks the greatest harm that can come to anyone is for their soul—or their character—to become corrupted. Since a corrupted soul is the result of making the kinds of choices that produce harm, it follows that whenever someone does something harmful, they corrupt their soul, so they harm themselves. At the end of the *Apology*, Socrates argues that it is not possible to harm a good man because, even though you might kill him, you cannot harm his character or make him do evil. Socrates seems to regard physical suffering, and even death, as a temporary and minor harm. Moreover, he regards the harm to one's character by living a life of ignorance or malevolence as far worse than physical death.

THINK LIKE A PHILOSOPHER

- Do you agree with the first principle of Socrates, which leads him to claim that no one willingly does harm? Why do you agree or disagree with him?
- Can you think of examples from your own life or experience that demonstrate that people deliberately do harm for harm's sake?
- Is the second claim true or false? Can you think of examples to prove the second claim true? False?
- Why might Socrates believe that harm to one's character is more significant than even death? Is Socrates mistaken? If you believe he is mistaken, on what do you base your claim?

When you answer these questions, be sure to give Socrates the benefit of the doubt. After all, there is no question that Socrates was a smart person. He lived at a different time and may appear strange to you, but you will find that his ideas are still relevant if you give them some consideration. After you take Socrates seriously, can you still find an error in Socrates's thinking?

Comparison of Socrates's Harm Principle with *Ahimsa* in the Indian Tradition

It may be instructive to consider the possible connection between the core concept of ***ahimsa*** in classical Indian philosophy and Socrates's harm principle as discussed above. Etymologically, the word *ahimsa*, in Sanskrit, literally means "the absence of doing injury or harm." The concept is found throughout Hindu, Jain, and Buddhist texts and likely has its origins deep in classical Indian thought. A well-known illustration of *ahimsa* comes from Jainism, where the concept is taken to what most of us would consider to be extreme measures—at least in the case of Jain ascetics observing *ahimsa* as one of the "great vows." Such ascetic Jains must take the greatest possible care not to cause harm, intentionally or unintentionally, to any creature, including insects, plants, and microbes. At the end of their lives, a devout Jain may even fast to death (stop eating) in one final renunciation of doing harm. Another well-known example of *ahimsa* can be seen the philosophy of Mahatma Gandhi, who used the concept to establish a nonviolent civil disobedience movement that some say helped speed the colonial British departure from India.

Ahimsa is identified as one of the highest virtues in the Vedic tradition (the Vedas are the most sacred scriptures of India) and is one of the loftiest teachings in Indian philosophy. The idea of *ahimsa* informs animal ethics, just-war theory, and interpersonal relations. On a metaphysical level, *ahimsa* is connected with karma—the causal law that links causes to effects, even across lifetimes. This informs the belief that an individual will bear a future burden for harms committed in the present through the process of *samsara*, or transmigration and rebirth of the soul. According to this religious and philosophical theory, the soul brings both its good and bad karma (fruit of action) with it from life to life and will either enjoy the fruits of prior good actions or suffer the consequences of bad ones. Because of the laws of karma and reincarnation, any action resulting in violence, injury, or harm has the direct consequence of chaining an individual's soul to a process of rebirth and material suffering. Insofar as a person causes injury and suffering to others, they increase the total negative effects in nature. In summary, the individual creates bad effects for themselves by acting badly. From the perspective of Indian philosophy, there is a natural connection among all beings, so causing harm or injury to one entity is like harming a family member or even a part of oneself. Additionally, because individual experience is governed by the laws of karma, harm and injury to others has the result of causing injury to oneself.

However, *ahimsa* does not focus only on the problem of causing harm. The practice of *ahimsa* also calls for the practice of love and compassion toward all beings. Following the same principles of karma and samsara, acts of love, kindness, and generosity have the effect of increasing the total amount of good in the world, of recognizing that we are, in the words of Martin Luther King Jr., "caught in an inescapable network of mutuality" and "tied in a single garment of destiny" (1963). The practice of love and compassion increases the possibility of liberation from material suffering.

It may be useful to consider possible comparisons between the Indian notion of *ahimsa* and Socrates's harm principle. Both doctrines teach that by causing harm, acting through violence, or causing suffering to others, we actually harm ourselves. They describe different mechanisms for how that harm comes to us. Which do you think sounds more likely to be true? Are there other advantages or disadvantages to either view?

Additionally, Socrates says that no one directly desires to cause harm or do evil; harm is the product of ignorance. For Indian philosophers, there is a connection between harm or suffering and ignorance as well. For them, suffering is caused by attachment to temporary things, both material and immaterial, including feelings, goals, or ideals. The remedy for attachment is enlightenment, which comes from recognizing that all perceptions, feelings, and desires emerge from prior causes and that the chain of causes continues without end. All things that are part of the chain of causes, according to Indian philosophers, are temporary. Once a person has this realization, they ought to recognize the harm that comes from attachment, from trying to hold on to any product of the unending chain of causes. The connection between ignorance and harm is quite different for each philosophy, but it may be worthwhile to consider how and why they are different. It may also be worthwhile to reflect on whether there is a connection between harm and ignorance and what it might be.

1.4 An Overview of Contemporary Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify the role of professional philosophers in academics and beyond.
- Identify the structure, organization, and thematic goals of the textbook.

Contemporary academic philosophy bears minimal resemblance to the classical traditions we have discussed in the previous sections. Philosophers today, like other academics, focus on specific areas of research expertise with the goal of producing new research that advances our philosophical understanding of specific problems or topic areas. That said, philosophical investigation is still motivated by the same desire to make sense of things in the most general way possible. In this section, we will introduce you to what philosophy majors do. Additionally, we will provide a brief summary of the themes and organization of the textbook.

What Can You Do with a Philosophy Major?

Majoring in philosophy is a great way to complete a liberal arts degree. Philosophy will introduce you to fascinating ideas and teach you to think analytically and creatively. If you enjoy the topics in this book, you should consider a philosophy major.

Becoming a Philosophy Teacher

To pursue a career in academic philosophy, you must major in philosophy as an undergraduate and continue your studies in the field by doing some graduate work. Community colleges and some four-year schools employ instructors with a master's degree in philosophy. However, it is very common for these jobs to be occupied almost entirely by people with PhDs. Academic jobs, particularly in the humanities and liberal arts, are extremely competitive. Even with a PhD, it will be difficult to find a job in an academic department. That said, it is much more common to find jobs teaching than doing research, but many teaching jobs still require some research. A philosophy professor or instructor may be asked to teach on a wide variety of subjects, depending on the needs of the school. By contrast, when doing research, academic philosophers tend to focus on a very specific area with the goal of becoming an expert in that topic. Expertise is generally marked by the production of research work, such as a dissertation, book, or several research articles on the topic. Academic research jobs are typically secured with tenure, meaning that there are strong protections against unjustified firing. However, recent studies of federal data show that 73 percent of all academic jobs are not on the tenure track (meaning there is no chance to secure tenure). Additionally, 40 percent of all academic teaching positions are occupied by part-time faculty. The distribution of tenured, tenure-track, non-tenure track, and part-time employees varies greatly by institution type, with community colleges employing far more part-time instructors and far fewer tenured and tenure-track instructors. Meanwhile, research universities employ more tenured and tenure-track faculty and fewer part-time faculty (AAUP 2018).

Alternatives to Academic Philosophy

Philosophy undergraduate and graduate degree majors have many options outside of teaching and research in an academic environment. There is a widespread and somewhat mistaken belief that the purpose of selecting a college major is to prepare you for a specific career. While that may be true for some technical degrees, like engineering or nursing, it is generally not true for degrees in the liberal arts and sciences. Many students enter college with a desire to pursue a career in some area of business or commerce. Others plan to go on to a professional graduate school in medicine or law. While it may seem like the best career decision would be to major in business, premed, or prelaw, this notion is probably misguided.

The original idea behind a liberal arts and sciences education was that high school graduates could study a broad range of fields in the core areas of knowledge that are foundational for our culture, society, and civilization—areas like the natural and social sciences, literature, history, religion, and philosophy. By studying these fields, students gain insights into the key ideas, methods of investigation, questions, and discoveries that underlie modern civilization. Those insights give you a perspective on the world today that is informed by the history and learning that make today's world possible. And that perspective can have a transformative effect that goes far beyond job preparation.

When philosophy majors are compared to other majors in terms of their long-term career earnings, it appears that philosophy majors do very well. While the starting salaries of philosophy majors are lower than some other majors, their mid-career salaries compare very favorably with majors in areas like finance, engineering, and math.

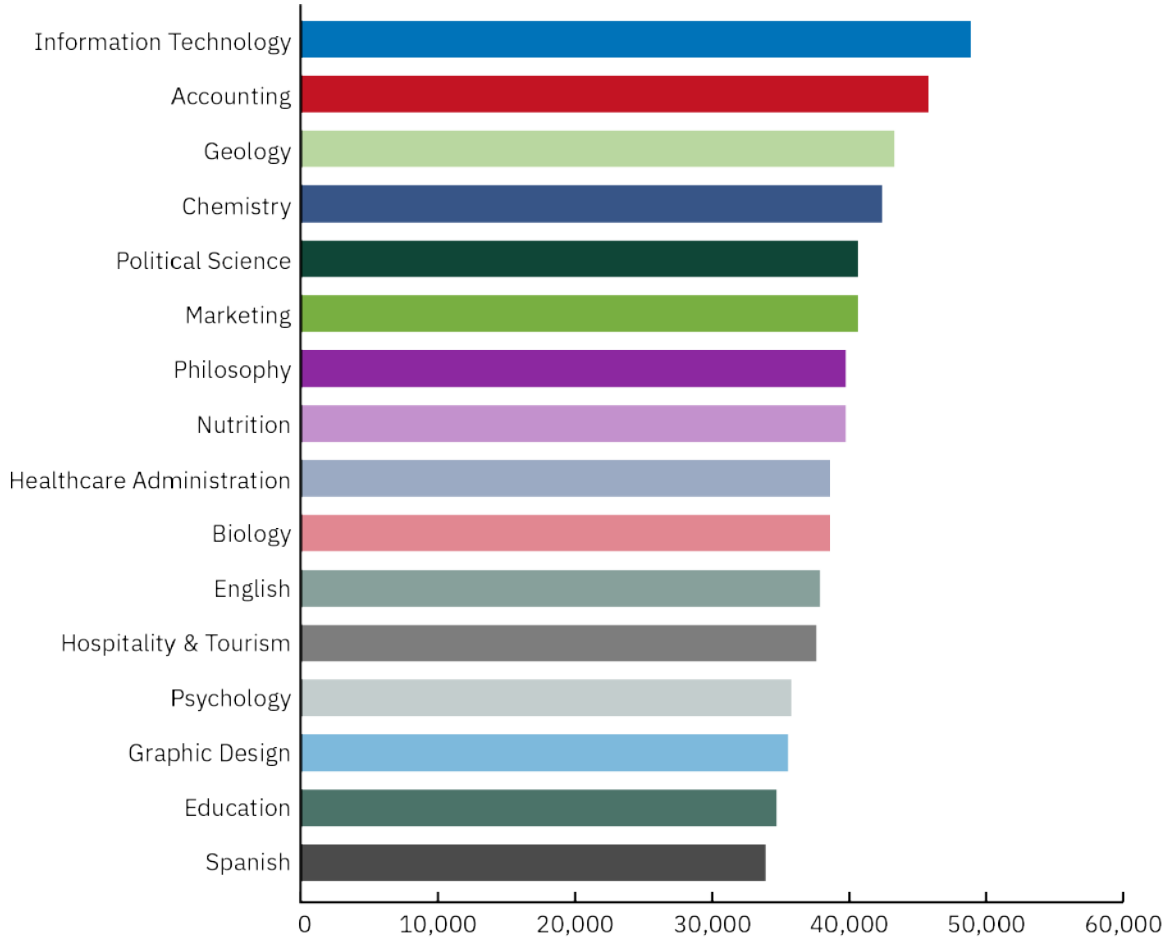

FIGURE 1.10 Median mid-career salaries (10 years after graduation) by college major. Philosophy majors make more, on average, than those majoring in many other areas. (source: *Wall Street Journal*) (attribution: Copyright Rice University, OpenStax under CC BY 4.0 license)

Additionally, philosophy majors have some of the highest LSAT and GMAT scores of any major (these are the tests generally required for admission to law school and business school, respectively). Quite a few former philosophy majors have gone on to become CEOs of large corporations, such as Reid Hoffman, cofounder of LinkedIn, and Carly Fiorina, CEO of Hewlett-Packard (Chideya 2015).

Many philosophers who have earned a graduate degree in philosophy and held positions as professors and instructors have made successful transitions to other careers, including start-ups, technology, business, ethics review boards, and public philosophy. Nigel Warburton, a former philosophy professor, started the philosophy podcast "Philosophy Bites" that is one of the most downloaded podcasts on academic topics. He also is an editor-in-chief of the online magazine *Aeon*. David Barnett, a former philosophy professor, founded the company PopSockets in 2012 after leaving academia. That company now employs over 200 people and generates hundreds of millions of dollars in annual revenue. Additionally, there are a growing number of technology, neuroscience, and medical firms that are specifically looking to hire philosophers to help with research and ethics reviews. Marcus Arvan maintains a public directory of academic philosophers who have found work outside of academia at Philosophers in Industry (https://openstax.org/r/philosopher). In short, philosophers can be found nearly everywhere doing useful work and making good money. You should not let concerns about career prospects drive you away from studying philosophy.

An Overview of Your Philosophy Textbook

This textbook is organized in a way that generally reflects the broad areas of specialization in contemporary academic philosophy. Areas of specialization can be grouped into the following fields: historical traditions;

metaphysics and epistemology; science, logic, and mathematics; and value theory. The fields of science, logic, and mathematics include research into contemporary symbolic logic as well as interdisciplinary work in the philosophy of mathematics and the sciences; these areas are closely related to metaphysics and epistemology. Value theory includes metaethics and the meaning of value, aesthetics, normative moral theories (ethics), and political philosophy. This textbook aims to provide a general overview of each of these areas. We give students a theoretical survey of each field in philosophy and introduce applications of these areas of study to contemporary issues of interest. Additionally, we have an explicitly multicultural focus. We emphasize that philosophy has been studied and practiced throughout the world since the beginning of recorded history. In doing so, we are attempting to confront the Eurocentric bias that has been inherent to the study of philosophy in the West and create a more inclusive curriculum.

Throughout this text, we introduce you to the stunning array of philosophers and ideas from ancient Greece, Rome, and China, the classical Islamic and the late medieval European worlds, Africa, India, Japan, and Latin America. We help situate you within the different regions and time periods using timelines and other tools.

Whether you go on to study philosophy or this is the only philosophy course you take, the habits of mind and techniques of philosophical thought you will learn can have a transformative effect. When you allow yourself to reflect on how a certain situation connects to the whole, when you critically examine your own biases and beliefs, when you investigate the world with an open mind, informed by rational methods of investigation, you will arrive at a richer sense of who you are and what your place is in the world.

Summary

1.1 What Is Philosophy?

The word "philosophy" derives from ancient Greek, in which the philosopher is a lover or pursuer (*philia*) of wisdom (*sophia*). The earliest Greek philosophers were not known as philosophers; they were simply known as sages. The sage tradition is a largely prehistoric tradition that provides a narrative about how intellect, wisdom, piety, and virtue lead to the innovations central to the flourishing of ancient civilizations. Particularly in Greece, the sage tradition blends into a period of natural philosophy, where ancient scientists or philosophers try to explain nature using rational methods.

Wilfrid Sellars emphasizes that philosophy's goal is to understand a very wide range of topics—in fact, the widest possible range. That is to say, philosophers are committed to understanding everything insofar as it can be understood. A philosopher chooses to study things that are informative and interesting—things that provide a better understanding of the world and our place in it. To make judgments about which areas are interesting or worthy of study philosophers need to cultivate a special skill. Sellars describes this philosophical skill as a kind of know-how. Philosophical know-how has to do with knowing your way around the world of concepts and being able to understand and think about how concepts connect, link up, support, and rely upon one another—in short, how things hang together.

1.2 How Do Philosophers Arrive at Truth?

The goal of philosophy is to provide a coherent story of how the world as it appears to us can be explained in a way that also makes sense of what the sciences tells us. Given the influence of philosophy on world history, it is worthwhile to engage with the writings of past philosophers to inform our understanding of pressing philosophical questions of today.

What philosophers today mean by intuition can best be traced back to Plato, for whom intuition (*nous*) involved a kind of insight into the very nature of things. This notion has had religious connotations, as if the knowledge gained through intuition is like catching a glimpse of divine light.

When philosophers talk about common sense, they mean specific claims based on direct sense perception, which are true in a relatively fundamental sense. In other words, philosophical champions of common sense deny that one can be skeptical of certain basic claims of sense perception.

Experimental philosophy is a relatively recent movement in philosophy by which philosophers engage in empirical methods of investigation, similar to those used by psychologists or cognitive scientists. Philosophers use experimental methods to find out what average people think about philosophical issues. Since common sense and intuition are already a source of evidence in philosophical reasoning, it makes sense to confirm that what philosophers ascribe to common sense or intuition aligns with what people generally think about these things.

Logic attempts to formalize the process that we use or ought to use when we provide reasons for some claims. The first and most important move in logic is to recognize that claims are the product of arguments. In particular, a claim is just the conclusion of a series of sentences, where the preceding sentences (called premises) provide evidence for the conclusion. In logic, an argument is just a way of formalizing reasons to support a claim, where the claim is the conclusion and the reasons given are the premises.

A set of beliefs or statements is coherent, or logically consistent, if it is possible for them to all be true at the same time. If it is not possible for statements or beliefs to be true at the same time, then they are contradictory. It seems unreasonable for a person to accept contradictory claims because a contradiction is a logical impossibility. If a person holds contradictory beliefs, then they must be wrong about at least some of their beliefs.

One of the techniques that philosophers use to clarify and understand philosophical statements (either premises or conclusions) is conceptual analysis. Conceptual analysis involves the analysis of concepts,

notions, or ideas as they are presented in statements or sentences. The term analysis has been a part of philosophical terminology and methodology since its beginning. In its most basic sense, analysis refers to the process of breaking apart complex ideas into simpler ones. Analysis also involves a cluster of related strategies that philosophers use to discover truths. Each of these techniques attempts to arrive at a clearer and more workable definition of the concepts in question.

1.3 Socrates as a Paradigmatic Historical Philosopher

Most of what we know about Socrates is derived from Plato's depiction of him as the primary questioner in most of the dialogues. The idea that a life which is "unexamined" is not worth living strikes at the heart of what Socrates tells us motivated him to live a philosophical life. The first form of examination that Socrates clearly advises is self-examination. Even though Socrates rarely claims to have knowledge about anything at all, the few instances where he does profess knowledge relate directly to morality. In particular, Socrates asserts a pair of moral principles that are quite controversial and may appear at first glance false. Socrates claims the following: 1) No one willingly chooses what is harmful to themselves; 2) When a person does harm to others, they actually harm themselves.

Socrates engaged in a particular method of questioning, sometimes known as the "Socratic method," which was characterized by his asking questions of others rather than explaining his own beliefs. The goal of Socratic questioning is to assist the person being questioned in discovering the truth on their own. By asking questions and examining the claims made by another person, Socrates allows that person to go through a process of self-discovery.

1.4 An Overview of Contemporary Philosophy

Contemporary academic philosophy is different from the classical traditions, although the motivation for doing philosophy remains the same. If you are interested in pursuing a career in academic philosophy, a graduate degree—most likely a PhD—is required. However, philosophy majors at any level can have fulfilling and rewarding careers in a variety of fields.

This textbook is organized in a way that generally reflects the broad areas of specialization in contemporary academic philosophy. Areas of specialization can be grouped into the following fields: historical traditions; metaphysics and epistemology; science, logic, and mathematics; and value theory. The fields of science, logic, and mathematics include research into contemporary symbolic logic as well as interdisciplinary work in the philosophy of mathematics and the sciences; these areas are closely related to metaphysics and epistemology. Value theory includes metaethics and the meaning of value, aesthetics, normative moral theories (ethics), and political philosophy. This textbook aims to provide a general overview of each of these areas.

Key Terms

Ahimsa one of the highest virtues of classical Indian religions. It is the practice of refraining from harming other living things.

Argument a set of sentences, where some of those sentences (called premises) provide support for another sentence, called the conclusion.

Coherence a situation in which it is possible for a set of beliefs or statements to be true at the same time.

Common sense knowledge primarily derived from perception that seems clearly or obviously true.

Conceptual analysis the process of taking apart and making sense of sentences or claims by examining their component parts.

Definite description a method of conceptual analysis that substitutes a descriptive phrase that uniquely identifies the object or thing named for an object term or proper name.

Enumeration the listing of the component parts of a concept, notion, or thing.

Experimental philosophy philosophy that uses methods from experimental science to test claims made in philosophy.

Intuition certain and evident cognition; the kind of knowledge that is so clear that it seems impossible for it to be false.

Logic the formalization of reasoning.

Milesians a school of early philosophers from Miletus; followers of Thales. They were known for examining the underlying causes of natural phenomena.

Philosophy the "love of wisdom." An academic discipline that attempts to grasp the broadest possible understanding of things. It is characterized by rational explanation and a willingness to question assumptions.

Predicate the portion of a sentence that provides the description or characterization of an object or name. (A philosophical predicate is different from the predicate of grammar, and their definitions should not be confused.)

Reflective equilibrium a process of reviewing a theoretical position by going back and forth between the theory and its practical applications. This process seeks coherence between theory and practice.

Sage a wise person. Many ancient cultures designated important wise figures as "sages."

Sanatana dharma the core or absolute set of moral and religious duties ordained for all people of ancient India, regardless of class or caste, and that predate the term *Hinduism*.

Socratic method a method of questioning used by Socrates (and named after him later) to help people understand what they were thinking and to arrive at some truth.

Thought experiment an imaginative scenario that tests some philosophical theory or concept by considering how it might apply in the imagined situation.

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Review Questions

1.1 What Is Philosophy?

1. What are some common characteristics of ancient sages in the Greek, Indian, and Chinese traditions?
2. What characteristics are essential for being identified as a “sage”?
3. What is the connection between sages and philosophers?
4. Provide one example of an ancient philosopher or sage who was doing something like natural science. What made this philosopher’s activity scientific?
5. What does it mean for philosophy to “have an eye on the whole”? How is this different from other disciplines?
6. Why is it necessary for philosophers to discard suppositions or assumptions that may be acceptable in other disciplines?

1.2 How Do Philosophers Arrive at Truth?

7. What are five sources of evidence commonly used in philosophy? Which of these are empirical? Which do not require observation or experiment?
8. What are three techniques used in conceptual analysis? Explain how they work.
9. What is coherence? What does it mean for a set of beliefs or statements to be coherent?
10. What do philosophers mean by intuition?
11. What are thought experiments?

1.3 Socrates as a Paradigmatic Historical Philosopher

12. Consider Socrates's conclusion that "human wisdom is worth little or nothing." Do you think this is true? Why or why not?
13. Do you think the Socratic method is an effective way of maintaining humility about knowledge?
14. What do you think Socrates means by "the life which is unexamined is not worth living"? Do you agree?
15. Compare and contrast Socrates's moral philosophy with that of the Hindu principle of *ahimsa*.

1.4 An Overview of Contemporary Philosophy

16. What are the primary areas of specialization in academic philosophy?

Further Reading

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Critical Thinking, Research, Reading, and Writing

2

FIGURE 2.1 Thinking: a sculpture of two figures in Prague. (credit: modification of "Thinking" by Kurtis Garbutt/ Flickr, CC BY 2.0)

CHAPTER OUTLINE

INTRODUCTION You have likely heard the term "critical thinking" and have probably been instructed to become a "good critical thinker." Unfortunately, you are probably also unclear what exactly this means because the term is poorly defined and infrequently taught. "But I know how to think," you might say, and that is certainly true. Critical thinking, however, is a specific skill. This chapter is an informal and practical guide to critical thinking and will also guide you in how to conduct research, reading, and writing for philosophy classes.

Critical thinking is set of skills, habits, and attitudes that promote reflective, clear reasoning. Studying philosophy can be particularly helpful for developing good critical thinking skills, but often the connection between the two is not made clear. This chapter will approach critical thinking from a practical standpoint,

with the goal of helping you become more aware of some of the pitfalls of everyday thinking and making you a better philosophy student.

While you may have learned research, reading, and writing skills in other classes—for instance, in a typical English composition course—the intellectual demands in a philosophy class are different. Here you will find useful advice about how to approach research, reading, and writing in philosophy.

2.1 The Brain Is an Inference Machine

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Describe the role of emotion in thought.
- Explain how cognitive systems produce inferences without conscious thought.

One of the first steps to becoming a more critical and reflective thinker is to understand how and why you are prone to making mistakes in thinking. These mistakes are not the result of a lack of intelligence but are a function of the way our minds work and how they naturally lead us astray.

From a biological perspective, we have been shaped by hundreds of thousands of years of evolution, which have primed our brains to become extremely effective **inference** machines. An inference is the mental process that allows us to draw conclusions from evidence. While we tend to think of inference as a deliberative and conscious process, we infer all kinds of things unconsciously, effortlessly, and immediately; in fact, most of sense perception is a kind of inference. Inference making has been crucial to human survival, but our conclusions are not always correct. By becoming aware of how our brains function to ward off threats and provide us with "cognitive ease," or a feeling of well-being and comfort, we can begin to correct for and guard against faulty thinking.

The Brain's Adaptive Ability to Plan Ahead

One insight of evolutionary biology is that every cell and organ in our body is adapted to its local environment for the purpose of making it more likely that our genes will survive into the next generation. Consequently, it's helpful to think about the brain's role in propagating our genes. Our brains facilitate our survival and promote our ability to find a partner and reproduce by using thought, calculation, prediction, and inference. For this reason, our natural and genetically primed ways of thinking do not necessarily serve the goals of philosophy, science, or truth.

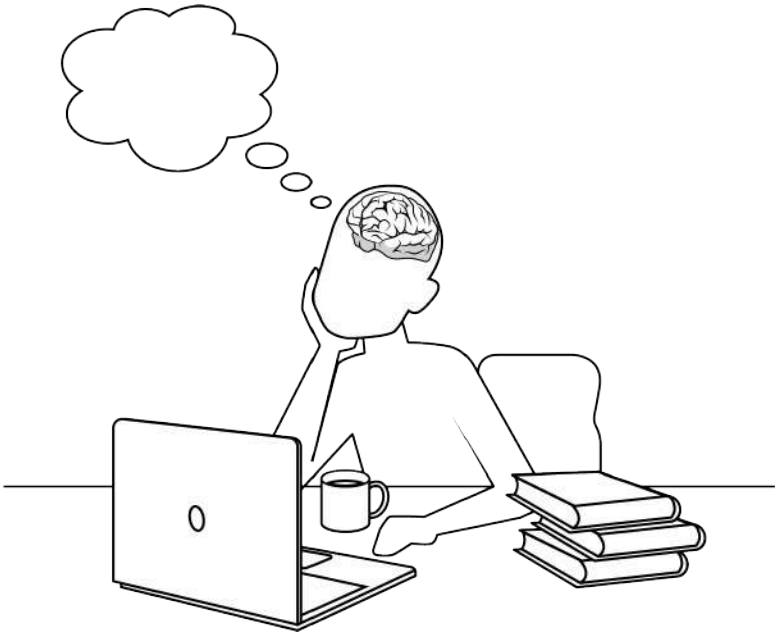

FIGURE 2.2 The "mind-brain" problem points to the unclear relationship between our thoughts, feelings, and perceptions, and the neurological and electrochemical interactions that take place in the brain. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

Philosophical Caveats about "Brain Talk"

Before we get much further, note that it is important to be cautious when we talk about brains and minds, which are distinct concepts. In fact, the relationship between mind and brain is one of the central problems of metaphysics, known as the "mind-body problem," which might just as well be called the "mind-brain problem." Briefly stated, the mind-body problem is the problem of understanding the relationship between the organic gray and white matter in our skulls (the brain) and the range of conscious awareness (the mind). We know that the brain and central nervous system provide the physical basis for our thoughts, perceptions, emotions, imagination, and desire—in short, our entire mental life. But biology does not tell us what the relationship is between our private mental life and the neurological, electrochemical interactions that take place in the brain. Is the relationship of the mind to the brain like the relationship between lightning and electrical discharge or a rainbow and the refraction of light through water droplets? In other words, is "the mind" just the term we use to label certain kinds of brain activity? Some philosophers think so. However, mental activity is not easily associated with any specific brain activity. Additionally, there seems to be something about the subjective experience of our mental life that is lost when we attempt to explain it fully in terms of brain activity. So other philosophers maintain that the mind is something different from the brain. Nonetheless, the mind and the brain are closely and somewhat mysteriously connected. As a result, it can be helpful to use the resources of psychology and **cognitive science** (the study of the brain's processes) to help us understand how to become better thinkers. We can think of the resources from psychology and cognitive science as providing us with a description of how the brain actually behaves. By contrast, when we study critical thinking, we are interested in how we *ought* to think. Being aware of how we do think may help us devise effective strategies for how we ought to think, but we should understand that the descriptions provided by psychology are not determinative. In this chapter, we explore psychological findings that can help you become more reflective about the ways your thinking can go wrong.

CONNECTIONS

Read more about the nature of the mind and the mind-body problem in the chapter on metaphysics.

Representation as Projection

While you may consider thinking to be made up of ideas or thoughts, philosophers and cognitive scientists use the term **representation** to describe the basic elements of thinking. Representations are information-bearing units of thought. This notion of representation can be traced back to Aristotle and has played a significant role in the history of philosophy, but in contemporary philosophy the term *representation* is more precise. When we think about things, whether through perception, imagination, memory, or desire, we represent those things. What is represented may be something present and real, or it may be fictitious, imagined in the future, or remembered from the past. Representations may even be unconscious. That is, the mind may have some defined content that is directed toward an object without the person being aware that they have produced such a representation.

During the process of representation, even in a relatively simple case of visual perception, the brain makes a complex set of inferences. For instance, consider the checkerboard below. You might imagine that when you perceive something like a checkerboard, your brain passively takes a mental picture of the grid. In this analogy, the eye functions like the lens of a camera, and the brain develops the picture to present to the mind. But there are several problems with this model. First, where is the picture in your brain? Who is viewing the picture in your head? There are further problems with the camera analogy that can be revealed when we examine optical illusions. Look at the checkered set of squares in Figure 2.2. Are the horizontal lines parallel?

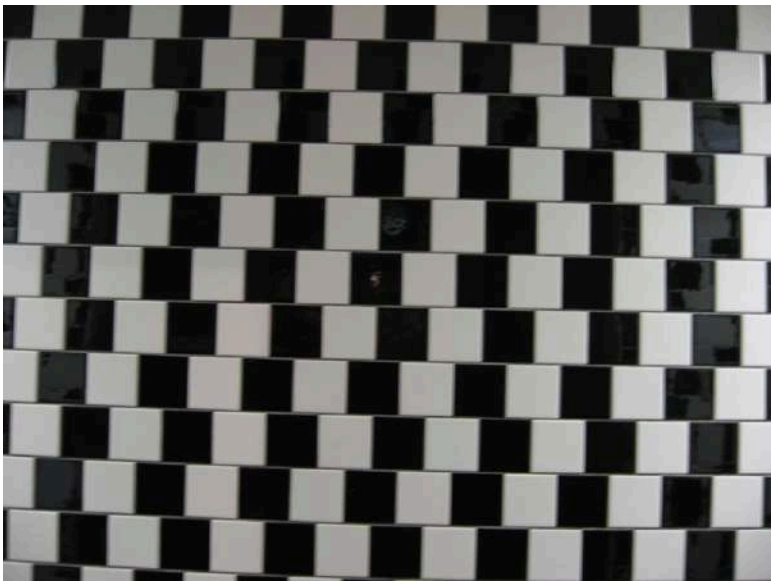

FIGURE 2.3 The horizontal lines on this grid are parallel, but unless you look at the image from the side, it is impossible to "see" this. This is one of many examples of common perceptual illusions. (credit: "Optical Illusion" by Selena N. B. H. CC BY 2.0)

In fact, the horizontal lines are parallel, but unless you look at the image from the side, it is impossible to visualize this. There are countless examples of these types of perceptual illusions. We represent the world outside as a stable picture that is completely filled in, in full focus, and uniformly colored. In reality, our visual field is limited and hazy around the edges, and colors change dramatically depending on lighting conditions, distance, movement, and a host of other factors. In fact, your brain is not passively capturing the world, like a camera, but is actively projecting the world so that it makes sense to you. In the illusion above, your brain is automatically adjusting your perception of the colored squares by accounting for the shadow cast by the cylinder. So your brain presents square B as if it is lighter than A by adjusting the hue of B to account for the shadow.

Neuroscientist David Eagleman (2011) uses the analogy of the front page of a newspaper to describe how perception works. The front page is a representation of the world's events for a given day. Of course, it does not

present a full or complete picture of the world, but a summary intended to highlight the events of consequence, those that have changed, and those that we are most likely to care about. Like a newspaper editor, your brain is working overtime to project an image of the world based on what is relevant to your survival. You unconsciously adjust the images you perceive to give you the impression that they are far away, nearby, moving, and so forth. Instead of the fully formed, three-dimensional image of the world we seem to see, we actually perceive a kind of sketch, highlighting what we need to know to navigate safely in our environment and obtain what we need. You probably think that sense perception is the clearest and most certain way you can know the world around you. As the adage says, "Seeing is believing." To become a better critical thinker, however, you will need to become skeptical of some of your basic beliefs. There are times when you absolutely should not believe your lying eyes.

Emotions and Reason: Homeostasis and Allostasis

In addition to the editorial license of mental representation, thinking is not always as rational as we imagine. The neuroscientist Antonio Damasio (1994) was one of the first to popularize the notion that rational thought is tempered by emotions. He is critical of what he perceives as the philosophical bias against emotion in the history of philosophy. In *Descartes' Error*, he says modern philosophers have neglected the role of emotions in thought, imagining that the goal of rational thinking is to eliminate the influence of emotions. Instead, his years of clinical work with patients revealed to him that emotions cannot be separated from reason. Our most rational thoughts are, in fact, guided, informed, and influenced by emotions. According to Damasio, reasoning and intelligence function best when we care about something. Without feelings, says Damasio, we are less rational, not more rational.

Damasio (1994) explains that emotions serve to maintain **homeostasis** in the brain through the chemical messengers known as neurotransmitters. Homeostasis is the biological tendency to find a neutral state of equilibrium (the word *stasis* means "standing still," and *homeo* means "same or similar"). This process relies on a feedback loop where current bodily states are monitored, observed, and then altered to bring the body back into balance. Most homeostatic processes in the body are unconscious, but emotions are linked to conscious awareness. For instance, when your blood sugar is low and your body needs calories, there is a series of chemical processes that give rise to the feeling of hunger. This is a conscious signal that you need to eat; it promotes behavior that ensures survival. Similarly, a rustling sound in the bushes at night will trigger a series of physiological responses (heightened senses, increased heart rate, pupil dilation, etc.) that correspond to the feeling of fear and promote behavior, such as fight or flight, that are necessary for survival. What Damasio demonstrates is that emotions have their own feedback mechanism, so that an idea or image can generate physiological responses even in the absence of an external stimulus. Because emotional responses and conscious thought are closely linked, decision-making can be influenced by this emotional-physiological feedback mechanism. Our thinking can go astray because we are afraid of bad outcomes, and that fear dominates a more rational calculation about which course of action is most beneficial (1994, 172–175).

In addition to maintaining equilibrium, the brain also anticipates future events and circumstances by projecting likely scenarios based on a catalog of past experiences and concepts generated through social norms and social interactions. The process of regulation that prepares the body to anticipate future needs before they arise is called **allostasis** (*allo* means "other or different"). Psychologist Lisa Feldman Barrett (2017) explains that the brain stores neural pathways that are triggered by external or internal stimuli to provide the closest match to the current situation. The neural pathways form a kind of template of action, promoting behavior like increased heart rate, pupil dilation, or motion. Feelings are a goal-oriented response to certain situations: they prepare us to behave and react in certain ways that promote what is beneficial to the body and sharpen and shape our awareness of the world.

In summary, the brain makes inferences about the world through perceptions, emotions, and concepts that are largely unconscious and deeply ingrained in our psyches. This process allows us to navigate fluidly and accurately through a world with so many and varied stimuli. Our reactions to stimuli are partially homeostatic,

meaning that the body tends to bring itself back into an optimal state of equilibrium, and partially allostatic, meaning that the body prepares for and anticipates future situations. Together, these impulses construct a picture of the world that we experience seamlessly and dynamically. Our experience is far more complicated than the crude mental model we imagine. We are projecting and constructing the world we experience as much as we are recording and viewing it. And that fact has important consequences for the kind of reflective and critical thought we ought to engage in when we try to think clearly about the world.

The Evolutionary Advantage of Shortcuts

Human beings have evolved to navigate the world most effectively and efficiently by engaging conscious awareness only when necessary. For that reason, you can walk through the grocery store while thinking about what you are going to cook for dinner. You do not have to consciously think about where to go, how to slow down to make way for other people, or how hard to push the shopping cart so that it maintains momentum in front of you even as its weight changes as you add groceries to the basket. All that biomechanical activity can be outsourced to unconscious mechanisms as you scan your shopping list. The brain is quite good at engaging in habitual activities without the assistance of conscious thought. And that is a good thing because conscious thought is expensive in energy terms. Consider the picture that follows.

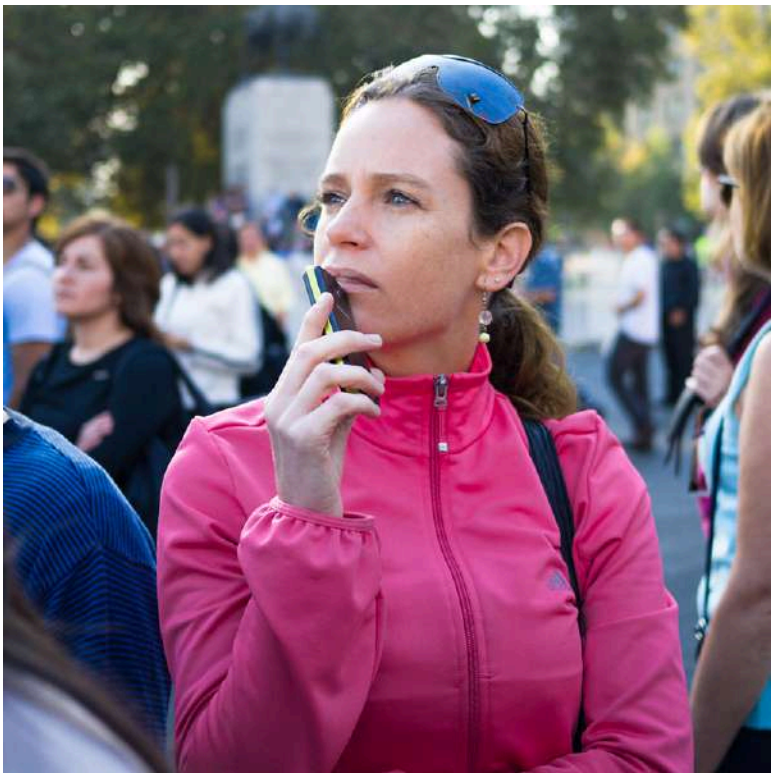

FIGURE 2.4 Many inferences can be made about this woman's inner experience based on her expression and posture. While such inferences can be made quickly, they cannot be verified without further investigation, and they are highly susceptible to error, bias, and stereotyping. (credit: "CL Society 226: Woman with mobile phone" by Francisco Osorio/Flickr, CC BY 2.0)

You are probably immediately able to provide complex inferences about this picture, such as the woman is worried, concerned, or anxious about something. The inferences you make about this image are easy, fast, and complex. They are driven by the kind of emotional and conceptual thought processes that are unconscious and efficient. While these inferences are quick and easy, you may also be aware that they are provisional without more information. Given more data about the circumstances surrounding this picture, you might revise your perception about what is going on. This is exactly the sort of thinking that drives the emotional projections discussed in the previous section.

A different type of thinking is required to solve a math problem. The following example comes from psychologist Daniel Kahneman's book *Thinking Fast and Slow* (2013). Try to solve the following in your head:

$$24 \times 14 =$$

Do you know the answer? For most people, multiplying two-digit numbers without pen and paper (or a calculator) is quite difficult. You might need perhaps 10 or 20 seconds of effortful thinking to solve the problem in your head since you do not have the unconscious mechanisms to do so automatically. Long-term social and evolutionary pressures have shaped our brains to find efficient solutions to complex questions about facial expressions. The same cannot be said for math problems. Knowing the solution to a math problem may be useful, but it is not the sort of thing generally required for survival and reproduction. On the other hand, quickly reading other people's emotions is at times vital for survival. There are other interesting differences between these two kinds of thinking. While it is difficult to solve the math problem, once you solve it, you can be 100 percent certain the answer is correct. By contrast, it is easy to generate a story about facial expressions, but this story is highly susceptible to error, bias, and stereotyping. As a result, critical thinkers should be careful not to jump to the first, most obvious solution.

Energy Demands on Deliberate Thinking

Solving a math problem requires rational thought and effort. When we engage in rational thought, our brains use up precious energy stores that may be required for the maintenance of the body. Because evolutionary pressures seek to keep us alive long enough to pass our genes to the next generation, we have a biological tendency to avoid effortful thinking. In a sense, it is evolutionarily wise to be lazy.

The resources demanded by conscious thought can be understood in terms of the familiar notion of "attention." When a task requires significant attention, it places increased energy demands on the brain. Periods of high-attention activity can be stressful, as the body increases blood flow to the brain, delivering more glucose and oxygen for increased mental activity. Additionally, attention is limited and focused on specific tasks. Consider the "selective attention test" developed by Daniel Simons and Christopher Chabris. Watch the video below and see how you perform on this test.

VIDEO

Selective Attention Test

Click to view content (https://openstax.org/books/introduction-philosophy/pages/2-1-the-brain-is-an-inference-machine)

How many passes did you count? Did you miss anything in the process? When our attention is focused on a novel and complex task, we become less aware of other stimuli outside the specific area of focus. Additionally, we may become fatigued, stressed, or anxious while engaged in paying close attention. Not surprisingly, our brains prefer automated shortcuts.

Heuristics and Learning

Kahneman (2013) calls these mental shortcuts **heuristics**, or rules of thumb for drawing inferences. Problem-solving with heuristics is largely unconscious, automated, effortless, and efficient, but it is not always correct. Rational thinking or computation requires conscious attention and effort and may not even be possible without some practice. We are forced to engage in effortful thinking when confronted with something new and possibly dangerous—or even with something slightly outside of our normal routine. For example, you have probably driven home from work or school along a familiar route on "autopilot," preoccupied with your thoughts. Maybe you have even gotten home and felt as if you cannot remember how you got there. By contrast, you have probably experienced the stress of navigating a new, unfamiliar city. In the first case, navigation can be carried out using easy, largely automatic processing, whereas in the second case, navigation requires the intense resources of active attention and rational calculation.

Sometimes complex activities can become effortless, but unlike when we are on "automatic pilot," such activities feel pleasant and fulfilling. When you become fully immersed in a complex activity to the point at which it becomes effortless, you have entered the state of "flow" (Csikszentmihalyi 2008).

Flow states are possible only for someone who has achieved some level of proficiency at a task. They are characterized by intense concentration and awareness as well as a sense of personal control or agency, but they are pleasurable because the challenge of engaging in the task is commensurate with your ability. By contrast, a novice may find the same tasks stressful and frustrating. This phenomenon can be illustrated using the notion of the "learning curve" that describes how a novice grows in proficiency.

What this means is that a person may be able to rely on intuitions, gut reactions, and other automatic responses in a field in which they are an expert, but the novice should be skeptical of these methods of thinking. As a novice, your mental heuristics are frequently faulty, so you are susceptible to prejudice, implicit bias, and error.

Consider the case of buying a car. Someone who is deeply familiar with the automobile market as either a buyer or a seller may be able to estimate the true value of a car easily, but the average person would need to do a great deal of research to arrive at a true estimate. Because of the effort required for nonexperts to appraise car value, they are easily influenced by dealer incentives, marked-up list prices, financing options, and other tricks of the trade. Given that we are all susceptible to these types of errors, it seems like a good idea to try to become more self-aware and critical and not rely exclusively on gut reactions or intuitions when encountering new material. Since you are probably a novice in philosophy if you are reading this textbook, you ought to be suspicious of your gut reactions to and intuitions about philosophical questions. Keep an open mind, and don't assume you already understand the philosophical problems you will encounter in the chapters that follow. Being open to new ideas and allowing yourself to admit some degree of ignorance are important first steps in becoming a better thinker.

Heuristics and Substitution in Decision-Making

The cognitive biases that we will examine in the next section are based on a more fundamental "substitution heuristic." This term describes our tendency to answer a difficult question or problem by substituting it with an easier question to answer. While substitution often results in an incorrect or inappropriate response, it gives us a sense of satisfaction or "cognitive ease" in thinking we have solved a problem. For instance, when you are asked to evaluate something complex and uncertain, like the future value of an investment or the political prospects of a politician, you are likely to substitute that complex calculation for an easier one. In particular, you may substitute your positive or negative feelings toward the politician or the investment product. But your feelings are likely to be guided by your preconceptions.

When the brain defaults to heuristics that produce a less-than-optimal result or even an incorrect decision, it is operating with a **cognitive bias**. A cognitive bias is a pattern of "quick" thinking based on the "rule of thumb." A person operating under a cognitive bias does not use logic or careful reasoning to arrive at a conclusion. Cognitive biases are like perceptual illusions. Just like perceptual illusions, cognitive biases are the result of the natural and, ordinarily, efficient operation of the brain. Even though mental heuristics often work perfectly well to help give us an estimation of reality without the mental effort required to generate a more comprehensive picture, cognitive biases are the result of misleading and faulty patterns that arise from this process.

2.2 Overcoming Cognitive Biases and Engaging in Critical Reflection

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Label the conditions that make critical thinking possible.
- Classify and describe cognitive biases.
- Apply critical reflection strategies to resist cognitive biases.

To resist the potential pitfalls of cognitive biases, we have taken some time to recognize why we fall prey to them. Now we need to understand how to resist easy, automatic, and error-prone thinking in favor of more reflective, critical thinking.

Critical Reflection and Metacognition

To promote good critical thinking, put yourself in a frame of mind that allows critical reflection. Recall from the previous section that rational thinking requires effort and takes longer. However, it will likely result in more accurate thinking and decision-making. As a result, reflective thought can be a valuable tool in correcting cognitive biases. The critical aspect of critical reflection involves a willingness to be skeptical of your own beliefs, your gut reactions, and your intuitions. Additionally, the critical aspect engages in a more analytic approach to the problem or situation you are considering. You should assess the facts, consider the evidence, try to employ logic, and resist the quick, immediate, and likely conclusion you want to draw. By reflecting critically on your own thinking, you can become aware of the natural tendency for your mind to slide into mental shortcuts.

This process of critical reflection is often called **metacognition** in the literature of pedagogy and psychology. Metacognition means thinking about thinking and involves the kind of self-awareness that engages higher-order thinking skills. Cognition, or the way we typically engage with the world around us, is first-order thinking, while metacognition is higher-order thinking. From a metacognitive frame, we can critically assess our thought process, become skeptical of our gut reactions and intuitions, and reconsider our cognitive tendencies and biases.

To improve metacognition and critical reflection, we need to encourage the kind of self-aware, conscious, and effortful attention that may feel unnatural and may be tiring. Typical activities associated with metacognition include checking, planning, selecting, inferring, self-interrogating, interpreting an ongoing experience, and making judgments about what one does and does not know (Hackner, Dunlosky, and Graesser 1998). By practicing metacognitive behaviors, you are preparing yourself to engage in the kind of rational, abstract thought that will be required for philosophy.

Good study habits, including managing your workspace, giving yourself plenty of time, and working through a checklist, can promote metacognition. When you feel stressed out or pressed for time, you are more likely to make quick decisions that lead to error. Stress and lack of time also discourage critical reflection because they rob your brain of the resources necessary to engage in rational, attention-filled thought. By contrast, when you relax and give yourself time to think through problems, you will be clearer, more thoughtful, and less likely to rush to the first conclusion that leaps to mind. Similarly, background noise, distracting activity, and interruptions will prevent you from paying attention. You can use this checklist to try to encourage metacognition when you study:

- Check your work.
- Plan ahead.
- Select the most useful material.
- Infer from your past grades to focus on what you need to study.
- Ask yourself how well you understand the concepts.
- Check your weaknesses.
- Assess whether you are following the arguments and claims you are working on.

Cognitive Biases

In this section, we will examine some of the most common cognitive biases so that you can be aware of traps in thought that can lead you astray. Cognitive biases are closely related to informal fallacies. Both fallacies and biases provide examples of the ways we make errors in reasoning.

CONNECTIONS

See the chapter on logic and reasoning for an in-depth exploration of informal fallacies.

Watch the video to orient yourself before reading the text that follows.

VIDEO

Cognitive Biases 101, with Peter Bauman
Click to view content (https://openstax.org/books/introduction-philosophy/pages/2-2-overcoming-cognitive-biases-and-engaging-in-critical-reflection)

Confirmation Bias

One of the most common cognitive biases is **confirmation bias**, which is the tendency to search for, interpret, favor, and recall information that confirms or supports your prior beliefs. Like all cognitive biases, confirmation bias serves an important function. For instance, one of the most reliable forms of confirmation bias is the belief in our shared reality. Suppose it is raining. When you first hear the patter of raindrops on your roof or window, you may think it is raining. You then look for additional signs to confirm your conclusion, and when you look out the window, you see rain falling and puddles of water accumulating. Most likely, you will not be looking for irrelevant or contradictory information. You will be looking for information that confirms your belief that it is raining. Thus, you can see how confirmation bias—based on the idea that the world does not change dramatically over time—is an important tool for navigating in our environment.

Unfortunately, as with most heuristics, we tend to apply this sort of thinking inappropriately. One example that has recently received a lot of attention is the way in which confirmation bias has increased political polarization. When searching for information on the internet about an event or topic, most people look for information that confirms their prior beliefs rather than what undercuts them. The pervasive presence of social media in our lives is exacerbating the effects of confirmation bias since the computer algorithms used by social media platforms steer people toward content that reinforces their current beliefs and predispositions. These multimedia tools are especially problematic when our beliefs are incorrect (for example, they contradict scientific knowledge) or antisocial (for example, they support violent or illegal behavior). Thus, social media and the internet have created a situation in which confirmation bias can be "turbocharged" in ways that are destructive for society.

Confirmation bias is a result of the brain's limited ability to process information. Peter Wason (1960) conducted early experiments identifying this kind of bias. He asked subjects to identify the rule that applies to a sequence of numbers—for instance, 2, 4, 8. Subjects were told to generate examples to test their hypothesis. What he found is that once a subject settled on a particular hypothesis, they were much more likely to select examples that confirmed their hypothesis rather than negated it. As a result, they were unable to identify the real rule (any ascending sequence of numbers) and failed to "falsify" their initial assumptions. Falsification is an important tool in the scientist's toolkit when they are testing hypotheses and is an effective way to avoid confirmation bias.

In philosophy, you will be presented with different arguments on issues, such as the nature of the mind or the best way to act in a given situation. You should take your time to reason through these issues carefully and consider alternative views. What you believe to be the case may be right, but you may also fall into the trap of confirmation bias, seeing confirming evidence as better and more convincing than evidence that calls your

beliefs into question.

Anchoring Bias

Confirmation bias is closely related to another bias known as anchoring. **Anchoring bias** refers to our tendency to rely on initial values, prices, or quantities when estimating the actual value, price, or quantity of something. If you are presented with a quantity, even if that number is clearly arbitrary, you will have a hard discounting it in your subsequent calculations; the initial value "anchors" subsequent estimates. For instance, Tversky and Kahneman (1974) reported an experiment in which subjects were asked to estimate the number of African nations in the United Nations. First, the experimenters spun a wheel of fortune in front of the subjects that produced a random number between 0 and 100. Let's say the wheel landed on 79. Subjects were asked whether the number of nations was higher or lower than the random number. Subjects were then asked to estimate the real number of nations. Even though the initial anchoring value was random, people in the study found it difficult to deviate far from that number. For subjects receiving an initial value of 10, the median estimate of nations was 25, while for subjects receiving an initial value of 65, the median estimate was 45.

In the same paper, Tversky and Kahneman described the way that anchoring bias interferes with statistical reasoning. In a number of scenarios, subjects made irrational judgments about statistics because of the way the question was phrased (i.e., they were tricked when an anchor was inserted into the question). Instead of expending the cognitive energy needed to solve the statistical problem, subjects were much more likely to "go with their gut," or think intuitively. That type of reasoning generates anchoring bias. When you do philosophy, you will be confronted with some formal and abstract problems that will challenge you to engage in thinking that feels difficult and unnatural. Resist the urge to latch on to the first thought that jumps into your head, and try to think the problem through with all the cognitive resources at your disposal.

Availability Heuristic

The **availability heuristic** refers to the tendency to evaluate new information based on the most recent or most easily recalled examples. The availability heuristic occurs when people take easily remembered instances as being more representative than they objectively are (i.e., based on statistical probabilities). In very simple situations, the availability of instances is a good guide to judgments. Suppose you are wondering whether you should plan for rain. It may make sense to anticipate rain if it has been raining a lot in the last few days since weather patterns tend to linger in most climates. More generally, scenarios that are well-known to us, dramatic, recent, or easy to imagine are more available for retrieval from memory. Therefore, if we easily remember an instance or scenario, we may incorrectly think that the chances are high that the scenario will be repeated. For instance, people in the United States estimate the probability of dying by violent crime or terrorism much more highly than they ought to. In fact, these are extremely rare occurrences compared to death by heart disease, cancer, or car accidents. But stories of violent crime and terrorism are prominent in the news media and fiction. Because these vivid stories are dramatic and easily recalled, we have a skewed view of how frequently violent crime occurs.

Tribalism

Another more loosely defined category of cognitive bias is the tendency for human beings to align themselves with groups with whom they share values and practices. The tendency toward **tribalism** is an evolutionary advantage for social creatures like human beings. By forming groups to share knowledge and distribute work, we are much more likely to survive. Not surprisingly, human beings with pro-social behaviors persist in the population at higher rates than human beings with antisocial tendencies. Pro-social behaviors, however, go beyond wanting to communicate and align ourselves with other human beings; we also tend to see outsiders as a threat. As a result, tribalistic tendencies both reinforce allegiances among in-group members and increase animosity toward out-group members.

Tribal thinking makes it hard for us to objectively evaluate information that either aligns with or contradicts the beliefs held by our group or tribe. This effect can be demonstrated even when in-group membership is not

real or is based on some superficial feature of the person—for instance, the way they look or an article of clothing they are wearing. A related bias is called the **bandwagon fallacy**. The bandwagon fallacy can lead you to conclude that you ought to do something or believe something because many other people do or believe the same thing. While other people can provide guidance, they are not always reliable. Furthermore, just because many people believe something doesn't make it true. Watch the video below to improve your "tribal literacy" and understand the dangers of this type of thinking.

VIDEO

The Dangers of Tribalism, Kevin deLaplante

Click to view content (https://openstax.org/books/introduction-philosophy/pages/2-2-overcoming-cognitive-biases-and-engaging-in-critical-reflection)

Sunk Cost Fallacy

Sunk costs refer to the time, energy, money, or other costs that have been paid in the past. These costs are "sunk" because they cannot be recovered. The **sunk cost fallacy** is thinking that attaches a value to things in which you have already invested resources that is greater than the value those things have today. Human beings have a natural tendency to hang on to whatever they invest in and are loath to give something up even after it has been proven to be a liability. For example, a person may have sunk a lot of money into a business over time, and the business may clearly be failing. Nonetheless, the businessperson will be reluctant to close shop or sell the business because of the time, money, and emotional energy they have spent on the venture. This is the behavior of "throwing good money after bad" by continuing to irrationally invest in something that has lost its worth because of emotional attachment to the failed enterprise. People will engage in this kind of behavior in all kinds of situations and may continue a friendship, a job, or a marriage for the same reason—they don't want to lose their investment even when they are clearly headed for failure and ought to cut their losses.

A similar type of faulty reasoning leads to the **gambler's fallacy**, in which a person reasons that future chance events will be more likely if they have not happened recently. For instance, if I flip a coin many times in a row, I may get a string of heads. But even if I flip several heads in a row, that does not make it more likely I will flip tails on the next coin flip. Each coin flip is statistically independent, and there is an equal chance of turning up heads or tails. The gambler, like the reasoner from sunk costs, is tied to the past when they should be reasoning about the present and future.

There are important social and evolutionary purposes for past-looking thinking. Sunk-cost thinking keeps parents engaged in the growth and development of their children after they are born. Sunk-cost thinking builds loyalty and affection among friends and family. More generally, a commitment to sunk costs encourages us to engage in long-term projects, and this type of thinking has the evolutionary purpose of fostering culture and community. Nevertheless, it is important to periodically reevaluate our investments in both people and things.

In recent ethical scholarship, there is some debate about how to assess the sunk costs of moral decisions. Consider the case of war. Just-war theory dictates that wars may be justified in cases where the harm imposed on the adversary is proportional to the good gained by the act of defense or deterrence. It may be that, at the start of the war, those costs seemed proportional. But after the war has dragged on for some time, it may seem that the objective cannot be obtained without a greater quantity of harm than had been initially imagined. Should the evaluation of whether a war is justified estimate the total amount of harm done or prospective harm that will be done going forward (Lazar 2018)? Such questions do not have easy answers.

Table 2.1 summarizes these common cognitive biases.

Bias	Description	Example
Confirmation bias	The tendency to search for, interpret, favor, and recall information that confirms or supports prior beliefs	As part of their morning routine, a person scans news headlines on the internet and chooses to read only those stories that confirm views they already hold.
Anchoring bias	The tendency to rely on initial values, prices, or quantities when estimating the actual value, price, or quantity of something	When supplied with a random number and then asked to provide a number estimate in response to a question, people supply a number close to the random number they were initially given.
Availability heuristic	The tendency to evaluate new information based on the most recent or most easily recalled examples	People in the United States overestimate the probability of dying in a criminal attack, since these types of stories are easy to vividly recall.
Tribalism	The tendency for human beings to align themselves with groups with whom they share values and practices	People with a strong commitment to one political party often struggle to objectively evaluate the political positions of those who are members of the opposing party.
Bandwagon fallacy	The tendency to do something or believe something because many other people do or believe the same thing	Advertisers often rely on the bandwagon fallacy, attempting to create the impression that "everyone" is buying a new product, in order to inspire others to buy it.
Sunk cost fallacy	The tendency to attach a value to things in which resources have been invested that is greater than the value those things actually have	A business person continues to invest money in a failing venture, "throwing good money after bad."
Gambler's fallacy	The tendency to reason that future chance events will be more likely if they have not happened recently	Someone who regularly buys lottery tickets reasons that they are "due to win," since they haven't won once in twenty years.

TABLE 2.1 Common Cognitive Biases

THINK LIKE A PHILOSOPHER

As we have seen, cognitive biases are built into the way human beings process information. They are common to us all, and it takes self-awareness and effort to overcome the tendency to fall back on biases. Consider a time when you have fallen prey to one of the five cognitive biases described above. What were the circumstances? Recall your thought process. Were you aware at the time that your thinking was misguided? What were the consequences of succumbing to that cognitive bias?

Write a short paragraph describing how that cognitive bias allowed you to make a decision you now realize was irrational. Then write a second paragraph describing how, with the benefit of time and distance, you would have thought differently about the incident that triggered the bias. Use the tools of critical reflection and metacognition to improve your approach to this situation. What might have been the consequences of behaving differently? Finally, write a short conclusion describing what lesson you take from reflecting back on this experience. Does it help you understand yourself better? Will you be able to act differently in the future? What steps can you take to avoid cognitive biases in your thinking today?

2.3 Developing Good Habits of Mind

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Define epistemic humility and the Dunning-Kruger effect.
- Identify three strategies to increase the ability to think objectively.
- Analyze emotional responses to information.

One of the ways to respond to cognitive biases is to develop good habits of mind. There are no quick fixes or easy solutions to cognitive biases. Remember, these biases are a result of the way the brain works. Nevertheless, metacognition and critical reflection, as well as good mental habits, can help combat these natural tendencies in thought that otherwise leads us astray. The strategies outlined below can help you become a better philosopher. You should compare them with the methods philosophers use to arrive at truth, covered in Chapter 1.

CONNECTIONS

See the introduction to philosophy chapter to learn more about how philosophers arrive at the truth.

Strive for Objectivity

We are likely to assume that our experience or our perspective is generally true for others. To be more objective in thinking about issues, problems, or values, we should actively engage in strategies that remove us from our naturally subjective mindset. In this section, we will explore several strategies for approaching philosophical problems with less subjective bias.

Abstract from Specific Circumstances

Most people's point of view is based on generalizing from their specific circumstances and experiences. However, if your view of morality, consciousness, or free will is tied to notions that come from a specific time or location, then your view is not likely to be objective. Your personal experience has limitations when it comes to understanding what is going on in the world at large. To arrive at more general and representative notions, use your imagination to separate the specific properties of your experience from your worldview. This process of abstraction can make the concept appropriately general. For instance, if you wish to imagine a governing arrangement among citizens, you will probably default to the governmental organizations you are familiar with in your community, state, or nation. But these institutions differ from the way government works in other countries or in different eras of history. So when you think about justice in political organizations, it is important to imagine those not limited by your personal experience, moment in history, or location.

In some cases, however, the specific features of your experience are indispensable to the philosophical position you wish to take. In such instances, your specific experience provides critical information that needs to be preserved. For example, the prevailing views in philosophy as well as any other subject are biased in that they reflect the views of the dominant cultural group who wrote the texts. If you are a person who belongs to a nondominant or minority group or a group that has been historically marginalized, your personal experience may shed new light on a problem. In such cases, specific experience can help you, as well as others, reshape the general view so that it is more comprehensive and inclusive. In these cases, abstracting from the particular circumstances may not be useful.

Promote Alternative Points of View

Actively considering points of view contrary to your own is most useful in political or ethical areas of philosophy. But a similar strategy may also be useful in metaphysics or epistemology. For instance, when considering issues in metaphysics, you may believe that parts of experience—like consciousness, God, or free will—cannot be explained by the natural sciences. Or, conversely, you may think there is a scientific

explanation for everything. When considering these views philosophically, try to actively promote the alternative point of view. Sometimes this strategy is called **steelmanning** the opposing argument. When you steelman an argument, you make the strongest possible case in favor of it. This is the opposite of strawmanning an argument, in which you construct a weaker version of the argument to easily defeat it. You may be tempted to strawman arguments you naturally disagree with, but you will become a better philosopher when you steelman those arguments instead.

CONNECTIONS

Learn more about the strawman fallacy in the chapter on logic and reasoning.

Identify Counterexamples

Generating counterexamples is an effective way to test your own or others' claims. A counterexample is an instance that renders an argument invalid by satisfying all the premises of the claim but demonstrating the conclusion is false. Suppose someone wants to argue that the only legitimate way to know something is to have direct experience of it. To produce a counterexample to this claim, we must imagine something that everyone knows is true but that would be impossible to experience directly. Here is an example: I know my mother was born. Clearly, given that I was born, I had a mother, and she, too, must have been born to have given birth to me. My mother's birth necessarily preceded my birth by many years, so it would be impossible for me to have any direct experience of my mother's birth. And yet, just as surely as I know I was born, I know that my mother was born. Counterexamples are powerful tools to use in evaluating philosophical arguments. If you practice using this tool, you will become a better critical thinker.

CONNECTIONS

See the section on counterexamples in the chapter on logic and reasoning for more discussion of this topic.

Maintain Skepticism of Strong Emotions

While emotions play an important role in thinking, they can also cloud judgment. Strong reactions to claims made by philosophers, other students, your professor, or anyone else may prevent you from considering the argument objectively. You should be wary of any strong attachment or aversion you feel toward a philosophical claim. Emotions can guide us, but they may threaten our ability to objectively consider the arguments being made.

To respond to strong emotions, use the tools of metacognition to reflect on the source of those emotions and attempt to manage them. There may be good reasons for your emotions, but recognize that those reasons, not the emotions themselves, are philosophically relevant. Manage emotions by taking a step back from your personal investment in the issue and considering it from another perspective. Sometimes a short break can allow the immediate emotional reaction to subside. Sometimes imaginative strategies can help; for example, substitute the features of the problem that trigger strong emotions for features that are more neutral. This advice is not to suggest that emotions are harmful or have no place in philosophical thinking. Instead, the purpose of this strategy is to remind you that the way to derive meaning and guidance from your emotions is to reflect on them and think through the causes, origins, or reasons for the emotions.

Adopt Epistemic Humility

A final concept that is a critical component for becoming a better critical thinker is adopting a stance of **epistemic humility**. As we have already seen, our thinking can be clouded by cognitive biases. Additionally, our perspective on the world is always colored by our own experience and rooted in the particular place and time in which we live. Finally, even our best scientific knowledge of the universe explains only a fraction of it, and perhaps even less of our own experience. As a result, we should recognize these limitations of human

knowledge and rein in our epistemic confidence. We should recognize that the knowledge we do possess is fragile, historical, and conditioned by a number of social and biological processes.

FIGURE 2.5 The principle of epistemic humility calls upon us to recognize that the knowledge we possess is fragile, fallible, and colored by our own experiences. (credit: "Life is a long lesson in humility." by e.r.w.i.n./Flickr, CC BY 2.0)

Question Yourself: Do I Really Know What I Think I Know?

We retain all sorts of beliefs from many different sources: memory, testimony, sense perception, and imagination. Some of these sources may be reliable, while others may not. Often, however, we forget the source of our beliefs and claim to "know" something simply because we have believed it for a long time. We may become very confident in believing something that never happened or did not happen in the way we remember it. In other cases, we may have been told something repeatedly, but the ultimate source of that information was unreliable. For instance, most people recommend wearing warm clothes outside when the temperature drops so that they do not "catch a cold." This is the sort of wisdom that may have been passed down through generations, but it makes little sense from a medical standpoint. There are not many ways that getting a chill or even lowering the body temperature will lead to a respiratory infection. Colds are caused by viruses, not by a drop in temperature. Without thinking through the source of the belief that "if you get cold, you may catch a cold," you end up believing something that is not true.

Be Aware of the Dunning-Kruger Effect

An even more pernicious form of epistemic overconfidence is revealed in the psychological phenomenon known as the **Dunning-Kruger effect**. David Dunning and Justin Kruger demonstrated a widespread illusion in which incompetent people or novices rate their own knowledge of a subject more highly than they ought to, while highly competent people or experts rate their knowledge slightly lower than they ought to. These findings do not mean that the experts considered themselves to be less competent than novices. In fact, experts are fairly accurate in rating their own knowledge. However, they tend to assume that everyone else has a similar level of expertise. By contrast, novices consider themselves to be far more competent in comparison to others and misrepresent their own incompetence, which can be a dangerous in many situations.

The lesson from the Dunning-Kruger effect is that you should be extremely wary when assessing your expertise about anything, but especially about something that is a new area of learning for you. The reality is that your intuitive sense of your own knowledge is likely to be inaccurate. It takes time to build expertise in a subject area, and the expert is more capable of assessing their own knowledge accurately.

2.4 Gathering Information, Evaluating Sources, and Understanding Evidence

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify four moves for fact-checking.
- Apply fact-checking to specific exercises.

Start with a Strong Foundation

When you are learning a new concept or writing a paper, you probably do some internet research to locate information about the topic. However, as you probably know, not all internet sources are reliable. Philosophy students are fortunate to have two online philosophy encyclopedias that provide excellent information about a wide array of topics. The *Internet Encyclopedia of Philosophy* (https://openstax.org/r/ieputmedu) provides good general topic coverage of the major areas of philosophy. The IEP is a traditional encyclopedia, and its articles are written for new students without a lot of prior knowledge. The *Stanford Encyclopedia of Philosophy* (https://openstax.org/r/platostanford) provides in-depth, up-to-date articles on a wide range of topics and includes both general and specific coverage. The articles in the *Stanford Encyclopedia of Philosophy* are well written, but they typically go into greater depth and sometimes include technical terms or information you will have to look up. These articles provide an excellent, free introduction to a wide range of specific topics in philosophy. As with all encyclopedia entries, students should start with the article itself and then move on to sources cited in the article. Think of these articles as an entry point into research.

Wherever possible, read articles and books written by philosophers on the topics you are interested in. You can usually find these resources at your college or university library. You may want to cast a wider net on the internet itself by tapping into YouTube channels, podcasts, and other websites that can help you understand philosophical issues or provide information for philosophy papers. However, be discriminating when selecting material. In this section, we will outline some tools and habits that can make you a better, more critically engaged online researcher.

Finally, many instructors in philosophy will encourage their students to engage only with the assigned texts in the class. This can be a valuable technique for learning philosophy since philosophical thinking is cultivated by serious, critical engagement with good philosophical writing. If you can learn to engage directly with primary sources (texts written by philosophers about philosophy), you will be a better philosophy student. However, we acknowledge that most students are accustomed to using the internet for research when they are learning something new. So this section is intended to provide some guidance for students who want to supplement their class readings with information gleaned from online sources.

The SIFT Method (Four Moves for Student Fact Checkers)

Information literacy scholar Michael Caulfield came to realize that the methods of research taught by librarians and information literacy educators often did not work well for students. Typically, students are encouraged to assess the quality of information using an acronym like CRAAP: currency, relevancy, authority, accuracy, and purpose. But these criteria are not always useful in spotting misinformation turned up through search engines. After all, many sources that provide misinformation appear current and relevant and are generated by organizations that appear to be authoritative while they conceal a hidden agenda.

To find out how students evaluate sources they find on Google, Caulfield relies on the empirical research of Sam Wineburg and Sarah Mcgrew (2016). The researchers compared the behavior of Stanford University students to trained fact-checkers at newspapers and magazines. Not surprisingly, the online fact-checkers used search engines more effectively. Based on this research, Caulfield developed his own protocol to make students better researchers.

The first thing to know about using a search engine like Google is that results are not ranked by authority, accuracy, or relevance. Internet companies are notoriously secretive about the algorithms (mathematical

procedural rules) they use to generate search engine results, but we know that they prioritize paid advertisements, popularity, and web interconnectivity (the degree to which key words and links from a website are shared with other websites). Thus, websites interested in sharing misinformation can use the same search engine optimization tools that legitimate companies or media sources use to move up the ranks of search results. So you need to learn to use the search engine to your advantage. Caulfield recommends using the acronym SIFT, or the "four moves" of student fact checkers.

FIGURE 2.6 The four moves for student fact checkers: stop; investigate the source; find better coverage; and trace the claims to the original context. (credit: "SIFT (The Four Moves)" by Michael Caulfield/hapgood.us, CC BY 4.0)

Stop

The first move reiterates something we have already discussed: to become a better critical thinker, slow down the quick and efficient thinking that leads to errors and engage in critical reflection and metacognition. By stopping, slowing down, or taking your time to allow for critical reflection, you will be using rational and reflective thinking to assess claims. Additionally, after some searching, you will want stop, return to your original source, and check its claims again. When you circle back after going down a bit of a rabbit hole, you will have a new perspective from which to evaluate these claims.

Investigate the Source

Next, investigate the source of your information. Internet searches will often lead you through a series of links, in which you jump from one document to another. Strive to understand this electronic paper trail. Who wrote each document? What are their credentials? You can prioritize academic sources, such as web pages of philosophy faculty members, and you can discount sites that aggregate student papers or provide content without clear authorship. But investigating authorship does not mean that you should just read the "About" page on a website. Rather, Wineburg and Mcgrew (2016) found that fact-checkers used search tools to check the reputation of the sites they were investigating, a move they called "reading laterally." You do not have to spend a lot of time on the site itself. Instead, search reviews or critiques of the website and the authors on the site. Find out what other authoritative sources say about the site. Is this a website that is approved by other people you trust? Or do people you trust indicate that the website or its information are questionable?

Find Better Coverage

Check the claims and information on the site you are reading. What do other sources say about the same information? Is there other coverage on the same topic? This move is particularly important for controversial claims you might find on social media, where the original source is frequently obscured. Is this information being covered elsewhere, and does the coverage agree with what you have read? This move can help in evaluating your original source or gaining familiarity with the claims being made. If the claims by one source do not match up with what you are reading elsewhere, be skeptical.

Trace Claims, Quotes, and Media to the Original Context

Frequently, claims made on the internet are divorced from their original context. It is important to trace those claims back to the original source. This advice holds for online research in philosophy. You may discover a claim or quote about a philosopher that lacks context. To evaluate the claim, you need its original context, which will reveal whether the claim or quote was mischaracterized or portrayed in a misleading way. Look for citations, and then follow those citations to the original publication. If the source you have found does not have citations, then you will need to search key terms or phrases in quotation marks to see if you can locate the claim or quote using another method. Good academic sources ought to provide citations so you can verify the original source of the claim. If it is hard to verify a claim or quote, that should be a red flag to not trust the source making those claims or providing those quotes.

THINK LIKE A PHILOSOPHER

Here are three examples of claims made online. Use the four moves to assess whether these claims are true. You have been provided with a screen capture of a headline, so you do not have links back to a website. Therefore, use search tools on the web to verify the claims being made. In each case, find a source that either verifies or debunks the claim. The source you use to verify or debunk the claim should be reputable and authoritative.

Mexico's Border Wall

This post claims to be picture of fencing from Mexico's southern border. Is the photo accurate? Is this an image of Mexico's southern border? Has the Mexican government constructed a wall to prevent the flow of migrants from across its southern border?

FIGURE 2.7 This social media image claims to show a wall Mexico constructed on its southern border. (credit: "Mexico's Border Wall?" by Michael Caulfield/fourmoves.blog, CC BY 4.0)

Smart Toilet?

This image was shared on the web. Is it a real product or satire?

FIGURE 2.8 This web headline about Kohler's smart toilet, under the heading "Smart Home," suggests that Kohler's has invented a smart toilet that uses Alexa. (credit: "Alexa Smart Toilet" by Michael Caulfield/fourmoves.blog, CC BY 4.0)

Drilling Stonehenge?

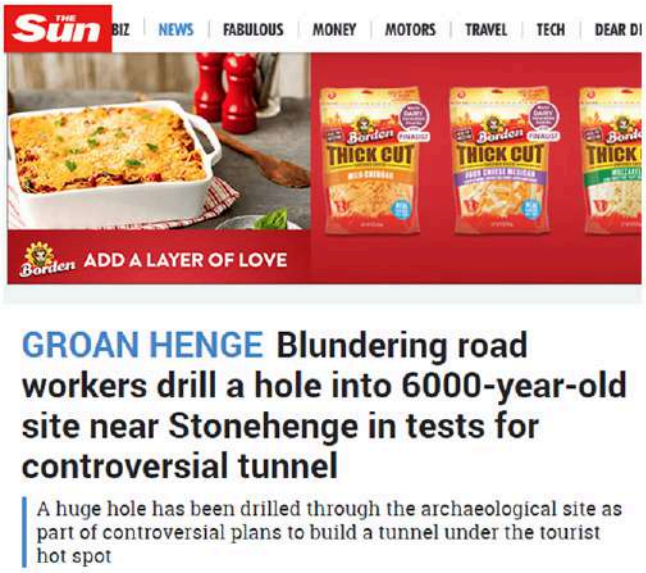

FIGURE 2.9 This newspaper headline claims that engineers drilled a hole into Stonehenge as part of a controversial tunnel project. (credit: "Stonehenge damaged by blundering engineers?" by Michael Caulfield/fourmoves.blog, CC BY 4.0)

2.5 Reading Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Describe strategies for reading philosophy.
- Distinguish the goals of philosophical reading from other types of reading.
- Employ a three-part method for reading philosophy.

To be successful in a philosophy course, you must be able to read primary and secondary sources in philosophy. Many students in their first philosophy class struggle with the required readings. You may find yourself rereading a passage several times without having a clear notion of what the author is trying to say. Or you may get lost in the back-and-forth of arguments and counterarguments, forgetting which represent the author's opinion. This is a common problem. Using the strategies described below, you can track the key claims and arguments in your reading. Eventually, you will reach the point where you can begin to reflect on, evaluate, and engage with the philosophical concepts presented.

Prepare to Read

Preparing your reading space will help you focus and improve the chances of retaining the reading material. Read at a table with a comfortable chair instead of on a couch or in a bed. Sitting up straight improves concentration. Have something to drink nearby, and avoid distractions, like TV or music with lyrics. Some people find it helpful to have a little bit of bustle around them (for example, you might choose to work in a café or library), while others find this distracting. Some people like music; others prefer silence. Find the setting that helps you concentrate.

Next, choose an annotation tool. You will need to write notes, underline, and flag portions of the reading, so use text you can alter whenever possible. If you are working with a printed text, use a pencil so that you can erase and rewrite notes in the margin. Many students use highlighters when reading text, but readers have a tendency to highlight too much, which makes the highlighting useless when you go back and reread. A better system is to write marginal notes or markers to flag and identify key passages. You can devise a simple coding system using symbols to identify different parts of a text: for example, main ideas or topics, examples, arguments, references to other philosophers, questions, and quotations to use in papers. If you are working with a digital text, there are many tools you can use to write notes and place markers in the text. OpenStax provides a useful annotation tool for its web-based textbooks, allowing you to create notes that link passages and even to review your notes all together. The purpose of annotation is to create a visual trail you can come back to for easy tracking of an argument. This will ensure you do not need to reread large portions of the text to find key information for studying or writing a paper. Annotations allow you to move quickly through a text, identifying key passages for quotes or citations, understanding the flow of the argument, and remembering the key claims or points made by the author.

Engaging with Philosophical Texts

The purpose of philosophical writing is to engage the reader in a sequence of thoughts that either present a problem to be considered, prompt reflection on previous ideas and works, or lead to some insight or enlightenment. Philosophy consists of ideas and arguments. Your goal is to engage with those ideas and arguments to arrive at your own understanding of the issues. You may critically engage with the author, or you may have your perspective changed by reading the author. In either case, your goal ought to be to reach a new understanding. This is somewhat different from writing in most other disciplines, in which the purpose may be to convey information, evoke emotions, tell a story, or produce aesthetic enjoyment. While engaging with philosophical ideas can be pleasurable and may involve understanding some basic information, the primary purpose of the writing is to engage thought and reflection. This means that you should read the work as fast or slow as you need to engage thoughtfully with it. The speed of reading will depend on how quickly you grasp the ideas and arguments presented or how familiar you are with the claims being made. It is not as important to read sequentially for plot or narrative; much more important is to follow the sequence of ideas and arguments. Consequently, it may make sense to cross-reference passages, jumping from one section to another to compare claims, and link ideas that appear in different places in the text.

Philosophical Methods at Work

Look for philosophical methods at work in your readings. Recall that philosophers use a variety of methods to arrive at truth, including conceptual analysis, logic, and the consideration of trade-offs. Philosophers may also

draw on a variety of sources of evidence, including history, intuition, common sense, or empirical results from other disciplines or from experimental philosophy. In any case, most philosophical works will be attempting to develop a position through argumentation. Sources of evidence will be used to bolster premises for the purpose of reaching a desired conclusion. Additionally, the author may use a variety of methods to make an argument. If you can identify these methods, strategies, and sources of evidence, you will be able to better evaluate the text.

The Principle of Charity

The **principle of charity** is an interpretative principle that advises the reader to interpret the author's statements in the most rational and best way possible. Sometimes a philosopher's argument may be unclear or ambiguous. For example, philosophers from older historical periods may use terminology and expressions that are difficult for a modern reader to understand. In these cases, the reader should start from the assumption that the author is putting forward a rational, thoughtful view. The reader's goal should be to understand that view in the best light possible. This does not mean that you should ignore difficulties or avoid criticizing the author. Rather, when you encounter difficulties, look for an interpretation that makes the most sense of what the author is saying. All the primary- and secondary-source authors you will read are smart, thoughtful people. Therefore, assume the author has a response to simple or obvious objections, and look for that response. Try to understand the work on its own terms, and then critically engage with the best version of that work.

Working with the Dialectic

The dialectical process that is common to many philosophical writings is initially confusing for many students. **Dialectic**, a method for discovering truth through dialogue, involves an exchange of ideas with the goal of arriving at a position that more accurately reflects the truth. In practical terms, philosophers will frequently move back and forth between the view they are advancing and competing views that they may or may not support. These alternative views may provide criticisms, or they may represent views that are common in philosophy. The author's goal is to present alternative perspectives—in addition to their own—to demonstrate the range of perspectives on the problem. If one view emerges through this dialectical process, there is a greater chance that it has some share of the truth since it has survived the criticisms and contrary opinions of others.

When reading a philosophical work that uses a dialectical method, pay attention to tracking different strands of argument. Do not assume that every argument or claim in what you are reading is the considered opinion of the author. Rather, various claims may represent contrasting views that will eventually be rejected. Track the back-and-forth between views to grasp the thread of argument that the author endorses.

FIGURE 2.10 Find a comfortable place to do your philosophy readings. (credit: "Woman sitting in the forest and reading a book, autumn rest" by Marco Verch/Flickr, CC BY 2.0)

Pre-reading

Start your reading with a pre-read. This is a very useful practice when tackling academic works. So much information can be learned simply by reviewing the surrounding features of the article, book, or chapter. Spend some time reviewing these elements to grasp the context for what you are about to read. Start with these elements.

Title, Author, and Publication

What does the title and author tell you about the work? When was it written? Who has published the text—an academic press or a popular press? If you do not know this information, you may want to do some preliminary internet searches to try to find out. Where does this work fit into the author's broader body of work? What can you learn or what do you know about the author? What are the author's main contributions to philosophy?

Table of Contents and Bibliography

Develop a mental outline for the work by looking carefully at the table of contents, usually at the front of the book. For a shorter work, scan through the article, looking for section headings and breaks. If the headings are labeled, you may have enough information to track the general flow of the article just by reading them. If the headings are not helpful or there are no headings, quickly skim the first and last paragraph, and pick out topic sentences or words that indicate what individual paragraphs are about to get a sense of where the overall argument is going.

At this stage, you want to look at the bibliography or references. Depending on the length and style of the work, the reference list may be very long. As a novice, you may not be able to get much information from a bibliography, but as you become more familiar with your subject, you will get a sense from titles and authors in the bibliography about the perspective that informs this author's writing.

First Read

You may need to read material more than once to become engaged in critical reflection. However, because you are planning to do multiple readings, do not linger too long on the first read. Move quickly and purposefully through the material with the goal of understanding the flow of the argument. Use the information you gleaned from pre-reading to fill in gaps in knowledge where possible, and flag places for follow-up.

Identify Key Claims

During the first read, you should identify the key claims in the text. In a traditional academic article, these

claims ought to be highlighted in the introduction or abstract. In a book or historical work, these key claims may be harder to find. Look for sentences that introduce claims with expressions such as, "I aim to show," "What this chapter will demonstrate," or "The purpose of this work is." Mark key claims so that you can come back to them easily. Ask yourself what the author is trying to say; what does the author hope the reader will take away from reading?

Identify Sources of Evidence and Methods of Argument

Look for the evidence the author is providing to support the key claims. What methods does the author use to generate this evidence? Is the author using logical argumentation? Are there thought experiments or other forms of conceptual analysis? Does the author provide empirical evidence to back up the claims? In the best-case scenario, evidence will be provided shortly before or after the claim is announced. However, sometimes evidence and claims are mixed together. During this stage, try to flag the dialectic in the argument. Is the author presenting their own view, a rival view, a criticism, or a supporting view?

Flag for Follow-Up

Use annotation flags to chart the course of the argument and claims being made. Use a simple notation system that works for you. But you should consider flagging things like thesis, definition, claim, evidence, argument, question, counterargument, objection, response, and so forth. Flagging should also be used to identify words or ideas you do not understand. When you are moving quickly, you may ask questions that you later understand, or you may flag something incorrectly and need to revise your notes. This is fine. You are engaged in a process of gradually becoming acquainted with the text.

Close Read

At this stage, you will read for thoughtful engagement with the ideas and arguments presented in the text. Now is when you critically reflect on, evaluate, and understand the author's writing.

At this point, you should not move any more quickly than you can think alongside the author. Use this time to follow up on questions you posed during flagging. Look up terms; do some research on concepts you do not understand. You do not need to understand the article perfectly, but you should understand it well enough to think about it. If you have a good understanding of what you read, you will have something to say about the material after you finish reading it.

Reading slowly and actively involves asking the author questions: How does this claim follow from that one? Where is the evidence to support this assertion? Is the evidence adequate to support the claim being made? What are the implications of this claim? How does this idea fit with the overall emphasis on some other set of ideas? If something in the text does not sit well with you, try to articulate what is bothering you. Write a short objection in the margin. Even if you are not sure, try to work out why you do not agree with the author. The more you can articulate your concerns and think through your own reactions, the more you will understand the material and your own reaction to it.

The close reading is intended to prepare you for talking and writing about the author's work. That means you are preparing yourself to do philosophy alongside and with the author. Hold yourself to the same standards to which you hold the author. Provide reasons for your claims, support your opinions with adequate evidence, and consider possible objections.

READ LIKE A PHILOSOPHER

Identify a reading from Chapter 1 (or another introductory reading from this course). This exercise will work best if the reading is a fairly short, primary source reading from someone who is doing philosophy. Follow the three-step method for reading:

- Pre-read
- Fast read with flagging
- Close read and revise flagging

Consider the following prompts in writing a short review of the article (no more than two paragraphs in length):

- Provide a brief synopsis of the argument and dialectical structure of the text.
- What are the primary claims that the author makes?
- What evidence does the author provide to support those claims?
- What methods does the author use to generate evidence or make arguments?
- Is the evidence adequate to support the claims the author makes?
- Where do you think the evidence falls short?
- Do you agree with the author's claims?
- Where do you disagree, and why?

When you are writing philosophy papers, you should plan the structure of your argument in advance, spend time thinking about a thesis, and focus on an achievable aim relative to the length of your paper.

2.6 Writing Philosophy Papers

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify and characterize the format of a philosophy paper.
- Create thesis statements that are manageable and sufficiently specific.
- Collect evidence and formulate arguments.
- Organize ideas into a coherent written presentation.

This section will provide some practical advice on how to write philosophy papers. The format presented here focuses on the use of an argumentative structure in writing. Different philosophy professors may have different approaches to writing. The sections below are only intended to give some general guidelines that apply to most philosophy classes.

Identify Claims

The key element in any argumentative paper is the claim you wish to make or the position you want to defend. Therefore, take your time identifying claims, which is also called the thesis statement. What do you want to say about the topic? What do you want the reader to understand or know after reading your piece? Remember that narrow, modest claims work best. Grand claims are difficult to defend, even for philosophy professors. A good thesis statement should go beyond the mere description of another person's argument. It should say something about the topic, connect the topic to other issues, or develop an application of some theory or position advocated by someone else. Here are some ideas for creating claims that are perfectly acceptable and easy to develop:

- Compare two philosophical positions. What makes them similar? How are they different? What general lessons can you draw from these positions?
- Identify a piece of evidence or argument that you think is weak or may be subject to criticism. Why is it weak? How is your criticism a problem for the philosopher's perspective?
- Apply a philosophical perspective to a contemporary case or issue. What makes this philosophical position applicable? How would it help us understand the case?
- Identify another argument or piece of evidence that might strengthen a philosophical position put forward by a philosopher. Why is this a good argument or piece of evidence? How does it fit with the philosopher's other claims and arguments?
- Consider an implication (either positive or negative) that follows from a philosopher's argument. How does

this implication follow? Is it necessary or contingent? What lessons can you draw from this implication (if positive, it may provide additional reasons for the argument; if negative, it may provide reasons against the argument)?

THINK LIKE A PHILOSOPHER

The following multiple-choice exercises will help you identify and write modest, clear philosophical thesis statements. A thesis statement is a declarative statement that puts forward a position or makes a claim about some topic.

1. Which of the following is a declarative statement that puts forward a position or claim?
a. How does Aristotle think virtue is necessary for happiness?
b. Is happiness the ultimate goal of human action?
c. Whether or not virtue is necessary for happiness.
d. Aristotle argues that happiness is the ultimate good of human action and virtue is necessary for happiness.

2. Which of the following declarative statements goes beyond mere description?
a. René Descartes argues that the soul or mind is the essence of the human person.
b. Descartes shows that all beliefs and memories about the external world could be false.
c. Some people think that Descartes is a skeptic, but I will show that he goes beyond skepticism.
d. In the meditations, Descartes claims that the mind and body are two different substances.

3. Which of the following statements proposes a comparison between two philosophical views?
a. Descartes says that the mind is a substance that is distinct from the body, but I disagree.
b. Contemporary psychology has shown that Descartes is incorrect to think that human beings have free will and that the mind is something different from the brain.
c. Thomas Hobbes's view of the soul is materialistic, whereas Descartes's view of the soul is nonphysical. In this paper, I will examine the differences between these two views.

4. Which of the following statements identifies a weakness in a philosopher's argument and proposes a criticism of that argument?
a. John Stuart Mill reasons that utilitarian judgments can be based on qualitative differences as well as the quantity of pleasure, but ultimately any qualitative difference must result in a difference in the quantity of pleasure.
b. Mill's approach to utilitarianism differs from Bentham's by introducing qualitative distinctions among pleasures, where Bentham only considers the quantitative aspects of pleasure.
c. J. S. Mill's approach to utilitarianism aligns moral theory with the history of ethics because he allows qualitative differences in moral judgments.

5. Which of the following is an example of a statement that applies a philosophical idea to a contemporary issue or problem?
a. Rawls's liberty principle ensures that all people have a basic set of freedoms that are important for living a full life.
b. The US Bill of Rights is an example of Rawls's liberty principle because it lists a set of basic freedoms that are guaranteed for all people.
c. While many people may agree that Rawls's liberty principle applies to all citizens of a particular country, it is much more controversial to extend those same basic freedoms to immigrants, including those classified by the government as permanent residents, legal immigrants, illegal immigrants, and refugees.

[ANS: 1.d 2.c 3.c 4.a 5.c]

WRITE LIKE A PHILOSOPHER

Use the following templates to write your own thesis statement by inserting a philosopher, claim, or contemporary issue:

1. [Name of philosopher] holds that [claim], but [name of another philosopher] holds that [another claim]. In this paper, I will identify reasons for thinking [name of philosopher]'s position is more likely to be true.
2. [Name of philosopher] argues that [claim]. In this paper, I will show how this claim provides a helpful addition to [contemporary issue].
3. When [name of philosopher] argues in favor of [claim], they rely on [another claim] that is undercut by contemporary science. I will show that if we modify this claim in light of contemporary science, we will strengthen or weaken [name of philosopher]'s argument.

Collect Evidence and Build Your Case

Once you have identified your thesis statement or primary claim, collect evidence (by returning to your readings) to compose the best possible argument. As you assemble the evidence, you can think like a detective or prosecutor building a case. However, you want a case that is true, not just one that supports your position. So you should stay open to modifying your claim if it does not fit the evidence. If you need to do additional research, follow the guidelines presented earlier to locate authoritative information.

If you cannot find evidence to support your claim but still feel strongly about it, you can try to do your own philosophical thinking using any of the methods discussed in this chapter or in Chapter 1. Imagine counterexamples and thought experiments that support your claim. Use your intuitions and common sense, but remember that these can sometimes lead you astray. In general, common sense, intuitions, thought experiments, and counterexamples should support one another and support the sources you have identified from other philosophers. Think of your case as a structure: you do not want too much of the weight to rest on a single intuition or thought experiment.

Consider Counterarguments

Philosophy papers differ from typical argumentative papers in that philosophy students must spend more time and effort anticipating and responding to counterarguments when constructing their own arguments. This has two important effects: first, by developing counterarguments, you demonstrate that you have sufficiently thought through your position to identify possible weaknesses; second, you make your case stronger by taking away a potential line of attack that an opponent might use. By including counterarguments in your paper, you engage in the kind of dialectical process that philosophers use to arrive at the truth.

Accurately Represent Source Material

It is important to represent primary and secondary source material as accurately as possible. This means that you should consider the context and read the arguments using the principle of charity. Make sure that you are not strawmanning an argument you disagree with or misrepresenting a quote or paraphrase just because you need some evidence to support your argument. As always, your goal should be to find the most rationally compelling argument, which is the one most likely to be true.

FIGURE 2.11 Good organization is key to strong writing. (credit: "Female hand writing at home." by Nenad Stojkovic/Flickr, CC BY 2.0)

Organize Your Paper

Academic philosophy papers use the same simple structure as any other paper and one you likely learned in high school or your first-year composition class.

Introduce Your Thesis

The purpose of your introduction is to provide context for your thesis. Simply tell the reader what to expect in the paper. Describe your topic, why it is important, and how it arises within the works you have been reading. You may have to provide some historical context, but avoid both broad generalizations and long-winded historical retellings. Your context or background information should not be overly long and simply needs to provide the reader with the context and motivation for your thesis. Your thesis should appear at the end of the introduction, and the reader should clearly see how the thesis follows from the introductory material you have provided. If you are writing a long paper, you may need several sentences to express your thesis, in which you delineate in broad terms the parts of your argument.

Make a Logical and Compelling Case Using the Evidence

The paragraphs that follow the introduction lay out your argument. One strategy you can use to successfully build paragraphs is to think in terms of good argument structure. You should provide adequate evidence to support the claims you want to make. Your paragraphs will consist of quotations and paraphrases from primary and secondary sources, context and interpretation, novel thoughts and ideas, examples and analogies, counterarguments, and replies to the counterarguments. The evidence should both support the thesis and build toward the conclusion. It may help to think architecturally: lay down the foundation, insert the beams of your strongest support, and then put up the walls to complete the structure. Or you might think in terms of a narrative: tell a story in which the evidence leads to an inevitable conclusion.

CONNECTIONS

See the chapter on logic and reasoning for a developed account of different types of philosophical arguments.

Summarize Your Argument in the Conclusion

Conclude your paper with a short summary that recapitulates the argument. Remind the reader of your thesis and revisit the evidence that supports your argument. You may feel that the argument as written should stand on its own. But it is helpful to the reader to reinforce the argument in your conclusion with a short summary.

Do not introduce any new information in the conclusion; simply summarize what you have already said.

The purpose of this chapter has been to provide you with basic tools to become a successful philosophy student. We started by developing a sophisticated picture of how the brain works, using contemporary neuroscience. The brain represents and projects a picture of the world, full of emotional significance, but this image may contain distortions that amount to a kind of illusion. Cognitive illusions produce errors in reasoning, called cognitive biases. To guard against error, we need to engage in effortful, reflective thinking, where we become aware of our biases and use logical strategies to overcome them. You will do well in your philosophy class if you apply the good habits of mind discussed in this chapter and apply the practical advice that has been provided about how to read and write about philosophy.

Summary

2.1 The Brain Is an Inference Machine

Our brains facilitate our survival and promote our ability to find a partner and reproduce by using thought, calculation, prediction, and inference. For this reason, our natural and genetically primed ways of thinking do not necessarily serve the goals of philosophy, science, or truth.

The relationship between mind and brain is one of the central problems of metaphysics, known as the "mind-body problem." The mind-body problem is the problem of understanding the relationship between the organic gray and white matter in our skulls (the brain) and the range of conscious awareness (the mind). Biology does not tell us what the relationship is between our private mental life and the neurological, electrochemical interactions that take place in the brain.

It can be helpful to use the resources of psychology and cognitive science (the study of the brain's processes) to help us understand how to become better thinkers. Your brain is not passively capturing the world, like a camera, but is actively projecting the world so that it makes sense to you. When the brain defaults to ways of thinking that produce a less than optimal result or even an incorrect decision, it is operating with a cognitive bias. A cognitive bias is a pattern of "quick" thinking based on the 'rule of thumb.' Cognitive biases are like perceptual illusions.

2.2 Overcoming Cognitive Biases and Engaging in Critical Reflection

Metacognition means thinking about thinking and involves the kind of self-awareness that engages higher order thinking skills. Cognition, or the way we typically engage with the world around us, is first-order thinking, while metacognition is higher-order thinking.

One of the most common cognitive biases is confirmation bias, which is the tendency to search for, interpret, favor, and recall information that confirms or supports your prior beliefs. Anchoring bias refers to our tendency to rely on initial values, prices, or quantities when estimating the actual value, price, or quantity of something. If you are presented with a quantity, even if that number is clearly arbitrary, you will have a hard time discounting it in your subsequent calculations; the initial value "anchors" subsequent estimates. The availability heuristic refers to the tendency to evaluate new information based on the most recent or most easily recalled examples. The availability heuristic occurs when people take easily remembered instances as being more representative than they objectively are (i.e., based on statistical probabilities).

Another more loosely defined category of cognitive bias is the tendency for human beings to align themselves with groups with whom they share values and practices. Tribal thinking makes it hard for us to objectively evaluate information that either aligns with or contradicts the beliefs held by our group or tribe. A related bias is called the bandwagon fallacy. The bandwagon fallacy can lead you to conclude that you ought to do something or believe something because many other people do or believe the same thing.

The sunk cost fallacy is thinking that attaches a value to things in which you have already invested resources that is greater than the value those things have today. A similar type of faulty reasoning leads to the gambler's fallacy, in which a person reasons that future chance events will be more likely if they have not happened recently.

2.3 Developing Good Habits of Mind

One of the ways to respond to cognitive biases is to develop good habits of mind. There are no quick fixes or easy solutions to cognitive biases, but some strategies can be helpful.

To be more objective in thinking about issues, problems, or values, we should actively engage in strategies that remove us from our naturally subjective mindset. When considering philosophical views, try to actively promote the alternative point of view. Another good strategy is to identify counterexamples – instances that render an argument invalid by satisfying all the premises of the claim but demonstrating the conclusion is

false. To respond to strong emotions, use the tools of metacognition to reflect on the source of those emotions and attempt to manage them.

A final concept that is a critical component for becoming a better critical thinker is adopting a stance of epistemic humility. We should recognize these limitations of human knowledge and rein in our epistemic confidence. We should recognize that the knowledge we do possess is fragile, historical, and conditioned by a number of social and biological processes.

2.4 Gathering Information, Evaluating Sources, and Understanding Evidence

Effective internet research requires knowing how to find information and evaluate the quality of sources. The SIFT method for evaluating sources teaches students how to become seasoned fact-checkers when searching online. The four moves for student fact checkers are: stop, investigate the source, find better coverage, trace the claims to the original context.

2.5 Reading Philosophy

Read at a table with a comfortable chair, instead of on a couch or in a bed. Sitting up straight improves concentration. Have something to drink nearby, and avoid distractions, like the TV or music with lyrics. Next, choose an annotation tool. You will need to write notes, underline, and flag portions of the reading, so use text you can alter whenever possible.

Philosophy consists of ideas and arguments. Your goal is to engage with those ideas and arguments to arrive at your own understanding of the issues. It is not as important to read sequentially for plot or narrative; it is much more important to follow the sequence of ideas and arguments. The author may use a variety of methods to make an argument. If you can identify these methods, strategies, and sources of evidence, you will be able to better evaluate the text.

An effective method for reading philosophy involves three key steps: pre-read, first read, and close read. When encountering a new philosophical text, students who use this systematic method will better understand challenging content.

2.6 Writing Philosophy Papers

Most philosophy papers require students to produce an argument in support of a claim about the readings in philosophy class. The first and most important step to writing a good argumentative paper is to find a clear, defensible thesis. The next step is to construct an argument using evidence from assigned readings and external research, original arguments, and applied cases. However, the goal of writing in philosophy is to approach truth, not just to win an argument.

Key Terms

Allostasis the biological process whereby the body prepares itself for anticipated needs.
Anchoring bias the tendency to make estimates based on an earlier initial value.
Availability heuristic the tendency to evaluate new information based on the most recent or most easily recalled examples.
Bandwagon fallacy the fallacy that we ought to do something or believe something because many other people do or believe the same thing.
Cognitive bias a systematic pattern of reasoning that deviates from a rationally optimal or logical judgment based on available facts and probabilities.
Cognitive science the study of the brain and the mechanisms underlying thought, perception, memory, emotion, and other functions of the brain.
Confirmation bias the tendency to search for, interpret, favor, and recall information that confirms or supports established beliefs.
Dialectic a method of discovering truth that comes from dialogue and uses the exchange of different points of

view to arrive at a position that is more likely to be true.

Dunning-Kruger effect the cognitive bias in which people with little expertise in a specific task rate their knowledge too highly relative to others with more knowledge.

Epistemic humility a stance in philosophical and scientific investigation that recognizes the limits of one's own ability to know truth and reality in a direct or complete way.

Gambler's fallacy the reasoning that holds that if a chance event has happened less frequently in the recent past, it is more likely to happen in the near future (or vice versa).

Heuristics mental shortcuts or rules of thumb that provide a method of problem-solving that is not necessarily optimal but is efficient.

Homeostasis the biological process whereby the body regulates itself to maintain a state of equilibrium.

Inference the mental process that leads from one set of information (premises, data, or information) to another (a conclusion, construction, or projection).

Metacognition the process of thinking about thinking. Metacognition engages self-awareness and higher-order thinking skills so that an individual can regulate, monitor, and critically analyze their own thought processes.

Principle of charity the interpretative principle that says a reader ought to interpret the author's statements in the most rational and best possible way.

Representation an information-bearing unit of thought. Representations are the objects that minds consider when they think.

Steelmanning a strategy for making opposing arguments as strong as possible so that it is difficult to knock them down.

Sunk-cost fallacy the fallacy of attaching a greater value to something than is warranted because a person has already invested time, resources, and emotion in that thing (or person).

Tribalism the tendency for human beings to align their beliefs and attitudes with groups of people who have similar attitudes, practices, or beliefs.

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Review Questions

2.1 The Brain Is an Inference Machine

1. Distinguish homeostasis from allostasis, and describe the relationship of both to the emotions and rational thought.
2. What are heuristics?
3. What is the role of emotion in rational thought?
4. Describe some of the reasons for effortless thinking and gut intuitions. Explain why these are sometimes faulty.

2.2 Overcoming Cognitive Biases and Engaging in Critical Reflection

5. What are some of the conditions that make critical thinking possible?
6. Define three of the common cognitive biases identified in this chapter.
7. Describe critical thinking strategies that can be applied to two of the cognitive biases identified in the chapter.

2.3 Developing Good Habits of Mind

8. What is epistemic humility, and how does it relate to the Dunning-Kruger effect?
9. How can you apply the strategies for thinking objectively to your philosophy class?
10. How can you manage your emotions when reading and thinking about philosophy?

2.4 Gathering Information, Evaluating Sources, and Understanding Evidence

11. What are the four moves of fact-checking, and how do they work?

2.5 Reading Philosophy

12. What is the three-part method for philosophical reading?
13. What are some differences between reading philosophical texts and other kinds of texts?

2.6 Writing Philosophy Papers

14. What is a thesis statement, and how should you go about developing a thesis statement for your papers?

Further Reading

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The Early History of Philosophy around the World

3

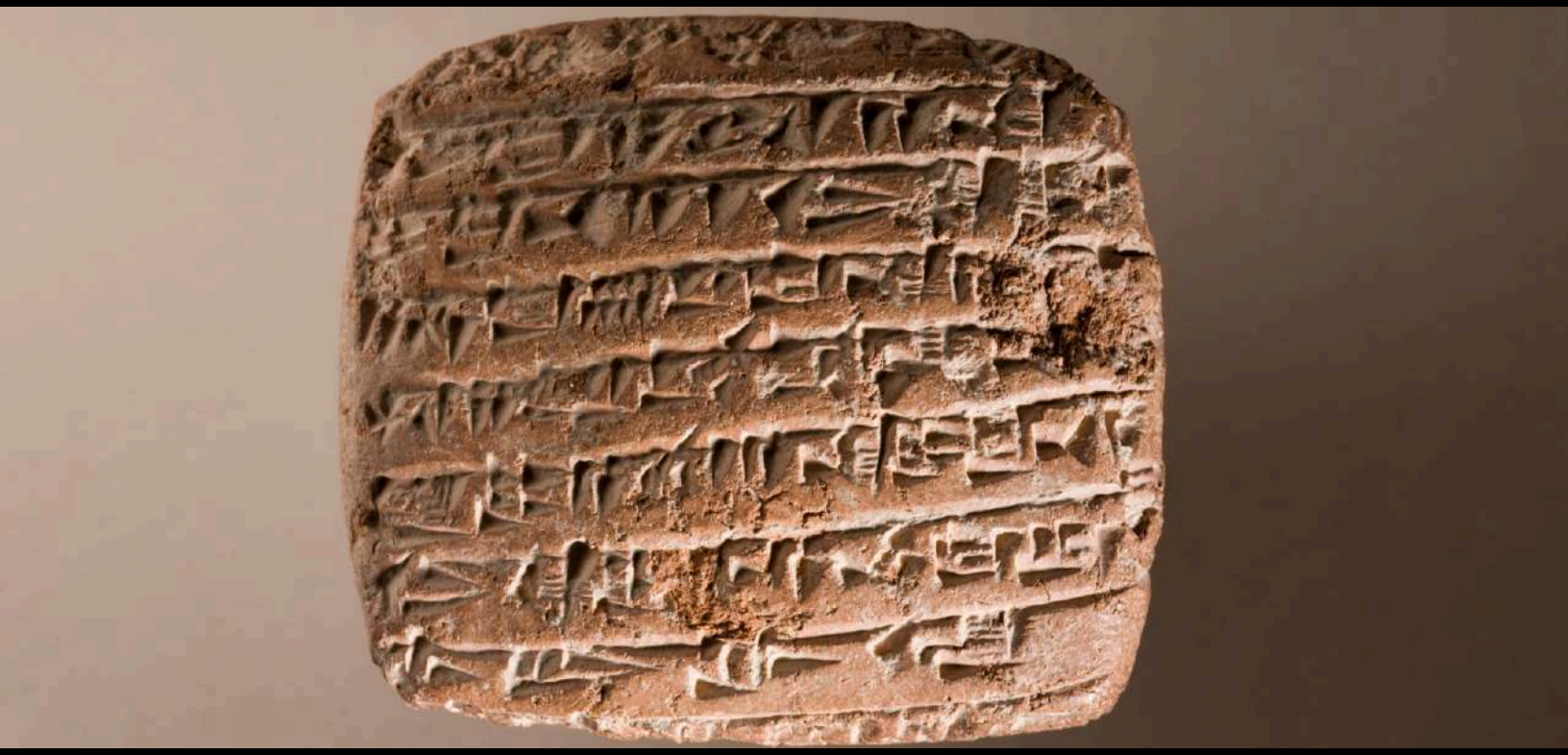

FIGURE 3.1 This cuneiform tablet from Anatolia has been dated to circa 1875–1840 BCE. The development of writing should not be equated with the development of a culture's sense of meaning and history, but writing does make that meaning and history available to those living much later. (credit: "Tablet with Cuneiform Inscription LACMA M.79.106.2 (4 of 4)" by Ashley Van Haeften/Flickr, CC BY 2.0)

CHAPTER OUTLINE

INTRODUCTION As discussed in previous chapters, the figure of the sage, the individual found in early societies around the world who mediated between the everyday and the transcendent realm, is an important precursor to philosophy. In most societies, this figure predates the recognition of the philosopher as the individual seeker of wisdom by many hundreds, if not thousands, of years. Justin E. H. Smith (2016) argues that philosophical thought requires abstract thinking of the sort required for the bureaucratic administration of society and that many societies developed philosophical traditions out of these practices of abstract reasoning. These traditions furnished shared beliefs about ethics, metaphysics, and other realms of philosophical inquiry.

Homo sapiens have inhabited the earth for at least 250,000 years, originating in the Blue Nile rift region of northern Africa. However, the oldest forms of human writing were discovered in ancient Sumer, in

Mesopotamia, between the Tigris and Euphrates Rivers where they enter the Persian Gulf, dating to around 3500 BCE (approximately 5,500 years ago). The vast period of time between the emergence of biological humans and the emergence of human writing is typically called *prehistory*. This term does not imply that early human beings lacked a sense of their past and the lessons they may draw from it. We know from studying modern aliterate societies that many of them possess oral traditions of storytelling that provide historical perspective. However, whatever perspective prehistoric humans gained from oral history is completely lost to us.

The use of writing to record human thought marks the transition from prehistory to history. The first recorded texts include genealogies, accounts of heroic and everyday actions by human beings, and legal codes. These earliest writings offer a glimpse into early human systems of government and everyday life. Writing expressing philosophical questions came later, primarily in the form of religious and mythological stories, and this is where we begin. There is concrete evidence that at this turning point in human history, people were aware of and concerned with history; engaged in questions of the origins of nature and the self; speculating about the goals and purposes of human life, whether moral or spiritual; and reasoning about right, wrong, justice, and injustice. This turning point is what German intellectual Karl Jaspers (1883–1969) has called the "Axial Period" (1953), more commonly translated as the "Axial Age." Jaspers observed that this "axis" of the emergence of philosophical thought occurred during a somewhat well-defined period, between 800 BCE and 200 BCE, in multiple locations around the world, principally the Mediterranean region, Mesopotamia, India, and China. Remarkably, human beings in these disparate locations appear to have made roughly simultaneous transitions, first from prehistory to history, and then from a mythological and religious understanding of human beings and their place in the world to a more systematic study of human beings and the world around them. This chapter will cover the period of time from the so-called axial age to the development of rich philosophical traditions in Africa, Asia, and the Americas.

3.1 Indigenous Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify challenges in the study of Indigenous philosophies.
- Describe metaphysical and epistemological ideas explored by Indigenous African philosophies.
- Describe metaphysical and epistemological ideas explored by Indigenous Native American philosophies.
- Describe metaphysical and epistemological ideas explored by Mesoamerican philosophies.

Some of the best-known ancient texts, connected to many of the great civilizations around the world, are religious or mythological in nature. Examples include the Vedas of India, the earliest literature of China, and the Jewish Talmud. These texts introduce aspects of philosophical inquiry—such as questions concerning the origins of the cosmos and the nature and purpose of human life, morality, justice, human excellence, knowledge, and so forth—in terms of stories and explanations that rely on the supernatural. These stories provide context, meaning, and direction for human life within a framework that assumes that the natural world is infused with supernatural importance. Such texts are a testament to the fundamental and binding nature of religion in human societies.

When humans shift from religious answers to questions about purpose and meaning to more naturalistic and logical answers, they move from the realm of myth to the realm of reason. In Greek, this movement is described as a move from **mythos** to **logos**, where *mythos* signifies the supernatural stories people tell, while *logos* signifies the rational, logical, and scientific stories they tell. This distinction may lead one to believe that there is a clear transition from religious thought to philosophical or scientific thought, but this is not the case. The earliest philosophers in Greece, Rome, India, China, and North Africa all used mythological and analogical (analogy-based) stories to explain their rational systems, while religious texts from the same period often engage in serious, logical argumentation. Rather than seeing a decisive break between mythological thinking and rational thinking, one should understand the transition from mythos to logos as a gradual, uneven, and

zig-zagging progression. This progression teaches that there are close connections between religion, philosophy, and science in terms of the desire to understand, explain, and find purpose for human existence.

Challenges in Researching Indigenous Philosophy

There is growing interest in **Indigenous philosophy** in contemporary academic philosophy, as a way of engaging with both the historical and present-day thought of Indigenous peoples around the world. Indigenous philosophy broadly refers to the ideas of Indigenous peoples pertaining to the nature of the world, human existence, ethics, ideal social and political structures, and other topics also considered by traditional academic philosophy. Unlike the philosophies of ancient Greece, India, and China, Indigenous philosophies did not spread across vast territorial empires or feature centers of formal learning that documented and developed philosophical ideas over hundreds or thousands of years. The study of Indigenous philosophies, or **ethnophilosophy**, often must rely on different methods than typical academic philosophy. Indigenous philosophy is not usually recorded in texts that can be read and analyzed. Instead, those seeking to understand Indigenous philosophical thinking must engage in the kind of research often used in ethnographic and sociological study, including identifying individuals who hold and transmit cultural knowledge about philosophical thought and recording interviews and conversations with them. Most of the philosophy of Indigenous peoples has been passed down through oral traditions, in much the same way that prehistoric thought was transmitted.

There are additional challenges to studying Indigenous philosophy. The discipline of academic philosophy has traditionally dismissed or ignored the philosophical thought of Indigenous peoples, considering it to lie outside the realm of logos. The long history of erasure of Indigenous philosophical thought in academic philosophy makes it difficult to engage in academic discussion with it. There is an absence of past scholarship in this field in the West. Indigenous peoples have also been subjected to racist practices, such as forced education in languages other than their own, that make it difficult for them to retain a lively philosophical tradition. Furthermore, many Indigenous customs have been lost because of the loss of life and cultural heritage among Indigenous peoples following colonization by Europeans and Americans.

Indigenous African Philosophy

If the transition from mythos to logos is predicated on the development of written language, then this transition may have first occurred in Africa. Africa was home to the development of many ancient writing systems, including the system of ancient Egyptian hieroglyphics that developed during the fourth millennium BCE. The modern Western understanding of the deep history of philosophy is severely hampered by the lack of scholarship in English and other European languages, the loss of collective cultural knowledge exacerbated by colonialism, and the sometimes deliberate destruction of historical records, such as the burning of the Library of Alexandria. As a result, research has relied heavily on oral traditions or the rediscovery and translation of written evidence. The philosophical legacy of ancient Egypt is discussed in the chapter on classical philosophy. This chapter will examine research into ethnophilosophy from other regions of Africa.

The seizure of the city of Ceuta, bordering present-day Morocco, by the Portuguese in 1415 marks the first attempts by Europeans to colonize Africa. By the late 19th and early 20th centuries, European nations were engaging in what is called the “scramble for Africa.” Prior to this period, European settlement in Africa had been limited by the mosquito-borne disease malaria, the inappropriateness of African terrain to equine (horse-based) conquest, and the power of strong coastal states. European nations now gained access to the interior of Africa with the help of the discovery of quinine to treat malaria and the development of mechanized vehicles and advanced weaponry. During the colonial era, young Africans identified as having intellectual promise were sent to study at European universities, where they read Plato, Aristotle, Kant, Hegel, and other Western philosophers. Whether the intent was to help these communities enter the modern age or to create local administrations that would further the interests of Western parties—or both—the result was the failure to preserve knowledge about the history and thought of localities and regions.

In later decades, some Western-educated Africans began to engage directly with African philosophies. In 1910, Congolese philosopher Stefano Kaoze (c. 1885–1951) described the thought of the Bantu people pertaining to moral values, knowledge, and God in an essay entitled "The Psychology of the Bantus" (Dübgen and Skupien, 2019). *Bantu* is a blanket term for hundreds of different ethnic groups in Central and Southern African that speak what are referred to as Bantu languages and share many cultural features (see Figure 3.2). In later writings, Kaoze explored other African thought systems, arguing that these systems had much to teach Western thought systems grounded in Christianity (Nkulu Kabamba and Mpala Mbabula 2017).

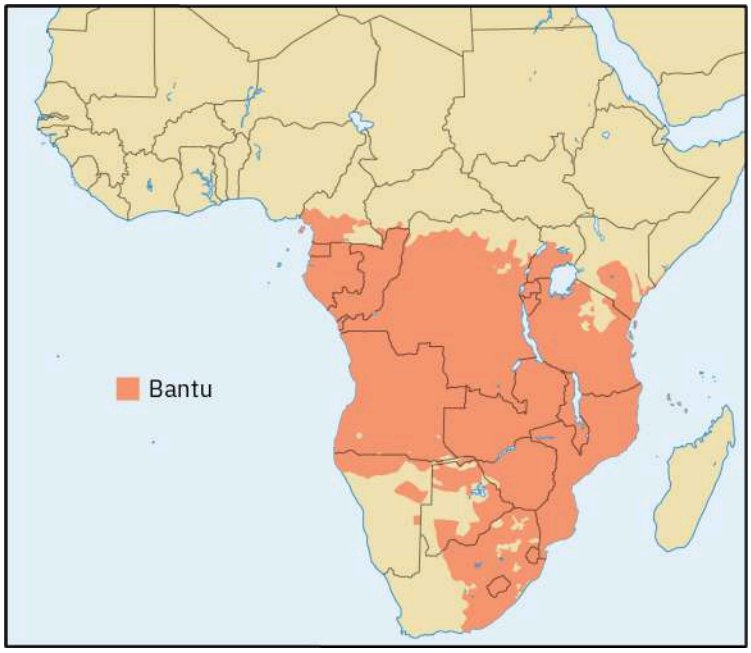

FIGURE 3.2 Approximate territory of Bantu peoples. Bantu is a blanket term for hundreds of different ethnic groups that speak what are referred to as Bantu languages and share many cultural features. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

It was not until 1945, when Belgian missionary Placide Tempels (1906–1977) published *Bantu Philosophy*, that the topic of African philosophy gained significant attention in the West. Tempels rejected the characterization of African philosophy and theology as consisting of magic, animism, and ancestor worship, instead exploring the richness of Bantu thought pertaining to individuals, society, and the divine. Tempels described Bantu peoples as believing in a "vital force," the source of which is God. He observed that what Western thinkers envisioned as a divine being, the Bantu understood as various forces, including human forces, animal forces, and mineral forces. They viewed the universe as comprising all of these forces, and these forces could directly impact the "life force" of an individual (Okafor 1982, 84).

Later African scholars and theologians, such John Mbiti (1931–2019) and Alexis Kagame (1912–1981), indicated that Tempels was somewhat inventive in his descriptions and interpretations. They engaged in a more authentic study of Bantu philosophy, recording and analyzing African proverbs, stories, art, and music to illuminate what they presented as a shared worldview. One example of this shared worldview is the Zulu term *ubuntu*, which can be translated as "humanity." Variations on the term appear in many other Bantu languages, all referring to a similar concept, expressed through maxims such as "I am because we are." The concept of *ubuntu* holds that human beings have a deep natural interdependence, to the point that we are mutually dependent on one another even for our existence. The notion of *ubuntu* has inspired a uniquely African approach to communitarian philosophy, which refers to ideas about politics and society that privilege the community over the individual.

Nigerian philosopher Sophie Olúwọlé (1935–2018) was a practitioner and scholar of Yoruba philosophy. The Yoruba are a prominent ethnic group in Nigeria and other locations in sub-Saharan Africa. Among other

accomplishments, Olúwọlé translated the Odu Ifá, the oral history concerning the pantheon and divination system of Ifá, the religion of the Yoruba peoples. Olúwọlé proposed that Ọ̀rúnmìlà, the high priest featured in the Odu Ifá, was a historical figure and the first Yoruba philosopher. She argued that Ọ̀rúnmìlà had an equal claim to that of Socrates as the founder of philosophy. In *Socrates and Ọ̀rúnmìlà: Two Patron Saints of Classical Philosophy* (2015), Olúwọlé compares the two philosophers and finds many similarities. Both are considered founders of philosophical traditions. Neither wrote anything down during their lifetimes. They both placed a primacy on the concepts of virtue and learning to live in keeping with virtue. Surprisingly, they shared cosmological views, such as a belief in reincarnation and predestination. Olúwọlé compiled quotes from each philosopher on specific topics, some of which are listed in Table 3.1. Olúwọlé argues that Yoruba ideas as conveyed through the Odu Ifá should be given full standing as a philosophy.

Topic	Socrates's Quote	Ọ̀rúnmìlà's Quote
The nature of truth	"But the highest truth is that which is eternal and unchangeable."	"Truth is what the Great Invisible God uses in organizing the world. . . . Truth is the Word that can never be corrupted."
The limits of human knowledge	"And I am called wise for my hearers always imagine that I myself possess the wisdom which I find wanting in others. But the truth is, O men of Athens, that God only is wise. . . . And so I go about the world, obedient to the God."	"When they turned to me and said: 'Bàbá, we now accept that you are the only one who knows the end of everything,' I retorted, 'I myself do not know these things.' For instruction on this matter, you have to go to God through divination, for He alone is the possessor of that sort of wisdom."
Good and bad	"And are not all things either good or evil, or intermediate and indifferent?"	"Tribulation does not come without its good aspects. The positive and the negative constitute an inseparable pair."
Human nature	"No man voluntarily pursues evil, or that which he thinks to be evil. To prefer evil to good is not in human nature."	"No one who knows that the result of honesty is always positive would choose wickedness when s/he is aware that it has a negative reward."

TABLE 3.1 Olúwọlé's Comparison of Socrates's and Ọ̀rúnmìlà's Ideas. (source: Olúwọlé 2015)

Olúwọlé does identify one important distinction between the ideas of Socrates and Ọ̀rúnmìlà. Socrates held a binary metaphysical theory of matter and ideas, contrasting the unchanging eternal with the forms in which the eternal manifests itself in the physical world. By contrast, Ọ̀rúnmìlà taught that matter and ideas are inseparable. Similarly, while Socrates distinguished the concepts of good and bad, Ọ̀rúnmìlà held that they are "an inseparable pair" (Olúwọlé 2015, 64). The strict binary of the Greeks and of the West, Olúwọlé concludes, leads to an either-or perspective on truth and debate. The Yoruba, she contends, maintain a complementary dualist view of reality.

VIDEO

Watch Professor Olúwọlé discuss what Socrates and Ọ̀rúnmìlà have in common.
Click to view content (https://openstax.org/books/introduction-philosophy/pages/3-1-indigenous-philosophy)

WRITE LIKE A PHILOSOPHER

Review the contents of Table 3.1. Translate each of the quotes into everyday language and compare your translations of the sayings of Ọ̀rúnmìlà and Socrates. Where do they agree, and how do they differ?

In the 1970s, Kenyan philosopher Henry Odera Oruka (1944–1995) launched a field study to record the philosophical thoughts of sages in modern-day Kenya. Researchers interviewed individual thinkers from various ethnic groups and questioned them about their views on central concepts in Western philosophy and issues related to applied ethics. Among other aims, this project was intended to demonstrate that philosophy is not an undertaking that is unique to the literate world. Odera Oruka's findings were published in 1990, but no systematic attempt has been made to analyze them (Presbey 2017).

As these philosophers and their work demonstrate, African philosophy has emerged as a body of thought that stands on its own. The philosophy of African peoples, both those living on the African continent and those elsewhere in the world, is rooted in and developed out of concepts that both complement and challenge the Western tradition.

CONNECTIONS

The chapter on classical philosophy discusses Egyptian and Ethiopian philosophers who contributed to the development of classical philosophy in the ancient and early modern worlds.

Indigenous North American Philosophical Thought

Work on Native American philosophy has expanded in recent years, as philosophers, many of them Native American themselves, have engaged in collective research on Native American thought. This work has included the development of academic societies and journals devoted to the topic. Like many Indigenous African peoples, Native American peoples did not rely on written documents to preserve their history and culture but instead preserved knowledge through oral tradition. These oral traditions included rituals, ceremonies, songs, stories, and dance. What is known about Native American philosophy comes from this oral tradition as well as the experiences and thoughts of contemporary Native American people.

Any attempt to define Indigenous North American philosophical thought is further complicated by the fact that thousands of distinct societies have existed on the continent, each with their own ideas about how the world was created, what are the basic elements of reality, what constitutes the self, and other metaphysical issues. There is a rich expanse of philosophical views to synthesize—and for every possible generalization, there are exceptions. Still, some generalizations of Indigenous North American philosophy are true more often than not. One such generalization is the perception that the creative process of the universe is akin to the thought process. Another is that more than one being is responsible for the creation of the universe—and that these beings do not take on anthropomorphic forms (Forbes 2001).

Additionally, there are a number of characteristics common to Indigenous North American metaphysical concepts. Many Native American peoples, for example, emphasize balance, complementarity, and exchange between the different entities that make up the world. For instance, the Diné see breath as a fundamental force in nature, with the exchange of the internal and the external passing through all natural processes. Similarly, the Zuni note that twins, such as the twin Evening Star and the Morning Star—both of which are actually Venus – share a complementary and mirrored existence, serving as a reminder that there can be multiple manifestations of the same thing in nature. Additionally, concepts such as gender identity are understood as animated, nonbinary, and non-discrete, such that gender may develop and change over time (Waters 2004, 107). These generalizations point to a Native American metaphysics that is based on animate processes that are complementary, interactive, and integrated.

North American Indigenous peoples also have views of the self that differ from the European tradition. The Pueblo possess a sense of personal and community identity shaped by both place and time. Known as a **transformative model of identity**, this social identity is understood to spiral both outward and inward through expanding and retracting influences over a certain area of land (Jojola 2004). Extant petroglyphic spirals show the migration of a clan outward to the boundaries of its physical and spiritual territory as well as the inward journey homeward. These journeys also reflect a temporal component, as they were coordinated

with the cycles of the solstice calendar. Such metaphysical understandings are reflected in the tendency of many Native American cultures to build moral and ethical concepts on the idea that human beings are fundamentally social rather than individual—a "we," not an "I."

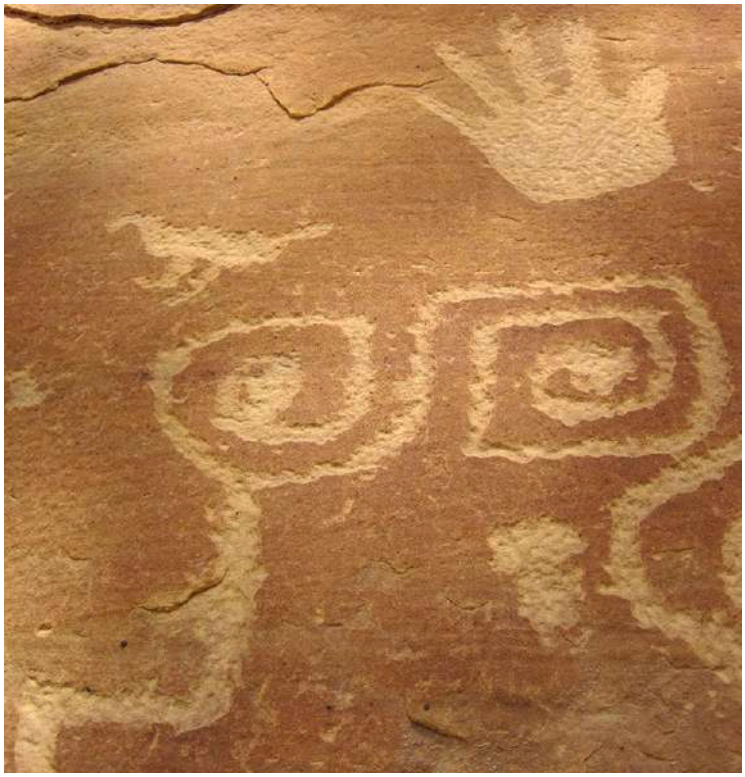

FIGURE 3.3 These petroglyphic spirals created by the Ancestral Pueblo represent both physical and spiritual journeys. The boxy spiral shown here likely represents the path that many Southwestern tribes believe they took when they emerged from the earth. Many contemporary scholars identify this with the geographic feature of the Grand Canyon. (credit: "Anasazi Indian Petroglyphs (~600 to 1300 A.D.) (Mesa Verde National Park, Colorado, USA) 1" by James St. John/Flickr, CC BY 2.0)

Mesoamerican Philosophy

Mesoamerican peoples include an array of tribes and cultures, speaking multiple languages, that developed several sophisticated civilizations between 2000 BCE and the arrival of European colonialists in the 1500s CE. This area of the world developed both pictographic/hieroglyphic and alphabetic/phonetic forms of writing that allowed them to record thoughts and ideas, providing modern scholars access to some of the philosophical reflection that occurred within these societies. This section will examine some examples of the thought of Mesoamerican peoples by looking at the preserved writings of the Maya and the Aztec. Though the philosophical thought of each civilization is examined as if it were uniform, note that each encompassed many diverse tribes and cultures with a variety of languages, cultural practices, and religious beliefs.

FIGURE 3.4 The Maya and Aztec were powerful civilizations for centuries. The existence of written records from each of these peoples has given contemporary scholars access to their philosophy, spirituality, and scientific advances. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

Mayan Writings

The Maya first settled in villages in the area that runs from southern Mexico through Guatemala and northern Belize around 1500 BCE. Between 750 and 500 BCE, large city-states arose and established a trading network. At the height of their civilization, between approximately 250 CE and 900 CE, the Maya possessed a written language that appears to have been a combination of an alphabetic/phonetic language and a pictographic/hieroglyphic language, used not only by the priesthood but also by the urban elite. This writing appears on stone slabs, pottery, and sculptures as well as in books called **codices** (plural of *codex*), written on a paper made from tree bark.

The Maya possessed advanced knowledge of mathematics and natural philosophy. However, following the Spanish conquest of this territory, Catholic priests burned almost all of the Maya codices as well as their scientific and technical manuals (*Yucatan Times* 2019). In the years that followed the conquest, the Maya lost their written language. However, some writings in clay did survive, providing scholars a glimpse into Maya thought. They implemented a numerical system using symbols that allowed for representation of very large numbers, and they may have been the first to use the number 0 in mathematics. This numerical system enabled the Maya to gain insights into arithmetic and geometry that surpassed those of the Egyptians. Their knowledge of astronomy was so advanced that they could correctly predict the timing of solar eclipses. Unlike other early civilizations, the Maya had a highly sophisticated calendar and a unique conception of time.

FIGURE 3.5 This piece of Mayan writing, known as the Dresden Codex because it was found in the city of Dresden, Germany, in the 1700s, is one of the oldest known examples of writing from the Americas. It has been dated to the 11th or 12th century. (credit: "Dresden Codex" by Chris Protopapas/Flickr, Public Domain)

Maya Calendar

The Maya developed a calendar that tracked many cycles simultaneously, including the solar year and the "calendar round," a period of 52 years. The calendar played a central role in Maya rituals and sacred celebrations. Astronomical events, in particular the position of Venus relative to the sun and moon, have been noted to align with the dates of historical battles, causing some to hypothesize that the Maya may have scheduled battles to coincide with these cycles. The Maya placed great importance on customs and rituals surrounding the solar calendar. Using these calendars, the Maya were able to record complex histories of their civilization.

Maya Concept of Time and Divinity

The Maya had a complex understanding of time. They recognized an experiential or existential aspect of time—for instance, observing that disinterest or concentration can elongate or shorten time. The experience of "awe" was considered particularly important because of its ability to bring a person into the present moment, increasing their awareness of the immediate effect of fundamental forces such as the energy of the sun and making them more capable of clear thinking, decision-making, and understanding.

Although the Maya worshipped an array of gods, they believed in a single godlike force, the sun's force or energy, called *K'in*. This force was understood in terms of the position of the sun relative to the planets and the moon during different periods of the calendar. The king served as a conduit through which this divine force, the solar energy, passed to subjects. The Maya also believed that time is the expression of *K'in*. The ability of rulers and priests to predict natural events, such as an eclipse or the coming of spring, and thus seemingly to control time served to secure the allegiance of their subjects and legitimized their rule.

Aztec Metaphysical Thought

For the Aztecs, the fundamental and total character of the universe was captured by the concept of *teotl*, a godlike force or energy that is the basis for all reality. They considered this energy to be a sacred source fueling all life, actions, and desires as well as the motion and power of inanimate objects. In this sense, Aztec metaphysics adopted a view of the world that was pantheistic and monist, meaning that it viewed all reality as composed of a single kind of thing and that thing was divine in nature. However, *teotl* is not an agent or moral force, like the Abrahamic God, but rather a power or energy that is entirely amoral.

Teotl is not a static substance but a process through which nature unfolds. It changes continually and develops through time toward an endpoint or goal, a view that philosophers call *teleological*. For the Aztecs, time was not linear but rather cyclical. Thus, even though *teotl* tends toward an end point and there is an end of humanity and Earth as we know it, from the point of view of the universe, this is part of a cycle, just like leaves

fall from trees before winter. Moreover, because *teotl* is both the matter from which everything in the universe is made and the force by which things are created, change, and move, it is an all-encompassing, dynamic, and immanent force within nature (Maffie 2013).

Teotl has three different shapes, aspects, or manifestations, each with different characteristics, including different motions, powers, and goals. These three aspects of *teotl* have been assigned metaphorical positions related to weaving, aligning an important cultural practice of the Aztecs with their conception of fundamental reality.

Aztec Epistemological Thought

Philosophers use the term **epistemology** to refer to the study of knowledge involving questions such as how we know what we know, what is the nature of true knowledge, and what are the limits to what humans can know. Aztec epistemology understood the concept of knowledge and truth as "well-rootedness." To say that someone knows or understands the truth is to say that they are well-grounded or stably founded in reality. The Aztecs understood truth not in reference to some belief or proposition of reality but as a property of one's character when one is well-grounded. Being well-grounded means understanding the ways reality presents itself and being capable of acting according to what reality dictates. Being well-rooted in reality allows one to grow and develop, following the metaphor of a plant that is able to thrive because of its well-rootedness in the soil. This concept has both an epistemological aspect (relating to knowledge) and an ethical aspect (providing the means by which people may flourish).

In Aztec culture, rooting oneself in the constantly changing and growing power of *teotl* was considered necessary because existence on Earth was considered to be "slippery," meaning that it is part of a process of cyclic change that is constantly evolving. The fundamental question for human beings is, How does one maintain balance on the slippery earth? This question motivates the need to develop the type of character that allows one to remain well-rooted and to find stability and balance, given the shifting and changing nature of Earth.

READ LIKE A PHILOSOPHER

In the short article "What the Aztecs Can Teach Us about Happiness and the Good Life (https://openstax.org/r/whattheaztecs)", Sebastian Purcell outlines an Aztec approach to virtue and the good life grounded in the Aztec folk wisdom that "the earth is slippery, slick." In response to this state of affairs, Aztec thinkers advocated for living a well-rooted life. What does it mean to say that "the earth is slippery"? Do you think this is accurate? What does it mean to live a well-rooted life? What are the levels of well-rootedness? How might well-rootedness facilitate happiness and a good life? Do you think that this accurately describes the way one might achieve happiness? What is missing?

3.2 Classical Indian Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify key Indian metaphysical concepts.
- Distinguish between major schools of Indian thought.
- Compare and contrast Indian philosophical writings with other areas of philosophy.

The philosophical depth and richness of Indian philosophy rivals that of European philosophy, and to do justice to it would require a book-length survey. Still, this introductory discussion is intended to show the richness of various Indian philosophical traditions that are more ancient than the Greek origins of European philosophy. Beginning with the Vedic texts, which date from between the seventh and sixth centuries BCE, Indian philosophical traditions are a few centuries older than the earliest European philosophical traditions.

An important parallel between Greek and Roman philosophy and Indian philosophy lies in their respective conceptions of philosophy. Philosophers from both of these traditions understand philosophy as something more than a theoretical activity. For all of these ancient philosophical traditions, philosophy is a practical endeavor. It is a way of life.

The Vedic Tradition

The earliest philosophical texts in India constitute the Vedic tradition. The four **Vedas** are the oldest of the Hindu scriptures. They are the *Rigveda*, the *Samaveda*, the *Yajurveda*, and the *Atharvaveda*. The four Vedas were composed between 1500 and 900 BCE by the Indo-Aryan tribes that had settled in northern India. The Vedas are also called Shruti, which means "hearing" in Sanskrit. This is because for hundreds of years, the Vedas were recited orally. Hindus believe that the Vedas were divinely inspired; priests were orally transmitting the divine word through the generations.

The *Rigveda* is the most ancient of the four Vedic texts. The text is a collection of the "family books" of 10 clans, each of which were reluctant to part with their secret ancestral knowledge. However, when the Kuru monarchs unified these clans, they organized and codified this knowledge around 1200 BCE. The Brahmanic, or priestly, culture arose under the Kuru dynasty (Witzel 1997) and produced the three remaining Vedas. The *Samaveda* contains many of the *Rigveda* hymns but ascribes to those hymns melodies so that they can be chanted. The *Yajurveda* contains hymns that accompany rites of healing and other types of rituals. These two texts shine light on the history of Indo-Aryans during the Vedic period, the deities they worshipped, and their ideas about the nature of the world, its creation, and humans. The *Atharvaveda* incorporates rituals that reveal the daily customs and beliefs of the people, including their traditions surrounding birth and death. This text also contains philosophical speculation about the purpose of the rituals (Witzel 1997).

The Later Texts and Organization

Later Hindu texts developed during the Vedic and post-Vedic periods were integrated into the four Vedas such that each Veda now consists of four sections: (1) the Samhitas, or mantras and benedictions—the original hymns of the Vedas; (2) the Aranyakas, or directives about rituals and sacrifice; (3) the Brahmanas, or commentaries on these rituals; and (4) the **Upanishads**, which consists of two Indian epics as well as philosophical reflections.

The Upanishad epics include the Bhagavad Gita (Song of the Lord), which is part of a much longer poem called the Mahabharata, and the Ramayana. The Mahabharata is an epic depicting the battles of the noble house of Bharata, while the Ramayana focuses on the ancient king Rama during his 14-year exile. There are 13 principal Upanishads and more than 100 minor ones, composed between 800 and 200 BCE in a mix of prose and verse. *Upanishad* derives from the Sanskrit words *upa* (near), *ni* (down), and *shad* (to sit), which comes from the fact that these texts were taught to students who sat at their teachers' feet. Additionally, the term signifies that these texts reveal esoteric doctrines about the true nature of reality beyond the realm of sense perception. The Upanishads became the philosophical core of Hinduism.

Metaphysical Thought in the Vedic Texts

The Vedic texts state that through reflection on the self, one comes to understand the cosmos. Like the Greeks much later, these texts claim that there is a structural analogy between the self and the universe, with one sharing the form of the other. Through inner reflection on oneself, one can then understand the nature of the world.

FIGURE 3.6 The Vedic texts state that reflection on the self can lead to knowledge of the cosmos, proposing that the two share the same form. (credit: "Nightfall" by Mike Lewinski/Flickr, CC BY 2.0)

The *Rigveda* examines the origin of the universe and asks whether the gods created humanity or humans created the gods—a question that would later be posed by the Greek philosopher Xenophanes. More than half of the verses in the *Rigveda* are devoted to metaphysical speculation concerning cosmological theories and the relationship between the individual and the universe. The idea that emerges within Hinduism is that the universe is cyclical in nature. The cycle of the seasons and the cyclical nature of other natural processes are understood to mirror the cycle of birth, death, and rebirth among humans and other animals. Related to this conception is the philosophical question of how one puts an end to this cycle. The Hindus suggest that the answer lies in purification, with ascetic rituals provided as means to achieve freedom from the cycle of reincarnation.

Another area of similarity between the universe and humanity is that both are understood to have a hierarchical structure. Hindu theology assigns a rigid hierarchy to the cosmos, with the triple deity, Vishnu, Brahma, and Shiva, standing above the other gods. India first developed its hierarchical caste system during the Vedic period. Vedic rituals cemented caste hierarchies, the remnants of which still structure Indian society today.

CONNECTIONS

See the chapter on the emergence of classical philosophy for more on Hindu views of the nature of the self.

Classical Indian Darshanas

The word ***darshana*** derives from a Sanskrit word meaning "to view." In Hindu philosophy, *darshana* refers to the beholding of a god, a holy person, or a sacred object. This experience is reciprocal: the religious believer beholds the deity and is beheld by the deity in turn. Those who behold the sacred are blessed by this encounter. The term *darshana* is also used to refer to six classical schools of thought based on views or manifestations of the divine—six ways of seeing and being seen by the divine. The six principal orthodox Hindu *darshanas* are Samkhya, Yoga, Nyaya, Vaisheshika, Mimamsa, and Vedanta. Non-Hindu or heterodox *darshanas* include Buddhism and Jainism.

Samkhya

Samkhya is a dualistic school of philosophy that holds that everything is composed of ***purusha*** (pure, absolute consciousness) and ***prakriti*** (matter). An evolutionary process gets underway when *purusha* comes into contact with *prakriti*. These admixtures of mind and matter produce more or less pure things such as the

human mind, the five senses, the intellect, and the ego as well as various manifestations of material things. Living beings occur when *purusha* and *prakriti* bond together. Liberation finally occurs when mind is freed from the bondage of matter.

CONNECTIONS

The chapter on metaphysics explores Hindu and Buddhist views of self that emerged from Samkhya metaphysics.

Western readers should take care not to reduce Samkhya's metaphysics and epistemology to the various dualistic systems seen in, for example, the account of the soul in Plato's *Phaedo* or in Christian metaphysics more generally. The metaphysical system of creation in Samkhya is much more complex than either of these Western examples.

When *purusha* first focuses on *prakriti*, *buddhi*, or spiritual awareness, results. Spiritual awareness gives rise to the individualized ego or I-consciousness that creates five gross elements (space, air, earth, fire, water) and then five fine elements (sight, sound, touch, smell, and taste). These in turn give rise to the five sense organs, the five organs of activity (used to speak, grasp, move, procreate, and evacuate), and the mind that coordinates them.

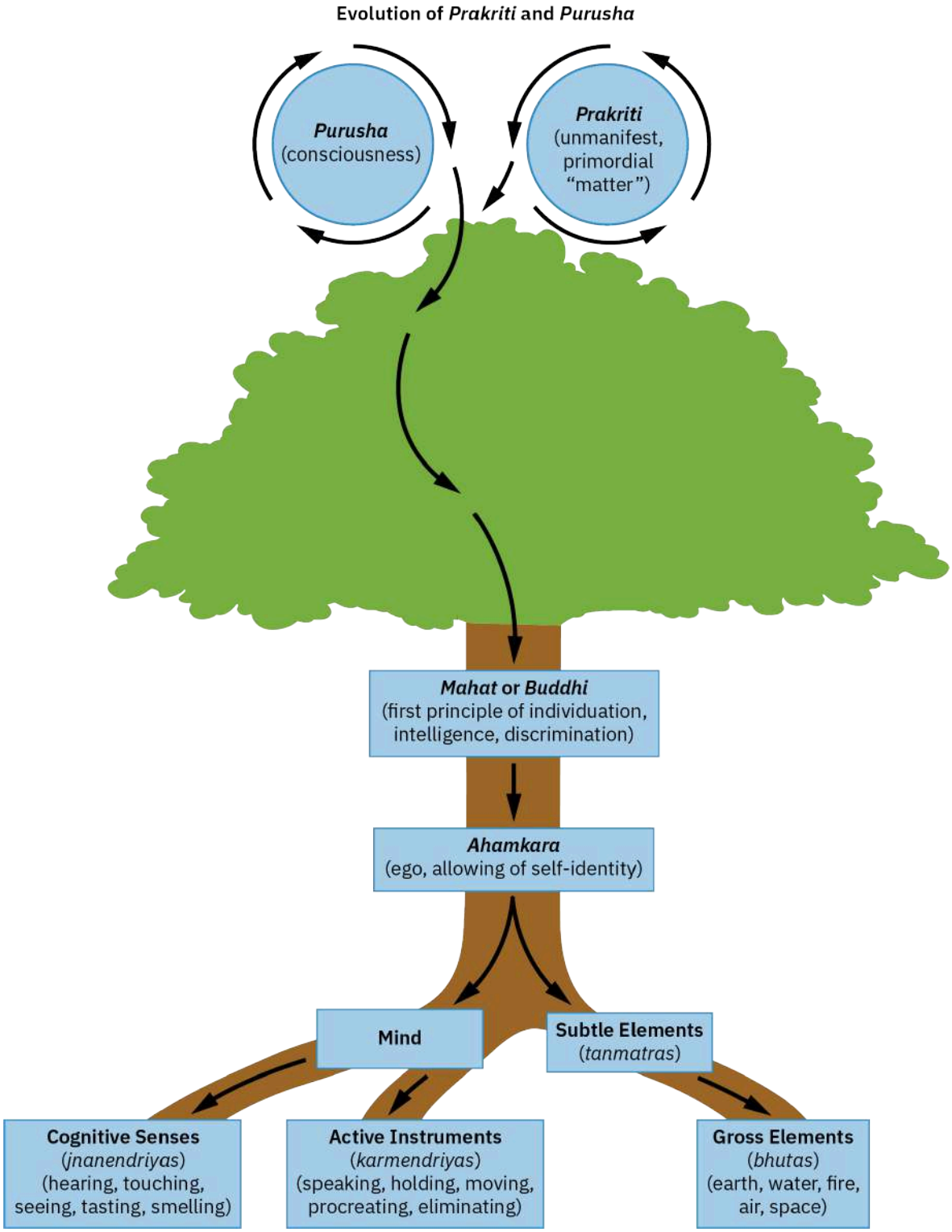

FIGURE 3.7 In Hinduism, the interaction between *purusha* (pure, absolute consciousness) and *prakriti* (matter) is understood to result in many elements of existence. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

Yoga

Yoga has become popularized as a fitness practice throughout the world, but the Westernization of this concept has emptied it of much of its original content. Although yoga instructors will still sometimes use Sanskrit

terms for various poses, the movement has largely lost its cultural and spiritual vitality as it has become popular in the West. It originally developed during the Vedic period and influenced Buddhist meditation practices.

First mentioned in the *Rigveda*, Yoga is the mental process through which an individual's soul joins with the supreme soul. Originally a part of the Samkhya school, it emerged as a practice during the first millennium BCE. The teachings of the sage Patanjali, who lived circa 400 BCE, regarding ancient Yoga traditions and beliefs were compiled into approximately 200 Yoga sutras. The purpose of Yoga is the stopping of the movement of thought. Only then do individuals encounter their true selves, and only then is the distinction between the observer and that which is being observed overcome (Rodrigues 2018).

Yoga involves eight limbs. The first involves the observance of the *yamas*, moral restraints that keep individuals from being violent, lying, stealing, hoarding, and squandering vital energies (often interpreted as a practice of celibacy). The second limb consists of personal codes of conduct, known as the *niyamas*—purity, discipline, self-study, contentment (gratitude and nonattachment), and surrender to the higher being. The third and fourth limbs, familiar to Western practitioners, are the postures, *asana*, and breath control, *pranayama*. The fifth and sixth limbs involve the mastering of the senses needed to achieve a peaceful mind and focus, the ability to concentrate deeply on one thing—a mental image, a word, or a spot on the wall (Showkeir and Showkeir 2013). The seventh limb involves meditation, which allows one to reach the eight limb, *samadhi*, the oneness of the self and true reality, the supreme soul.

During the Upanishadic period (900–200 BCE), Yoga was incorporated into the new philosophic traditions that gave rise to Jainism and Buddhism. Yoga influenced the emergence of Bhakti and Sufism within Islamic culture in the 15th century CE following the conquest of India by Islamic leaders. New schools and theories of Yoga evolved. Swami Vivekananda's translations of scriptures into English facilitated the spread of Yoga in the West in the 19th century. Today, Yoga is practiced as a form of spirituality across the globe (Pradhan 2015).

Nyaya

Nyaya, which can be translated as "method" or "rule," focuses on logic and epistemology. Scholars seek to develop four of the Hindu *pramanas*, or proofs, as reliable ways of gaining knowledge: perception, inference, comparison, and testimony. Practitioners seek liberation from suffering through right knowledge. They believe that everything that exists could be directly perceived and understood if only one had the proper method for doing so. False knowledge is delusion that precludes purification and enlightenment.

Vaisheshika

The Vaisheshika system developed independently of Nyaya but gradually came to share many of its core ideas. Its epistemology is simpler, allowing for only perception and inference as forms of reliable knowledge. It is known for its naturalism, and scholars of the Vaisheshika school developed a form of atomism. The atoms themselves are understood to be indestructible in their pure state, but as they enter into combinations with one another, these mixtures can be decomposed. Members of the Vaisheshika school believe that only complete knowledge can lead to purification and liberation.

Mimamsa

The Mimamsa school was one of the earliest philosophical schools of Hinduism, grounded in the interpretation of the Vedic texts. It seeks to investigate *dharma*, or the duties, rituals, and norms present in society. The gods themselves are irrelevant to this endeavor, so there are both theistic and atheistic aspects of this school. Scholars of the Mimamsa school carefully investigate language because they believe that language prescribes how humans ought to behave.

Vedanta

Vedanta comprises a number of schools that focus on the Upanishads, and the term itself signifies the end or culmination of the Vedas. All the various Vedanta schools hold that *brahman* exists as the unchanging cause of

the universe. The self is the agent of its own acts (*karma*), and each agent gets their due as a result of karma. As with the other Hindu schools, adherents of Vedanta seek liberation from the cycle of death and rebirth.

Like many philosophical traditions, classical Indian philosophy casts the living world as something to ultimately escape. Practices and teachings such as Yoga provide a particularly explicit set of instructions on how one might go about achieving this transcendent aim. The incorporation of these teachings into other traditions and cultures, in both the past and the present, points to their broad and enduring appeal.

3.3 Classical Chinese Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Distinguish the three main schools of classical Chinese philosophy: Confucianism, Mohism, and Daoism.
- Explain the five constant virtues of Confucian moral philosophy.
- Identify the key principles of Mohism.
- Evaluate Daoism's approach to ethics.

In 2013, archaeologists made a remarkable discovery—Chinese characters on a stone axe dating to 5,000 years ago (Tang 2013). Previously, the earliest known Chinese characters had been dated to approximately 1600 BCE. The stone axe suggests that a written language was in use much earlier than previously thought.

The first written records referring to names, dates, and accounts that were part of Chinese prehistory, like the details of other prehistoric periods around the world, are unverifiable. But this discovery of very early writing suggests that what were once considered myths of Chinese history may have a basis in reality. The so-called Five Emperors and the great leaders Yao, Shun, and Yu are frequently referenced in early writings. These great leaders are identified as sages and are said to have invented the key tools for agrarian civilization, including traps, nets, the plow, and river dams to provide a stable water supply.

CONNECTIONS

Read more about the role of sages in the chapter on introduction to philosophy.

That early sages were rulers and inventors of key technological advances is typical of Chinese thought, which emphasizes the practical importance of wisdom. Classical Chinese philosophers were less interested in questions of epistemology and logic; instead, the most enduring impact of classical Chinese philosophy pertained to ethics. Chinese philosophers were less concerned with bridging the gap between internal thought (subjectivity) and the external world (objectivity) than with understanding how the individual fits in a larger social system so that each may act in the best possible way. This section will examine how the main schools of Chinese philosophy—Confucianism, Daoism, and Mohism—address these questions.

Early Chinese Philosophical Thought prior to Confucius

Philosophical thought in China initially developed during an epoch known as the Spring and Autumn period, between the eighth and fifth centuries BCE. The period gets its name from a historical document attributed to Confucius called the *Spring and Autumn Annals*. This period was characterized by the rise of a sophisticated feudal system and relative stability in Chinese politics. Despite advances in government, agriculture, art, and culture, the earliest Chinese texts reveal a concern with the supernatural and highlight the connections that were thought to exist between human beings and the spiritual realm. Great rulers governed not only the affairs of human beings but also the spiritual forces that influence human affairs (Fung 1952). Similarly, the arts of divination, astrology, and magic were celebrated as evidence of the capacity of some human beings to manipulate spiritual forces to benefit humanity.

Magical and mystical thinking of this early period was connected to scientific and philosophical thought. For instance, it was thought that there were five fundamental elements: earth, wood, metal, fire, and water. It was

believed that there was connection between these five elements and the five visible planets (Mercury, Venus, Mars, Jupiter, and Saturn) as well as the five constant virtues (benevolence, righteousness, propriety, wisdom, and trustworthiness). The connections between human virtues, the planets, and the material elements provided some rational basis for belief in spiritual and magical forces (Fung 1952).

FIGURE 3.8 Huangdi of China, a mythical-historical sage from the third millennium BCE, is considered both the first ruler to establish a centralized state in China and the author of the texts that served as the basis for Chinese traditional medicine for thousands of years. (credit: "Chinese Woodcut, Famous Medical Figures: The Yellow Emperor" by Gan Bozong/Wellcome Collection, Public Domain)

Early Chinese writings often refer to the concept of heaven in opposition to the earth, but the word has a meaning that is likely unfamiliar to a modern Western audience. In these texts, the word *heaven* might refer to a material or physical space, like the sky; a ruling or presiding power, like the emperor; something over which human beings have no control, like fate; nature as a whole; or a moral principle guiding human action. Some of these resemble the familiar Western religious concept, but others are quite different. Nonetheless, records of great speeches in the *Zuozhuan* suggest that even in the sixth century BCE, leading thinkers of the period encouraged people to move away from a concern with heavenly matters and toward a greater interest in human affairs on Earth (Fung 1952).

Writings from this period also show the beginnings of the theory of **yin and yang**, the two fundamental forces that are characterized as male and female, or dark and light, or inactivity and activity. The move toward a theory that explains natural phenomena through fundamental forces rather than through spiritual or heavenly forces characterizes a shift from a more mythological and religious age to a more rational and philosophical age.

Another key concern of early Chinese texts is distinguishing between identity and harmony, where harmony is understood to produce new things, while identity does not. The point seems to be that whereas the same matter or form repeated does not generate anything novel, two or more different things, when combined together in a harmonious way, can produce something new. To illustrate, consider the fact that there is no music if there is only one note, but many different notes in harmony with one another can produce beautiful

melodies. A wise and powerful ruler combines elements in harmonious ways to influence their citizens and exercise their power. Whether the elements are five tastes; five colors; the six notes of the pitch pipe; the ingredients of soup; the forces of wind, weather, or seasons; or the five virtues, a wise leader institutes a harmonious relation between these elements, and that relation is what is said to be responsible for the leader's success.

Confucianism

Confucius (551–479 BCE) was the founder of **Confucianism**, a philosophy that has influenced society, politics, and culture in East Asia for more than 2,000 years. Confucius lived just before the beginning of what is called the Warring States period, a time in Chinese history plagued with violence and instability. Though not a member of the aristocracy, Confucius rose from lowly positions to become the minister of justice of Lu, a province in eastern China. He challenged three powerful families that were trying to wrest control of the government. After a clash, Confucius left his home with a small group of followers, hoping to serve as an adviser for rulers in other provinces. After 14 years, he returned to Lu and was able to provide some advice to government ministers, but he never achieved his goal of finding a leader to carry out his ideas (Huang 2013). Confucius is credited with authoring or editing the Chinese classical texts that became the core educational curriculum for hundreds of years, though it was only after his death that Emperor Wudi of the Han dynasty first adopted Confucianism as the official state ideology.

One measure of the immediate impact of Confucius's success is that he spawned an entire class of scholars known as *shih*, who were trained in classical studies and language and were only suited for teaching and government work. They maintained their livelihood through a system of patronage. This system has had an enduring impact in China. Contemporary exams for government officials include testing on traditional knowledge about classical Chinese philosophy and literature (Fung 1952).

Though Confucius was labeled an atheist and considered an innovator, he was in other ways culturally conservative. He believed in a well-ordered society where rules and guidance come from the very top (the emperor or "the heavens," as it may be). Scholars today identify Confucianism as a form of **virtue ethics** because it is an approach to ethics that focuses on personal virtue or character.

CONNECTIONS

Learn more about Confucianism and virtue ethics in the chapter on normative moral theory.

Benevolence and Reciprocity

The Confucian concept of *de* is closely related to moral virtue in the sense that *de* identifies characteristics of a person, understood to be formed through habitual action, that make it more likely the person will act in morally excellent ways. In Confucianism, the five constant virtues are *ren*, *yi*, *li*, *zhi*, and *xin*. Each of these terms is difficult to translate consistently, having varied meanings. Loose translations are sometimes given as follows: *ren* is benevolence, *yi* is righteousness, *li* is propriety, *zhi* is wisdom, and *xin* is trustworthiness. More broadly, ***ren*** means something like shared humanity, empathy, or care for others. Similarly, the institutionalized rituals of the Zhou dynasty are captured in the Chinese word ***li***, which is translated as both propriety and ritual. Though Confucius emphasized the importance of ritual and tradition in daily practice, he also recognized that such actions are empty if they do not have a solid foundation in benevolence. These terms can be seen related in the following passage: "If a man is not *ren* [benevolent], what can he do with *li* [ritual]? If a man is not *ren*, what can he do with music?" (Confucius 2015, p. 9, 3.3).

To emphasize the relational and communal character of Confucian ethics, it is worth noting that alongside the five virtues, Confucius highlights three fundamental bonds or relationships: father and son, lord and retainer, and husband and wife. These bonds designate the fundamental relationships that are necessary for social life (Knapp 2009, 2252). The ethical obligations of children to their parents are frequently captured in the notion

of **filial piety**, or simply *filiality*, which is a widespread Chinese value. Even though Confucius emphasizes that there is a subordinate relation between sons and their fathers, wives and their husbands, and subjects and their lords, he also recognizes that the superior party has obligations to the subordinate one. These obligations can be characterized by the virtue of benevolence, wherein the good and upstanding person demonstrates goodwill toward those with whom they have relations. Whereas the virtue of benevolence emphasizes the common humanity of all people and seems to advise a common concern for all, filial piety introduces the idea of care with distinctions, where the moral and right thing to do is to show compassion to all human beings but to recognize that some people are owed more than others. In the case above, Confucius clearly advises that greater concern is due to one's family members, then to one's local community, and finally to the state.

An important concept in Confucianism is *zhong*, usually translated as "loyalty." Later commentators have defined *zhong* as "the 'exhaustion of one's self' in the performance of one's moral duties" (Fung 1952, 71); it might also be translated as conscientiousness or devotion. Another related virtue is reciprocity. Confucius explains reciprocity with a version of the Golden Rule: "Zigong asked, 'I[s] there a single saying that one may put into practice all one's life?' The Master said, 'That would be "reciprocity": That which you do not desire, do not do to others'" (Confucius 2015, p. 85, 15.24).

Each of these virtues is identified as fundamental, but they all are expressions of the underlying virtue of benevolence. The importance of benevolence runs through the relational and community-driven nature of Confucian ethics. This is quite different from Western ethics, particularly modern Western ethics, which emphasizes the rights, freedoms, and responsibilities of individuals.

Wisdom and the *Dao*

The Chinese concept of ***dao*** is another difficult-to-translate term. Often, it is interpreted as "way" or "path," but in Confucius, it is just as frequently translated as "teaching." One can see the goal of Confucius's teaching as relating a way or pattern of behavior that could be adopted by careful students. The wisdom gained through reading and, more importantly, living according to the *dao* is a kind of natural awareness of what is good and right and a distaste for what is wrong. Confucius also recognizes that a rejection of materiality is a sign of one who follows the *dao*. He frequently cites poverty, the ability to enjoy simple foods, and a lack of concern for the trappings of wealth as signs of one who is devoted to the right path or right ethical teachings.

Propriety and *Junzi*

One of the five constant virtues is propriety, in the sense of following the appropriate rituals in the appropriate contexts. Rituals include wearing ceremonial dress, reading and reciting the classic poetry of the *Shijing*, playing music, and studying culture. However, Confucius also makes clear that the foundations of ritual lie in filial respect for parents and elders, demonstrating care and trustworthiness, and having good relations with people in general (Confucius 2015, pp. 1–2, 1.6). Acting according to propriety or ritual is connected to the idea of the ***junzi***, a person who represents the goal or standard of ethical action and acts as a model for others. One can observe key characteristics of virtue by listening to Confucius's description of the *junzi*. For instance, he suggests that a *junzi* is someone who is thoughtful, but decisive: "The *junzi* wishes to be slow of speech and quick in action" (Confucius 2015, p. 17, 4.24). Similarly, Confucius frequently comments on the lack of material desires or a rejection of material wealth as a sign of the *junzi*'s virtue: "The *junzi* does not hem his upper robes with crimson or maroon. He does not employ red or purple for leisure clothes. In hot weather, he always wears a singlet of fine or coarse hemp as an outer garment." (Confucius 2015, p. 47, 10.6).

These virtuous characteristics are connected to propriety and one's obligations toward others in interesting ways. Confucius articulates what is required in order to become a *junzi* as an ordered series of obligations. The best and highest sense of a *junzi* is one who serves their lord faithfully and without shame, the next best is one who is thought to be filial by their local community, and the least of the *junzi* is one who can keep their word and follow through on their actions. This suggests that personal responsibilities to others—keeping one's word and following through on one's actions—are the minimum, most basic requirements for being a *junzi*; next is

being known as one who is respectful of one's parents and elders in one's local community, and greater than that is being loyal and trustworthy to the regional government.

In a famous passage on filial piety, Confucius introduces a potential moral dilemma for the *junzi*: "The Lord of She instructed Confucius, saying, 'There is an upright man in my district. His father stole a sheep, and he testified against him.' Confucius said, 'The upright men in my district are different. Fathers cover up for their sons and sons cover up for their fathers. Uprightness lies therein'" (Confucius 2015, p. 70, 13.18). Here, Confucius suggests that the appropriate way to resolve the dilemma is to favor familial relations over relations with the state. This is consistent with the previous passage, where Confucius suggests that good family relations are the most necessary relations to maintain, while relations with the state are the highest relations. What Confucius means is that it is a sign of the highest standards of conduct that one can act in accordance with his obligations to the state, but it is essential for one to maintain obligations to family, so if the two are in conflict, then the *junzi* should uphold the relations within the family.

THINK LIKE A PHILOSOPHER

Consider the moral dilemma presented here. One of your parents has stolen money from their employer, and you are approached by law enforcement asking what you know about the theft. Do you lie to protect your parent, or do you tell the truth? Which is the more ethical thing to do? Confucius gives one answer here, but philosophy texts elsewhere offer other answers. For instance, Plato's *Euthyphro* dialogue begins with Euthyphro telling Socrates that he is prosecuting his father for killing a worker in his fields, claiming that the pious thing to do is to prosecute people who commit murder no matter who they are. Socrates is shocked to hear this and questions Euthyphro on the nature of piety. What do you think? If your obligation to protect a parent is in conflict with your obligation to tell the truth about a theft and follow the law, which obligation do you choose to uphold? Why?

The Legacy of Confucius

It is difficult to overstate the importance of Confucius for Chinese culture, philosophy, and history. After his death, many of Confucius's disciples became influential teachers. The greatest among them were Mencius (372–289 BCE) and Xunzi (c. 310–c. 235 BCE).

Mencius expanded and developed Confucius's teachings, spreading the ideas of Confucianism more widely and securing the philosophical foundations of Confucius's legacy. One of the doctrines for which he is best known is the idea that human beings are innately benevolent and have tendencies toward the five constant virtues. This view led Mencius to argue, for instance, that human beings have a natural disposition toward concern for a child in need or an obviously suffering human being or animal. In one famous example, he argues that all human beings have hearts that are "not unfeeling toward others":

> Suppose someone suddenly saw a child about to fall into a well: anyone in such a situation would have a feeling of alarm and compassion—not because one sought to get in good with the child's parents, not because one wanted fame among one's neighbors and friends, and not because one would dislike the sound of the child's cries. (quoted in Van Norden 2019)

Given that human beings are innately good, it remains for them to develop the appropriate knowledge of how to act on that goodness in order to become virtuous. In order to do so, Mencius encourages people to engage in reflection and the extension of their natural compassion for some to others. For instance, in one account, he tries to convince a king to care for his subjects by reminding the king of a time he felt compassion for an ox that was being led to slaughter. The reflection necessary for extending one's compassion from those for whom one naturally feels compassion to others requires an awareness that is grounded in practical motivation. In this sense, Mencius holds that virtue is the result of knowledge grounded in the caring motivations and relations that individuals have with one another. He locates this grounding in a process of reflection that, he says, is the natural function of the heart.

By contrast with Mencius, Xunzi held that human beings have an innately detestable nature but that they have the capacity to become good through artifice—that is, by acquiring traits and habits through deliberate action. Unlike Mencius, Xunzi did not believe that goodness came from reflection on one's innate tendency toward compassion. Rather, he held that one's innate emotional attachments would lead one to harmful behavior toward others, but through teaching in accordance with Confucian principles, one can become virtuous and ultimately transform those innate tendencies into something beneficial for humankind. This difference in perspective led Xunzi to emphasize the importance of external forces to guide behavior. He thought that the best guide toward virtue was the rituals that were handed down by ancient sages. Along these lines, Xunzi emphasizes the importance of music for developing an appreciation for ritual. Ultimately, rituals are the signposts that help mark the way, which flows from the constant and enduring guidance of heaven. Here, Xunzi returns to Confucius's appreciation for tradition (Goldin 2018).

Long after Confucius's death, in the eighth century CE, a new school of Chinese philosophy known as Neo-Confucianism became prominent. Thinkers such as Han Yu and Li Ao reinvigorated classical Confucianism with less emphasis on tradition and religion and a greater emphasis on reason and humanism. Neo-Confucianism engages critically and seriously with the traditions of Buddhism and Taoism, which had become prominent in Chinese thought. These schools of thought are distinct from Confucius's own philosophy, but they explicitly link their ideas with his. Classical Confucianism and Neo-Confucianism continue to influence modern philosophical writing in China, and their influence extends even beyond China, to Korea, Japan, and Vietnam.

FIGURE 3.9 Although Confucius was considered an atheist by his contemporaries, the following he has inspired has many elements of what most consider a religion. This contemporary Confucian temple in Urumqi, Xinjiang, China, features shrines, altars, and spaces for offerings. (credit: "Confucian Temple" by David Stanley/Flickr, CC BY 2.0)

Confucius remains a central and celebrated cultural figure in China. His teachings have produced a following that at times resembles a religion. The degree to which Confucianism is entrenched in Chinese political and cultural life suggests that it performs the function of what has been called a "civil religion"—namely, a set of cultural ideals without the specific doctrinal components that typically characterize religion that nevertheless provides a common basis for moral norms and standards of conduct in political speech and political life (Bellah 1967).

Daoism

The *dao* as a philosophical concept or a school of philosophical thought is associated primarily with the texts the *Daodejing*, commonly attributed to Laozi or the "Old Master," and the *Zhuangzi*, attributed to Zhuangzi (c.

fourth century BCE). Many contemporary scholars question whether Laozi actually existed. It is likely that both texts are collections of writings from a variety of thinkers who belonged to a common school known as **Daoism**. Daoism is a belief system developed in ancient China that encourages the practice of living in accordance with the *dao*, the natural way of the universe and all things. Daoism is associated with a countercultural religious movement in ancient China, contrary to the dominant, traditionalist Confucianism. The religious movement of Daoism varied depending on the region, but the unifying theme among Daoist religions is a focus on a naturalistic, nontheological view of the underlying basis for morality and goodness. Part of the attraction and variability of Daoism is the fact that the *dao* is commonly understood to be empty of content, equally open to interpretation by anyone. This perspective leads to a kind of anarchism, resisting traditional hierarchies and authorities.

Daoism is highly critical of Confucianism, as can be seen from passages such as the following in the *Doadejing*: "When the Great Dao was discarded, only then came *ren* and right. When wisdom and insight emerged, only then came the Great Artifice. When the six kinship classes fell out of harmony, only then came filiality and parental kindness. When the state is darkened with chaos, only then do the loyal ministers appear" (Eno 2010, p. 15, 18). Here, the author criticizes the five constant virtues of Confucius by suggesting that these emerged only after China had lost its way and been separated from the *dao*. Similarly, the *Daodejing* is highly critical of Confucian benevolence (*ren*) and sagehood. It sees the notions of right, virtue, and goodness as concepts that distract the masses and obscure their awareness of the *dao*. Consequently, it recommends a kind of antisocial tendency to reject the way of the masses and act contrary to conventional wisdom.

The Dao as a Metaethical Concept

One of the ways in which Daoism differs from Confucianism and Mohism is that it emphasizes the grounds for moral norms but refrains from offering specific moral guidelines for action. Daoism starts with a certain conception of the natural world that serves as the basis for an ethical perspective on life, whereas Confucianism largely ignores any description of nature untouched, focusing directly on moral behavior. The *dao* itself is understood as a natural force that guides all life: "Men emulate earth; earth emulates heaven (*tian*); heaven emulates the Dao; the Dao emulates spontaneity" (Eno 2010, p. 17, 25). The general moral guidance of Daoism involves becoming aware of the *dao* and ensuring that one's action doesn't oppose natural forces.

In a general sense, the *dao* is considered to be an order governing the universe from its beginnings through the various forces of nature and reaching into human affairs. The human condition sets human beings against the *dao* and places them in opposition to this underlying force, so most of the *Daodejing* is focused on attempts to bring human beings back into alignment with the *dao*. The text warns, "As a thing the Dao is shadowed, obscure" (Eno 2010, p. 16, 21b). The problem is that the typical strategies for illuminating and clarifying things further obscure the *dao* because the *dao* itself appears contradictory: "To assent and to object—how different are they? Beauty and ugliness—what is the distinction between them?" (Eno 2010, p. 15, 20).

Language and rational concepts pull one away from the *dao*, which is either contentless and empty or contradictory: "When the Dao is spoken as words, how thin it is, without taste" (Eno 2010, p. 21, 35). This is why followers of the *dao* should resist attempts to categorize it in a determinative way: "Those who know do not speak; those who speak do not know" (p. 27, 56). Instead, the one who follows the *dao* is capable of embracing contradiction: "One who knows white but preserves black becomes a standard for the world. Such a one never deviates from constant virtue and returns again to being limitless" (p. 18, 28a). Here, it is evident how Daoists draw lessons about the study and mastery of morality from their understanding of metaphysics. If reality is fundamentally contradictory and escapes the human capacity to capture it in language, then the person who wants to remain closest to fundamental reality should refrain from attempting to categorize it and should be willing to live with contradiction.

That said, this teaching leads to several tensions. It seems difficult to derive ethical prescriptions from nature when nature itself seems to lack a prescriptive force. The *dao* is simply the total forces of nature, neither good nor bad. Yet when Daoists advise one to allow the forces of nature to govern all activity, they themselves must

refrain from theorizing. Nevertheless, in order to provide guidance, the Daoist must speak or write. This leaves the reader in a difficult interpretive position (Hansen 2020).

Skepticism, the belief that one can never attain certain knowledge, is entrenched in Daoism. It's not clear, however, whether the reason for skepticism is that there is no ultimate answer, that there is an answer but it cannot be known, or that the answer can be known but it cannot be communicated. The *Daodejing* suggests that the best path is to recognize the limits of human knowledge: "To know you do not know is best; not to know that one does not know is to be flawed. / One who sees his flaws as flaws is therefore not flawed" (Eno 2010, p. 32, 71).

CONNECTIONS

The chapter on epistemology takes a deeper look at Daoism and other forms of skepticism.

The Ethics of *Wuwei*

Daoist texts teach readers to adopt a stance that is typically called ***wuwei***, meaning nonaction, softness, or adaptiveness to the circumstances at hand. *Wuwei* is contrasted with action, assertion, and control. In the *Zhuangzi*, followers of the *dao* are characterized in a way that resembles the psychological state known as flow, where they find themselves completely absorbed in their task, losing awareness of themselves as a distinct ego and becoming completely receptive to the task at hand. The *Zhuangzi* tells the story of Cook Ding, a butcher who was so skillful that he had used the same knife without sharpening it for 19 years. He never dulled the blade by striking bone or tendon. Instead, he was able to find the gaps in the joints and cut through with the thin edge of his blade, no matter how small the gaps. He explains, "At the beginning, when I first began carving up oxen, all I could see was the whole carcass. After three years I could no longer see the carcass whole, and now I meet it with my spirit and don't look with my eyes" (Eno 2019, p. 23, 3.2). The metaphor of flow also resembles descriptions of *wuwei* that compare it to water: "Nothing in the world is more weak and soft than water, yet nothing surpasses it in conquering the hard and strong—there is nothing that can compare" (Eno 2010, p. 34, 78).

Moreover, being in a state of nonaction, softness, and flow allows one to be spontaneous and reactive to circumstances. Spontaneity is another characteristic of someone who follows the *dao*: "To be sparse in speech is to be spontaneous" (Eno 2010, p. 17, 23). Here, speech seems to be associated with control. This may be because speech exercises a certain control over the world by placing names on things and identifying them as similar to or different from other things, grouping them in categories, and assembling these categories and things into chains of reason. For the Daoists, this puts a distance between humanity and the fundamental forces of nature. The *Zhuangzi* states, "The Dao has never begun to possess boundaries and words have never yet begun to possess constancy" (Eno 2019, p. 23, 2.13). The attempt to use language to provide distinctions in the *dao* obscures the *dao*. This is a function of the nature of words to be true or false, allowable or unallowable. The implication is that these distinctions are foreign to the nature of the *dao*. In another section, the *Zhuangzi* reiterates this principle with the slogan "A this is a that; a that is a this" (Eno 2019, p. 16, 2.7). The point is that anything that can be designated as a "this" could also be designated as a "that," which the author takes to imply that language is relative to the perspective of the speaker.

As a result, the Daoists instruct one to surrender their attempts to understand and control nature: "The wish to grasp the world and control it—I see its futility. The world is a spiritlike vessel; it cannot be controlled. One who would control it would ruin it; one who would grasp it would lose it" (Eno 2010, p. 19, 29a). Inaction and the lack of a desire to grasp or comprehend the nature of the world are characteristic of *wuwei*: "He who acts, fails; he who grasps, loses. / Therefore the sage takes no action (*wuwei*) and hence has no failure, does no grasping and hence takes no loss" (p. 30, 64c). In contrast with Confucius, the Daoists link inaction and the lack of reason (spontaneity) with virtue: "The highest virtue does not act (*wuwei*) and has no reason to act; the lowest virtue acts and has reason to act" (p. 21, 38).

WRITE LIKE A PHILOSOPHER

Philosophers from around the world believe in the human ability to use reason to create both individual and social flourishing. Describe the qualities an individual has to possess to achieve ethical well-being in Aztec, Confucian, and Daoist thought. Then discuss what qualities you personally believe an individual needs to accomplish this goal.

Mohism

The school of **Mohism** is named after the philosopher Mozi (c. 470–391 BCE), who lived immediately after Confucius and was critical of the Confucian school. Less is known about Mozi than Confucius because even the earliest Chinese histories relegated him to relative obscurity. He appears to have been a tradesman who was skilled in his craft and slowly rose through the ranks of civil society. He was trained in Confucianism but resisted the way Confucius was overly wedded to ritual and hierarchy. Mozi was a universalist, insisting on the equal value of all people, without preferential treatment for family, neighbors, and country. He was followed enthusiastically by his disciples, many of them tradespeople who found solace in his egalitarian approach to philosophical questions.

Mozi's followers, known as Mohists, were numerous and intensely loyal during his life and immediately afterward. Stories from this time indicate that he held strict control over his disciples (Fung 1952). Mohism has had a much smaller influence on classical Chinese ethics and philosophy than Confucianism. The absence of immediate cultural relevance should not indicate that Mohism lacks philosophical importance. In fact, it may be argued that in many ways, Mozi is more philosophical in the contemporary sense of the word than Confucius. Whereas Confucius transmitted and codified the ritualistic values and customs of the Zhou dynasty, Mozi challenged traditional values by insisting on a more rational approach to ethics and a rejection of hierarchical norms. He derived his ethical system from first principles rather than tradition. Followers of Mohism developed an interest in traditional areas of philosophy that were neglected by the Confucians, such as logic, epistemology, and philosophy of language.

What is known of Mohism is derived from a collection of texts with obscure authorship, simply titled *Mozi*. The collection originally consisted of 71 texts written on bamboo strip scrolls, though 18 are missing and many have been corrupted through natural degradation. It is unclear how many of the texts were written by Mozi himself or even during his lifetime. It is likely that many of the doctrines surrounding epistemology, logic, and philosophy of language are later developments. The core of the texts consists of 10 three-part essays expounding on and defending the 10 main doctrines of the Mohist school. Those doctrines are presented in five pairs of principles: "Promoting the Worthy" and "Identifying Upward," "Inclusive Care" and "Condemning Aggression," "Moderation in Use" and "Moderation in Burial," "Heaven's Intent" and "Understanding Ghosts," and "Condemning Music" and "Condemning Fatalism" (Fraser 2020a). The doctrines of inclusive care and anti-aggression are discussed below.

Inclusive Care and Anti-aggression

Perhaps the most central doctrine of Mohist philosophy is the principle that every human being is valued equally in the eyes of heaven (*tian*). With minimal religious or theological commitments, Mohists believe that heaven constitutes the eternal and ideal beliefs of a natural power or force that created and governs the universe. According to Mohists, it is apparent that heaven values every individual human being with exactly the same worth. In contrast to Confucius, who emphasized the importance of care with distinctions, Mozi advanced the doctrine of inclusive or impartial care, sometimes translated as "universal love."

The doctrine of inclusive care leads directly to the doctrine of anti-aggression because the greatest threat to human well-being and care is aggression and war. Mozi lived during the period known as the Warring States period, immediately following the decline of the Zhou dynasty. During this period, local rulers fought for power in the absence of a strong central government. Mozi reasoned that the greatest calamities of the world are the

result of wars between states, aggression between neighbors, and a lack of respect among family members. These calamities are the result of partiality in care—that is, thinking that one group of people has a greater value than another. Partiality of care is the basis of loyalty among families and nations, but it is also the source of enmity and hostility between families and nations (Fung 1952).

In defense of the principle of inclusive care, Mozi offers a sophisticated philosophical argument, developed in dialogue form. He starts with the observation that if other states, capitals, or houses were regarded as if they were one's own, then one would not attack, disturb, or harm them. If one did not attack, disturb, or harm others, this would be a benefit to the world. Those who benefit and do not harm others are said to care for others and, therefore, to express inclusive or universal rather than partial care. Thus, inclusive care is the cause of benefit, while partial care is the cause of harm. The virtuous person should benefit the world, so the virtuous person should adopt inclusive care (Fung 1952). Mozi adds another argument by thought experiment: Imagine two people who are sincere, thoughtful, and otherwise identical in thought, word, and deed, except one of them believes in inclusive care while the other believes in partial care. Suppose you had to put your trust in one of the two people to protect yourself and your family. Which would you choose? He concludes that everyone would choose the person who believes in inclusive care, presumably because it would guarantee that their family would be protected and cared for just the same as anyone else. Trusting someone who believes in partial care only works if you know that the person is partial to you.

One of the key aspects of Mohist ethics is that Mozi asks about the appropriate rational basis for moral principles. Instead of starting from tradition and developing a system of ethics that conforms to and explains traditional views, as Confucius had, Mozi prefers to seek a rational ground for his ethical views. In particular, he asks about the appropriate "model" for ordering and governing society. He rejects any of the usual models, such as parents, teachers, and rulers, concluding that one cannot be certain that any of these people actually possess benevolence and therefore provide the right standard for ethical action. Instead, Mozi insists on finding an objective standard that is not fallible in the way a particular person or cultural tradition may be. Ultimately, the only acceptable model is heaven, which is entirely impartial in its concern for all human beings.

This sort of rational reasoning has led scholars to classify Mohism as a form of consequentialism, a philosophical approach that looks at the consequences of an action to determine whether it is moral.

CONNECTIONS

The chapter on normative ethical theory explores Mohism as a type of consequentialism in further depth.

THINK LIKE A PHILOSOPHER

What doctrines within Mohism and Confucianism might have made Confucianism the more popular choice for Chinese rulers?

Mohist Epistemology

The search for "models" sets Mohism apart in terms of its philosophical grounding. Mohists consider a wide range of possible candidates for models, including a rule, law, or definition; a person (i.e., a role model); and a tool or measuring device, such as a yardstick or compass. There are three different types of standards or models for assessing the value of anything: its root (the historical precedent), its source (the empirical basis), and its use (whether it produces benefit). The third standard has priority and reinforces the pragmatic character of Mohism. The purpose of a model is to help a student better follow the way (*dao*). The fact that there are so many different types of models reflects the fact that there are so many different practical contexts in which one needs to understand the appropriate way to act. Models are applied to practical situations not as a

principle or premise in an argument but rather as a prototype for the purpose of selecting things of a certain kind and casting off things that do not conform to that prototype. “The central questions for early Chinese thinkers are not What is the truth, and how do we know it? but What is the *dao* (way), and how do we follow it?” (Fraser 2020a).

Knowledge, for Mohists, is based on the concept of “recognition” or “knowledge of.” This sort of knowledge involves being able to reliably pick out what a given word means rather than understanding or conceptualizing the word. This can be illustrated by a passage in which Mozi says that the blind do not know white and black, not because they are unable to use the terms *white* and *black* correctly, but because they are not able to select the things that are white and differentiate them from the things that are black. For Mohists, there is little value in investigating the conceptual or ideal nature of terms like *white* and *black*. The focus is, instead, entirely practical: they want to be able to distinguish the things that are white from the things that are black. It is not necessary to know the essence or nature of something in order to be able to reliably distinguish it from other things. Similarly, Mohists have little interest in seeking justifications or foundations of knowledge. Such justifications are unnecessary in order to make the correct distinctions, which is the primary aim of knowledge. Reliable and consistently correct identification is what counts as knowledge, not having access to the right rational justifications or definitions (Fraser 2020a).

Summary

3.1 Indigenous Philosophy

When humans shift from religious answers to questions about purpose and meaning to more naturalistic and logical answers, they move from the realm of myth to reason. In Greek, this movement is described as a move from mythos to logos, where mythos signifies the supernatural stories we tell, while logos signifies the rational, logical, and scientific stories we tell. Rather than seeing a decisive break from mythological thinking to rational thinking, we should understand the transition from mythos to logos as a gradual, uneven, and zig-zagging progression.

Indigenous thought has in the past been seen as wisdom lying outside the realm of academic discussion; however, recent scholarship has challenged this assumption. The philosophies of Indigenous African and North American peoples provide understandings of the self and of society that complement and challenge traditional Western ideas. The Maya possessed advanced understandings of mathematics and astronomy as well as metaphysical concepts of a solar life force. The Aztec had a highly developed epistemology that grounded truth within an understanding of an individual's character and recognized the fundamental and total character of the universe as a godlike force or energy.

3.2 Classical Indian Philosophy

Indian philosophical traditions are a few centuries older than the earliest European philosophical traditions.

Philosophers from both Greek and India see philosophy as not just a theoretical activity but also a practical endeavor—a way of life. The earliest philosophical texts in India are the four Vedas. The Upanishads, a body of scripture added later, contain much of the philosophical core of these Hindu scriptures. According to this tradition, there is a rigid hierarchy to the cosmos that is reflected in the earthly world. Six *darshanas*, or schools of thought, emerged in Hindu philosophy, each pointing to a different path to seeing and being seen by a sacred being or beings.

The six principal darshanas are Samkhya, Yoga, Nyaya, Vaisheshika, Mimamsa, and Vedanta. Samkhya holds that everything is composed of *puruṣa* (pure, absolute consciousness) and *prakriti* (matter). Liberation occurs when the mind is freed from the bondage of matter. The purpose of yoga is the stopping of the movement of thought. Only then do individuals encounter their true selves. Nyaya, which can be translated as "method" or "rule," focuses on logic and epistemology. The Vaisheshika system developed independently of Nyaya, but gradually came to share many of its core ideas. Its epistemology was simpler, allowing for only perception and inference as the forms of reliable knowledge. The Mimamsa school was one of the earliest philosophical schools of Hinduism, and it was grounded in the interpretation of the Vedic texts. It sought to investigate *dharma* or the duties, rituals, and norms present in society.

3.3 Classical Chinese Philosophy

Early Chinese writings show the beginnings of the theory of yin and yang, the two fundamental forces that are characterized as male and female, dark and light, inactivity and activity. In Confucianism, the five constant virtues are benevolence (*ren*), righteousness (*yi*), propriety (*li*), wisdom (*zhi*), and trustworthiness (*xin*). The unifying theme among Daoist religions is a focus on a naturalistic, nontheological view of the underlying basis for morality and goodness. The general moral guidance of Daoism involves becoming aware of the *dao*, or the natural way of things, and ensuring that one's actions don't oppose those natural forces.

The most central doctrine of Mohist philosophy is the principle that every human being is valued equally in the eyes of heaven (*tian*). In contrast to Confucius, who emphasized the importance of care with distinctions, Mozi advanced the doctrine of inclusive care, following the principle that every human being has equal value in the eyes of heaven. The doctrine of inclusive care leads directly to the doctrine of anti-aggression because the greatest threat to human well-being and care is mutual aggression and war.

Key Terms

Codices singular *codex*; Maya books that transmitted the collective mathematical, scientific, historical, religious, and metaphysical knowledge of the Maya.

Confucianism a normative moral theory developed in ancient China during the Warring States period that proposes that the development of individual character is key to the achievement of an ethical and harmonious society.

Dao in Confucianism, ethical principles or a path by which to live; in Daoism, the natural way of the universe and all things.

Daoism a belief system developed in ancient China that encourages the practice of living in accordance with the *dao*, the natural way of the universe and all things.

Darshana a way of beholding the sacred or manifestations of the divine in Hindu thought.

Epistemology the study of knowledge, involving questions such as how humans know what they know, what is the nature of true knowledge, and what are the limits to what humans can know.

Ethnophilosophy the study of the philosophies of Indigenous peoples.

Filial piety the ethical obligation of children to their parents.

Indigenous philosophy the ideas of Indigenous peoples pertaining to the nature of the world, human existence, ethics, ideal social and political structures, and other topics also considered by traditional academic philosophy.

Junzi in Confucianism, a person who is an exemplary ethical figure and lives according to the *dao*.

Li rituals and practice that develop a person's ethical character as they interact with others.

Logos a way of thinking that rationally analyzes abstract concepts and phenomena independent of accepted belief systems.

Mohism a type of consequentialism established in ancient China by Mozi during the Warring States period.

Mythos a way of thinking that relies on the folk knowledge and narratives that often form part of the spiritual beliefs of a people.

Prakriti in Hindu thought, matter; one of two elements that make up the universe.

Purusha in Hindu thought, pure, absolute consciousness; one of two elements that make up the universe.

Ren a central concept in Confucianism that refers either to specific virtues or to someone with complete virtue.

Samkhya a dualist approach in Hindu metaphysics that views the universe as composed of pure consciousness and matter, which undergoes an evolutionary process.

Skepticism a philosophical position that claims people do not know things they ordinarily think they know.

Transformative model of identity an understanding of social identity as spiraling both outward and inward through expanding and retracting influences over a certain area of land.

Upanishads Hindu texts that contain the philosophical core of Hinduism.

Vedas the four oldest books within Hinduism, consisting of the *Rigveda*, the *Samaveda*, the *Yajurveda*, and the *Atharvaveda*.

Virtue ethics an approach to normative ethics that focuses on character.

Wuwei a natural way of acting that is spontaneous or immediate, in which a person's actions are in harmony with the flow of nature or existence.

Yin and yang an explanation of natural phenomena through two fundamental forces, the male yin and the female yang.

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Review Questions

3.1 Indigenous Philosophy

1. How are the terms *mythos* and *logos* used to classify bodies of thought?
2. What are some of the challenges of studying Indigenous philosophy?
3. How did the study of African thought as a philosophy begin?
4. What are some of the shared metaphysical ideas between African and Native American philosophies?
5. How did Maya rulers use the metaphysical beliefs of their society to establish political legitimacy?

3.2 Classical Indian Philosophy

6. What are some similarities between classical Greek and Indian philosophies?
7. What cosmological ideas emerged from the *Rigveda*?
8. What metaphysical approach is advanced by the Samkhya school of philosophy?
9. What is the principal epistemological tool found in the Nyaya school of philosophy?

3.3 Classical Chinese Philosophy

10. Why is Confucianism considered a conservative philosophy?
11. What are the five constant virtues in Confucianism?
12. What is the relational and communal character of Confucian ethics?
13. What are the legacies of Confucianism and Mohism, and what factors might explain this?
14. What is the most central doctrine of Mohism, and how does it contrast to Confucian ethics?
15. In what way can Daoism be seen as a rejection of Confucianism?
16. What are unifying themes within Daoism?

Further Reading

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Commentary. Self-published, CreateSpace.

The Emergence of Classical Philosophy

4

FIGURE 4.1 The pharaoh Akhenaten, his wife Nefertiti, and their children are blessed by the god Aten, represented by the sun. The Egyptian conception of Aten as the source of all that existed was influential in the metaphysics embraced by the Greeks. (credit: modification of work "Akhenaten, Nefertiti, and the Royal Princesses Blessed by the Aten" by MCAD Library/Flickr, CC BY 2.0)

CHAPTER OUTLINE

INTRODUCTION Scholars long regarded ancient Greece as the birthplace of Western philosophy. After all, the word *philosophy* itself derives from the ancient Greek words *philos* (affection) and *sophos* (wisdom)—and indeed, ancient Greece produced the great minds of Socrates, Plato, and Aristotle. Yet the path of classical philosophy begins in North Africa, reaches Greece and Rome, jumps back across the Mediterranean, and spreads from Persia to Spain before it emerges to support what is frequently called the birth of modernity. This chapter examines that path.

In order to consider the historical path of philosophy across these various cultures, we need to begin with a brief account of how philosophers have studied the history of philosophy and how we might consider the practice of philosophy throughout history before turning to these historical traditions themselves.

4.1 Historiography and the History of Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- List and briefly describe three different approaches to the history of philosophy.
- Identify the strengths of each of the three different approaches to the history of philosophy.
- Identify the weaknesses of each of the three different approaches to the history of philosophy.

We will begin our discussion of the history of philosophy and the historiography of philosophy, or the study of how to conduct history pertaining to philosophy, with two fundamental questions: Why should one study the history of philosophy? And how should one study the history of philosophy? In response to the first question, the history of philosophy has both intrinsic and instrumental value. It can give us a more accurate understanding of our philosophical past while also informing contemporary approaches to philosophy. Historical authors provide a source of arguments, ideas, and theories that inform contemporary debates. Historical writings may inspire us. Finally, understanding the process by which philosophical ideas have developed can help contemporary philosophers better understand the debates and ideas that are important to them. In response to the second question: How should one study the history of philosophy? We may distinguish, broadly, between three main approaches to the history of philosophy—the presentist approach, the contextualist approach, and the hermeneutic approach.

Presentist Approach

A **presentist approach** to the history of philosophy examines philosophical texts for the arguments they contain and judges whether their conclusions remain relevant for philosophical concerns today. A presentist approach concerns itself with the present concerns of philosophy and holds past philosophers to present standards. This approach allows us to benefit from a rich body of past wisdom—even in our everyday lives. We might, for example, find strength from the Confucian proverb "Our greatest glory is not in never falling, but in rising every time we fall." Inspired by the maxim of English philosopher Edmund Burke (1729–1797)—as restated by President John F. Kennedy—"The only thing necessary for the triumph of evil is for good men to do nothing," we might volunteer, donate, or take action to help a cause. When attempting to understand a challenging situation, we might apply Occam's razor, the idea that the most likely explanation is the one that requires the fewest assumptions.

The main limitation to this approach is that it neglects various contexts in which past philosophers lived and worked. This does not mean that the arguments found in philosophical texts are not important and that we should not focus on them. But the focus on arguments at the exclusion of anything else causes problems. It downplays the various ways that philosophers communicate their ideas and try to persuade readers of their truth.

In addition to reading philosophical texts too narrowly, the exclusive focus on arguments has been criticized for yielding a profoundly ahistorical understanding of the development of philosophy. Past philosophers are judged by contemporary standards instead of being understood in relation to the historical and cultural contexts in which they lived and wrote. Philosophers are found wanting because they do not contribute to contemporary debates in subfields such as epistemology (the study of the basis for knowledge) and metaphysics (the study of the nature of reality). Additionally, ideas from contemporary philosophy may be attributed to historical philosophers in a way that does not accurately apply to them. This ignores the differences in time, culture, and context between contemporary philosophers and historical philosophers, an error known as anachronism.

An example will clarify these points. Plato's Allegory of the Cave, which describes humanity as prisoners within a cave reacting to shadows on the wall, might be read in terms of how it contributes to debates in epistemology or metaphysics. However, it is anachronistic and inaccurate to claim that this is exclusively what it is about, as the Allegory of the Cave also has political significance specific to Plato's time and social context. We can only

grasp the political significance once we understand the situation in Plato's home city of Athens during his lifetime. Athens had suffered a terrible defeat at the hands of Sparta in the Peloponnesian War. Following the war, Athens's democratic government was replaced with a group of wealthy tyrants who were sympathetic to Sparta, called the Thirty Tyrants. Plato, who had relatives among the Thirty Tyrants, was thought to be sympathetic to the Thirty Tyrants and suspicious of those who were advocating for democracy. But when we realize that the Thirty Tyrants were the government responsible for Athens's humiliating defeat and for the death of Plato's beloved teacher Socrates, we understand why Plato questions the limits of human understanding. Plato's political project becomes easier to understand as well, for in questioning the limits of human knowledge and seeking a deeper understanding of the truth, the Allegory of the Cave attempts to solve what Plato sees as the problems inherent in both tyrannical and democratic forms of government. Plato's hope is to foster generations of individuals who have a greater understanding of truth and will serve capably in government.

CONNECTIONS

The chapter on metaphysics covers the Allegory of the Cave in more detail.

Contextualist Approach

The **contextualist approach** to philosophical texts aims to be more sensitive to the history surrounding their creation. This approach attempts to understand historical philosophy on its own terms, using concepts and ideas that would have been appropriate to the time period in which they were written. Contextualist understandings of philosophy are interested in getting the history right. They give us a richer understanding of philosophical ideas and help avoid misinterpretation.

For example, an often-misunderstood passage from the Hebrew Bible is "an eye for an eye." Many today interpret this passage as a justification for violence, not realizing that the passage reflects a body of laws meant to restrict retaliation. For millennia, when a wrong was done to an individual, a family or another group to which the individual belongs would often seek retribution. This retribution was viewed as a means both of achieving justice and of dissuading others from wronging the family or group in a similar way in the future. The biblical law, which was eventually adopted widely across the Middle East, meant that the wrongdoer or the group to which the wrongdoer belonged was not to be made to pay more than an eye for an eye. In this way, a justice system might prevent the extralegal cycle of increasingly violent retribution that still takes place between some groups, such as in gang or underworld warfare. Moreover, the biblical law also set monetary equivalents for specific wrongdoings so that physical harm, as a form of punishment, could be avoided. By understanding the context of the phrase "an eye for an eye," we gain greater insight into human behavior and how systems of justice can prevent violence from cycling out of control.

While the contextualist approach makes possible this detailed and rich type of understanding, there is a danger that contextualist historians might fall into the trap of antiquarianism. This means that they might become interested in the history of philosophy for history's sake, ignoring the instrumental value of historical philosophy for contemporary philosophers.

Hermeneutic Approach

A third approach to the history of philosophy attempts to address problems inherent to the presentist and contextualist approaches. The **hermeneutic approach** takes the historical context of a text seriously, but it also recognizes that our interpretation of history is conditioned by our contemporary context. The hermeneutic historian of philosophy recognizes both that a contemporary philosopher cannot abandon their contemporary framework when interpreting historical texts and that the context of historical authors deeply influenced the way that historical texts were written. Additionally, hermeneutic philosophers contend that philosophical ideas are historical in nature; that is, no philosophical concept can be understood if it is completely abstracted from the historical process that generated it. However, a hermeneutic approach to

philosophy can fall prey to a tendency to think about history as culminating in the present. This view of history might be summarized as an account of history that says, "a, then b, then c, then me." While this may be the way things look now, it's important to remember that our contemporary perspective will be eclipsed by future historians of philosophy. Also, we ought not assume that history has a purpose or progression. It may be that the sequence of historical events lacks any goal.

Table 4.1 summarizes these three approaches, as well as the strengths and weaknesses of each.

Approach	Brief Description	What it Offers	Where it Can Fall Short
Presentist	Concerns itself with the present questions of philosophy and holds past philosophers to present standards	Allows people to benefit from a rich body of past wisdom	Neglects the contexts in which past philosophy was developed
Contextualist	Attempts to understand historical philosophy on its own terms, using concepts and ideas that would have been appropriate to the time period in which they were written	Provides a richer understanding of philosophical ideas and helps avoid misinterpretations	Might become interested in the history of philosophy for history's sake, ignoring the instrumental value of historical philosophy for contemporary people
Hermeneutic	Recognizes both that contemporary people cannot abandon their own frameworks when interpreting historical texts, and that the context of historical authors deeply influenced the way that historical texts were written	Grounds the philosophy of the past within a historical context, while also acknowledging its lasting value	Can fall prey to a tendency to think about history as culminating in the present

TABLE 4.1 Three Different Approaches to Studying the History of Philosophy

4.2 Classical Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Evaluate the influence of Egyptian scholarship on classical Greek philosophy.
- Describe the key ideas of the most influential Greek philosophers.
- Describe the key ideas of the most influential Roman philosophers.
- Distinguish between major schools of classical thought.

Egyptian Origins of Classical Philosophy

The understanding that the roots of classical thought lie, at least in part, in Egypt is as old as the ancient Greeks themselves. In *The Histories of Herodotus*, the ancient Greek historian Herodotus (c. 484–425 BCE) traces Greek beliefs about the gods, religious practices, and understanding of the natural world to Egypt. Herodotus claimed the ancient Greeks adopted practices and ideas as diverse as solemn processions to temples, the belief in an immortal soul, and the knowledge of geometry and astrology from the Egyptians. Herodotus notes that the people of Heliopolis, one of the largest cities in ancient Egypt, "are said to be the most learned in records of the Egyptians" (Herodotus 1890, 116). Plato spent 13 years in Heliopolis, and Pythagoras (c. 570–495 BCE) studied mathematics in Heliopolis for more than two decades (Boas 1948).

FIGURE 4.2 This obelisk, erected in Heliopolis, Egypt, in approximately 1200 BCE, was transported to Rome in the 16th century and made part of that city's public environment. Similarly, many of the ideas of what is now considered classical Greek philosophy can be traced back to Egyptian origins. (credit: "Egyptian Obelisk (Metres 25), Erected at Heliopolis" by Carlo Raso/Flickr, Public Domain)

Egyptian and Babylonian Mathematics

Could Pythagoras have learned, rather than discovered, the "Pythagorean" theorem—the law of relationships between the sides and hypotenuse of a right triangle—in Egypt? Almost assuredly. A Babylonian clay tablet dating to approximately 1800 BCE, known as Plimpton 322, demonstrates that the Babylonians had knowledge not only of the relationship of the sides and hypotenuses of a right triangle but also of trigonometric functions (Lamb 2017). Further, the Rhind Mathematical Papyrus provides evidence that the Egyptians had advanced knowledge of algebra and geometry as early as 1550 BCE, presenting problems that include calculating the volume of cylindrical granaries and the slope of pyramids. The Berlin Papyrus 6619, usually dated between 1800 BCE and 1649 BCE, contains a solution to a problem involving the Pythagorean theorem and evidence that the Egyptians could solve quadratic equations. Pythagoras studied with the priests of Heliopolis more than 1,000 years after these documents were created. It is possible that this Egyptian mathematical knowledge had been lost and that Pythagoras rediscovered the relationship during or after his studies in Heliopolis. However, given what we know now about Greek individuals visiting and residing in Egypt, it seems more likely that he was introduced to the knowledge there. As with mathematics, there are specific philosophical ideas that can be traced back to Egypt. This is particularly the case within metaphysics, the branch of philosophy that studies reality, being, causation, and related abstract concepts and principles.

Akhenaten's Metaphysics

In the mid-14th century BCE, Akhenaten became pharaoh in Egypt. Partly in an attempt to undercut the growing power of the priests, Akhenaten abolished all other gods and established Aten, the sun god, as the one true god. Akhenaten held that solar energy was the element out of which all other elements evolved or emanated (Flegel 2018). In proposing this idea, Akhenaten established an unseen divinity responsible for causation. Aten became the one true substance that created the observable world. One hymn reads, "You

create millions of forms from yourself, the one, / cities and towns / fields, paths and river" (Assmann [1995] 2009, 154). Although the Egyptian elite quickly reestablished the temples and the practices of the full pantheon of gods after Akhenaten's death, theological thought incorporated this idea of an all-powerful invisible first cause. This idea evolved, with the phrase "one and the millions" coming to signify the sun god as the soul and the world as its body (Assmann 2004, 189). As you will see later in this chapter, this same concept—a single, invisible, unchanging substance expressing itself through forms to give rise to the material world—is the key principle in Plato's metaphysics.

The Egyptian Origins Controversy

Scholars have long puzzled over to what extent the origins of classical thought can be said to lie in Egypt. In recent years, a heated debate has erupted over this question. In the three-volume text *Black Athena: The Afroasiatic Roots of Classical Civilization*, Martin Bernal, a contemporary American professor specializing in modern Chinese political history, argued that the ancient Egyptians and Phoenicians played a foundational role in the formation of Greek civilization and philosophy. He further claimed that an "ancient model" recognizing the African and Middle Eastern origins of Greece was widely accepted until the 19th century, when it was replaced by a racist "Aryan model" proposing Indo-European origins instead. Mary Lefkowitz, a contemporary professor of classical studies, has famously critiqued Bernal's work. Lefkowitz's position is that though it is important to acknowledge the debt the Greeks owe to Egyptian thought, Greek philosophy was not wholly derived from Egypt, nor did Western civilization arise from Africa. A bitter academic war of words has ensued, with Lefkowitz and other prominent scholars noting significant errors in Bernal's scholarship. Lefkowitz authored *Not Out of Africa: How Afrocentrism Became an Excuse to Teach Myth as History* in 1997. Bernal responded with *Black Athena Writes Back* in 2001. This exchange reflects a much broader phenomenon in which academics spar over the accuracy of historical narratives and the interpretation of philosophical ideas, often presenting the issues as ethical questions. By thinking critically about these disagreements, we gain deeper insight not only into the topic of study but also into philosophical and political discourse today.

WRITE LIKE A PHILOSOPHER

Read the summary of these two articles: (1) Mary Lefkowitz's "Egyptian Philosophy: Influence on Ancient Greek Thought (https://openstax.org/r/egyptianphilosophy)" and (2) Simphiwe Sesanti's "Teaching Ancient Egyptian Philosophy (Ethics) and History: Fulfilling a Quest for a Decolonised and Afrocentric Education (https://openstax.org/r/teachingancientegyptian)". Identify two arguments from each article, and identify two to three sources that could provide evidence to substantiate or refute each argument.

Ancient Greek Philosophy

Classical philosophy emerged in ancient Greece, following a procession from what are known as the Presocratics; to the three great philosophers, Socrates (470–399 BCE), Plato (c. 428–347 BCE), and Aristotle (384–322 BCE); and then to later schools of thought, including the Epicureans and Stoics. As is the case with all ancient societies, knowledge of these thinkers is limited by the documentation that has survived. Socrates, for example, wrote down nothing. Rather, Plato wrote dialogues featuring his mentor Socrates engaged in philosophical debate with various individuals in Athens, some of them his fellow citizens and other prominent visitors to the city. The material that has survived from ancient Greece has fueled philosophical discourse for two millennia.

The Presocratics

The term *Presocratics* is somewhat problematic. At least a few of the thinkers considered part of this school were contemporaries of Socrates and are mentioned in Plato's dialogues. Foremost among these are the Sophists, traveling teachers of rhetoric who serve as foils for Plato's philosophers. Plato sought to distinguish

philosophers, seekers of truth, from Sophists, whom he regarded as seeking wealth and fame and peddling in fallacious arguments. Indeed, one of the most prominent Sophists, Protagoras, is a main character in the dialogue that bears his name.

Researching the Presocratics is difficult because so little of their work has survived. What we have is fragmentary and often based on the testimony of later philosophers. Still, based on the work that is available, we can characterize the Presocratics as interested in questions of metaphysics and natural philosophy, with many of them proposing that nature consisted of one or more basic substances.

The fragments of the works of these early philosophers that have come down to us focus on metaphysical questions. One of the central debates among the Presocratics is between **monism** and **plurism**. Those who think nature consisted of a single substance are called monists, in contrast to pluralists, who see it as consisting of multiple substances. For example, the monist Thales of Miletus thought that the basic element that comprised everything was water, while Empedocles the pluralist sought to show that there were four basic elements (earth, air, fire, and water) that were resolved and dissolved by the competing forces of love and strife.

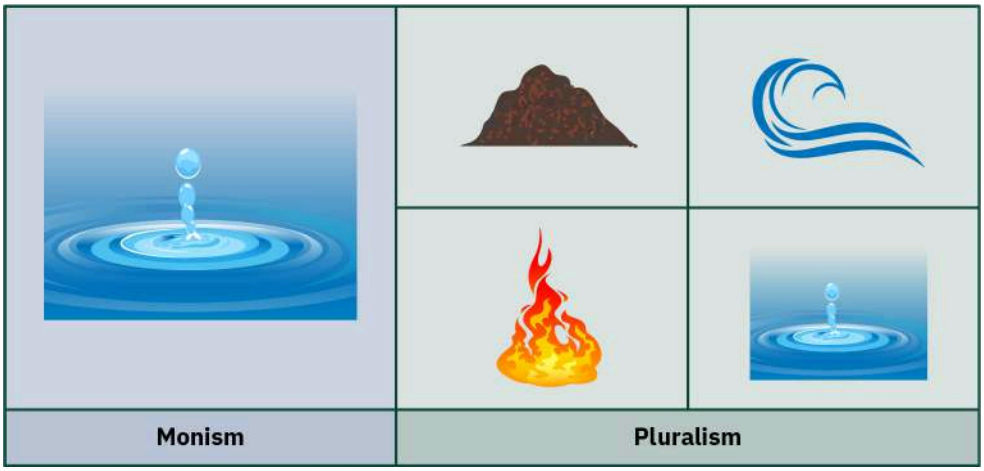

FIGURE 4.3 A central debate among PreSocratic Greek philosophers concerned whether nature consisted of a single substance—an approach taken by the monists—or was made up of a number of substances—a position taken by the pluralists. One prominent monist, Thales of Miletus, posited that all of nature was made of water. Empedocles, a pluralist, argued instead that the four elements of earth, air, fire, and water formed the basis of the natural world. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

Prominent Monists

Presocratic philosophers who sought to present a unified conception of nature held that nature ultimately consists of a single substance. This proposition can be interpreted in various ways. The claim proposed by Thales of Miletus (620–546 BCE) that the basic substance of the universe was water is somewhat ambiguous. It might mean that everything is ultimately made of water, or it might mean that water is the origin of all things. Thales and two of his students, Anaximander and Anaximenes, made up the monist Milesian school. Anaximander thought that water was too specific to be the basis for everything that exists. Instead, he thought the basic stuff of the universe was the *apeiron*, the indefinite or boundless. Anaximenes held that air was the basic substance of the universe.

Parmenides, one of the most influential Presocratic monists, went so far as to deny the reality of change. He presented his metaphysical ideas in a poem that portrays himself being taken on a chariot to visit a goddess who claims she will reveal the truths of the universe to him. The poem has two parts, “the Way of the Truth”, which explains that what exists is unified, complete, and unchanging, and “the Way of Opinion”, which argues that the perception of change in the physical world is mistaken. Our senses mislead us. Although it might seem to us that Parmenides’s claim that change is not real is absurd, he and his student Zeno advanced strong arguments. Parmenides was the first person to propose that the light from the moon came from the sun and to

explain the moon's phases. In this way, he showed that although we see the moon as a crescent, a semicircle, or a complete circle, the moon itself does not change (Graham 2013). The perception that the moon is changing is an illusion.

Zeno proposed paradoxes, known as **Zeno's paradoxes**, that demonstrate that what we think of as plurality and motion are simply not possible. Say, for example, that you wish to walk from the library to the park. To get there, you first must walk halfway there. To finish your trip, you must walk half of the remaining distance (one quarter). To travel that final quarter of the distance, you must first walk half of that (an eighth of the total distance). This process can continue forever—creating an infinite number of discrete distances that you must travel. It is therefore impossible that you arrive at the park. A more common way to present this paradox today is as a mathematical asymptote or limit (Figure 4.4). From this point of view, you can never reach point *a* from point *b* because no matter where you are along the path, there will always be a distance between wherever you are and where you want to be.

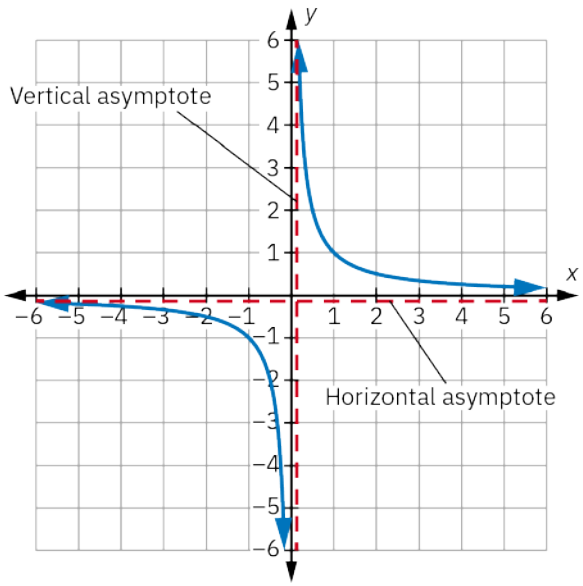

FIGURE 4.4 For the function $y = 1/x$, neither x nor y can have a value of zero because y approaches infinity as x approaches zero and x approaches infinity as y approaches zero. Other functions show these same characteristics, which are called asymptotes or limits. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

VIDEO

The Paradoxes of Zeno

Click to view content (https://openstax.org/books/introduction-philosophy/pages/4-2-classical-philosophy)

Prominent Pluralists

Parmenides and Heraclitus (525–475 BCE) held diametrically opposed views concerning the nature of the universe. Where Parmenides saw unity, Heraclitus saw diversity. Heraclitus held that nothing remains the same and that all is in flux. One of his most well-known sayings illustrates this well: "[It is not possible to step twice into the same river]. . . . It scatters and again comes together, and approaches and recedes" (quoted in Curd 2011, 45).

Anaxagoras (500–428 BCE) and Empedocles (494–434 BCE) were substance pluralists who believed that the universe consisted of more than one basic kind of "stuff." Anaxagoras believed that it is mind, or *nous*, that controls the universe by mixing and unmixing things into a variety of different combinations. Empedocles held that there were four basic substances (the four elements of air, earth, fire, and water) that were combined and recombined by the opposing forces of love and strife.

Finally, there are the schools of the atomists, who held the view that the basic substance of the universe was tiny, indivisible atoms. For the atomists, all was either atoms or void. Everything we experience is a result of atoms combining with one another.

CONNECTIONS

The chapter on metaphysics covers monism and pluralism across cultures.

Presocratic Theology

The Presocratic philosopher Pythagoras (570–490 BCE) and his followers, known as the Pythagoreans, comprised a rational yet mystical sect of learned men. The Pythagoreans had a reputation for learning and were legendary for their knowledge of mathematics, music, and astronomy as well as for their dietary practices and other customs (Curd 2011). Like Socrates, Pythagoras wrote nothing, so scholars continue to debate which ideas originated with Pythagoras and which were devised by his disciples.

Among the Pythagoreans' key beliefs was the idea that the solution to the mysteries of the universe was numerical and that these numerical mysteries could be revealed through music. A reminder of their mathematical legacy can be found in the Pythagorean theorem, which students continue to learn in school. Pythagoreans also believed in the transmigration of souls, an idea that Plato would adopt. According to this doctrine, the soul outlives the body, and individuals are reborn after death in another human body or even in the body of a nonhuman animal.

Another important Presocratic philosopher who produced novel theological ideas is Xenophanes (c. 570–478 BCE). Xenophanes, who was fascinated by religion, rejected the traditional accounts of the Olympian gods. He sought a rational basis of religion and was among the first to claim that the gods are actually projections of the human mind. He argued that the Greeks anthropomorphized divinity, and like many later theologians, he held that there is a God whose nature we cannot grasp.

Socrates and Plato

As Socrates never wrote anything, he is remembered today because thinkers like Plato featured him in their writings. Plato deliberately dramatized the life of his teacher Socrates. One of the key questions of Plato's scholarship is exactly how many liberties he took in depicting the life of his teacher. Scholars generally agree that the dialogues that Plato wrote early in his career are more faithful to the life of Socrates than later ones. His writings are usually divided into three periods: early, middle, and late.

The early dialogues feature a skeptical Socrates who refuses to advance any doctrines of his own. Instead, he questions his interlocutors until they despair of finding the truth at all. These early dialogues tend to be somewhat short with a simpler composition. One of the dialogues features a young man named Meno who is the pupil of a prominent Sophist. The dialogue focuses on the nature of virtue and whether virtue can be taught. At one point in the dialogue, Meno famously compares Socrates to a torpedofish, a fish similar to a stingray that paralyzes its prey. Socrates does this to his dialogue partners: they begin the discussion believing that they know something and over the course of the dialogue begin to question whether they know anything at all.

CONNECTIONS

See the introduction to philosophy chapter for more on Socrates as the paradigmatic philosopher.

Gradually, Plato has Socrates give voice to more positive doctrines. These include what comes to be known as the **theory of the forms**, a metaphysical doctrine that holds that every particular thing that exists participates in an immaterial form or essence that gives this thing its identity. The invisible realm of the forms differs fundamentally from the changing realm we experience in this world. The invisible realm is eternal,

unchanging, and perfect. The material things themselves change, but the immaterial forms remain the same. Consider, for example, the form of a rectangle: four adjacent straight sides that meet at 90-degree angles. You can draw a rectangle, but it is an imperfect representation. The desk or table you are sitting at might be rectangular, but are its edges perfectly straight? How perfect was the instrument that cut the sides? If you nick the edge of a table, then it changes and becomes less like the form of a rectangle. With the doctrine of forms, Plato may be said to combine the metaphysics of Parmenides with that of Heraclitus into a metaphysical dualism.

The philosopher's task is to access the immaterial realm of the forms and try to convince others of its truth. Plato further believed that if we understand the true nature of virtues like wisdom, justice, and courage, we cannot avoid acting in accordance with them. Hence, rulers of states should be philosopher-kings who have the clearest understanding of forms. Yet philosopher-kings never have perfect knowledge because our understanding is based on a material realm that is always changing. True knowledge is only possible in the abstract realms, such as math and ethics.

In the dialogues, Socrates claims that he was divinely inspired to question prominent citizens of Athens to determine whether their claims to know could be verified. These citizens grow annoyed with Socrates after some years of this treatment, eventually bringing charges against him for corrupting the youth and making the weaker argument appear the stronger. The proceedings of the resulting trial were immortalized in Plato's *Apologia*, where Socrates presents his defense of his life's work as a philosopher. The dialogue's name derives from the Greek *apologia*, meaning "defense"—Socrates never apologizes for anything! He is found guilty and sentenced to death. Socrates becomes a martyr to philosophy, put to death by the democratic government of Athens.

CONNECTIONS

This text examines Plato's ideas in greater depth in the chapters on metaphysics, epistemology, value theory, and political philosophy.

Aristotle

During the Middle Ages, people referred to Plato's most famous pupil Aristotle as simply "the Philosopher." This nickname is a testament to his enduring fame, as well as to the fact that he was driven by philosophical curiosity to try to understand everything under the sun. The first sentence of his famous work *Metaphysics* states, "Philosophy begins in wonder." He exemplified this claim in his writing. His works ranged widely across all the main areas of philosophy, including logic, metaphysics, and ethics. In addition, he investigated **natural philosophy**, the fields of study that eventually gave rise to science. Aristotle also researched topics that would today be classified as biology and physics. Stylistically, his work was very different from that of his teacher. While Plato's work was literary and even dramatic, Aristotle's writings are presented as lecture.

CONNECTIONS

Explore Aristotle's ideas in greater depth in the chapters on metaphysics and epistemology.

Plato and his successors were prone to mysticism. It was easy to translate the philosophical theory of the forms into a mystical doctrine in which the forms were known by the mind of God. Aristotle resisted this trend. At the center of Aristotle's work was his doctrine of the four causes. He believed that the nature of any single thing could be understood by answering four basic questions: "What's it made of?" (material cause), "What shape does it have?" (formal cause), "What agent gave it this form?" (efficient cause), and, finally, "What is its end goal?" (final cause). Not only can we explain the nature of anything by answering these four basic questions, we can also understand the nature of the universe. Aristotle's universe is a closed system that is comprehensible to humanity because it is composed of these four causes. Each cause leads to another, until we get to the first

cause or prime mover at the head of it all. Somewhat obscurely, Aristotle claims that this first cause is "thought thinking itself."

In addition to the doctrine of the four causes, it is important to understand Aristotle's account of the soul. Unlike Plato, who held that the soul is an eternal substance that is reborn in various bodies, Aristotle has a functional conception of the soul. He defined the soul based upon what the soul does. In Aristotle's understanding, all living things have souls. Plants have a vegetative soul that promotes growth and the exchange of nutrients. The animal soul, in addition to taking in nutrients and growing, experiences the world, desires things, and can move of its own volition. Added to these various functions in humans is the ability to reason.

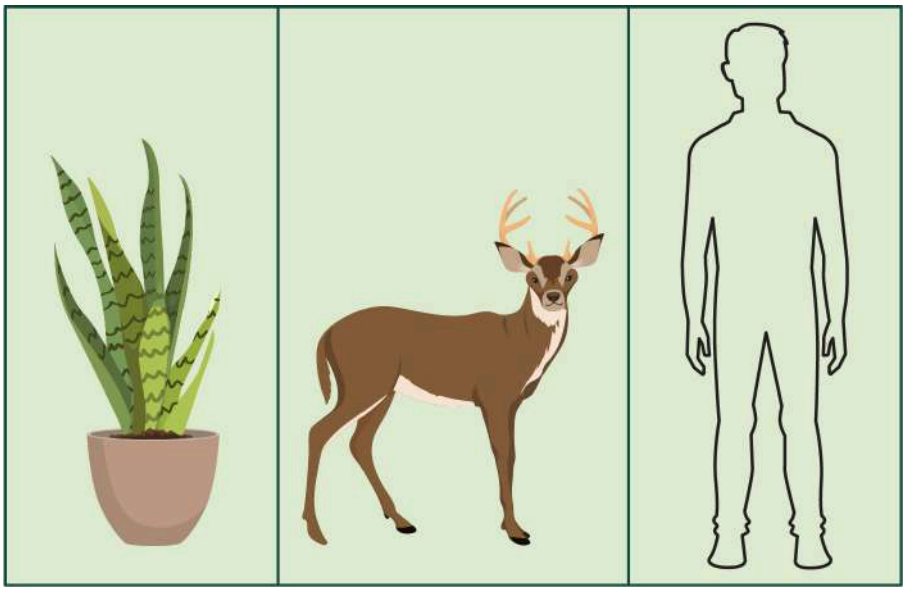

FIGURE 4.5 Aristotle believed that all living beings had souls, but that the souls of various types of creatures differed in their abilities. The soul of a plant promotes growth and the exchange of nutrients. The animal soul allows for everything a plant can do, with the additional ability to desire things and move of its own volition. Only the human soul makes possible the ability to reason. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

With the four causes and the functional conception of the soul, we can begin to understand Aristotle's ethics. Aristotle systematized Plato's conception of ethics based upon his conception of the self and his four causes. Since everything that exists has a purpose, one of the basic questions for ethics is "What is the purpose of the human being?" After considering such candidates as pleasure and power, Aristotle settles on the answer "happiness" or, more accurately, "eudaimonia." Rather than a fleeting emotional state, eudaimonia is better understood as "flourishing." So the question at the heart of Aristotle's ethics is "How should humans best achieve happiness?" His basic answer is that we achieve eudaimonia by cultivating the virtues. Virtues are habits of character that help us to decide what action is preferable in a particular moment. Cultivating these virtues will helps us to lead a fulfilling life.

It is generally true to say that Plato tended to be more focused on the transcendental world of the forms while Aristotle and his followers were more focused on this worldly existence. They shared a belief that the universe was comprehensible and that reason should serve as a guide to ordering our lives.

CONNECTIONS

Aristotle's virtue ethics are explored in much greater depth in the chapters on value theory and normative moral theories.

Epicureans

In the wake of the giants of Greek philosophy—Socrates, Plato, and Aristotle—some philosophers turned away from Plato's ideal forms and toward materialism. In this, they can be seen as furthering a trend already present in the thinking of Aristotle. For Aristotle, there can be no immaterial forms—everything that exists has some material basis, though he allows an exception for his first cause, the unmoved mover.

The Epicureans steadfastly rejected the existence of immaterial forms, unmoved movers, and immaterial souls. The Epicureans, like Aristotle, embraced **empiricism**, which means that they believed that all knowledge was derived from sense experience. This view was the basis of the revival of empiricism in 18th-century British thought and scientific practice. They espoused an ethical naturalism that held that in order to live a good life we must properly understand human nature. The ultimate goal of life is to pursue pleasure. Despite their disagreements with Plato and, to a lesser extent, Aristotle, the Epicureans agreed with their predecessors that human existence ought to be guided by reason.

The two principal Greek Epicureans were Epicurus himself (341–270 BCE) and his Roman disciple Lucretius (c. 99–55 BCE). Although Epicurus's views are characterized as hedonistic, this does not mean that he believed that we ought to be indiscriminate pleasure-seekers. Instead, he proposed that people could achieve fulfilling lives if they were self-sufficient and lived free from pain and fear. Of course, complete self-sufficiency is just as impossible as a life utterly free from pain and fear, but Epicurus believed that we should strive to minimize our dependence upon others while limiting the pain in our lives. Epicureans thought that the best way to do this was to retire from society into philosophical communities far from the hustle and bustle of the crowd. Epicurus and Lucretius saw the fear of death as our most debilitating fear, and they argued that we must overcome this fear if we were going to live happy lives.

Lucretius developed Epicurean philosophy in a poem called *De Rerum Natura* (On the nature of things). This poem discusses ethical ideas, but physics provides its focus. Lucretius adopts a material atomism that holds that things are composed of atoms in motion. Rejecting religious explanations, he argues that the universe is governed by chance and exemplified by these atoms in motion. Although the Epicurean philosophers were critically responding to the work of Plato and Aristotle, it should be evident that they also have antecedents in Presocratic thought. We can see this in their atomism and their religious skepticism, which hearkens back to Xenophanes.

Roman Philosophy

Just as Hellenistic philosophy developed in the long shadows cast by Plato and Aristotle, Roman philosophy also used these two giants of Greek philosophy as reference points. While Roman philosophical traditions were built upon their Greek forebearers, they developed in a Roman cultural context. Rome began as a republic before becoming an empire, and Roman philosophy was affected by this political transformation. Still, Roman philosophical schools were thoroughly grounded in Greek philosophy, with many Roman philosophers even choosing to write in Greek rather than Latin, since Greek was viewed as the language of scholarship.

Rhetoric and Persuasion in Politics

Recall that Plato defined philosophy in opposition to sophistry. Whereas the philosopher sought the truth in a dispassionate way using reason as a guide, the Sophist addressing a crowd was indifferent to truth, seeking power and influence by appealing to the audience's emotions. This harsh critique of rhetoric, which can be defined as the art of spoken persuasion, softened with subsequent philosophers. Indeed, Aristotle wrote a text called *Rhetoric* in which he sought to analyze rhetoric as the counterpart to philosophy. The tension never disappears entirely, however, and the relationship between philosophy and rhetoric and, more generally, the relationship between philosophy and politics remains a perennial question.

Despite the fact that his ideal statesman was a philosopher, Plato generally sought to keep philosophy distinct from the grubbiness of real politics and was concerned about the messiness of democratic politics in

particular. In the Roman political context, this ambivalence becomes less apparent. Examples of philosophers who were also statesmen include Cicero (106–43 BCE) and Marcus Aurelius (121–180 CE). Marcus Aurelius even served as emperor of Rome from 161 to 180 CE. However, as the Roman Republic gave way to the Roman Empire, philosophers shifted inward by focusing on things that were in their control.

Stoicism

Aristotle held that eudaimonia is worthwhile at least in part because it helps us to better deal with various inevitable misfortunes. The Roman Stoics further developed this idea, proposing four core virtues: courage, justice, temperance, and wisdom. The Stoics were wary of the type of false judgments that might arise from the emotions. They were also uneasy with the loss of control associated with strong emotions, observing that some people can become enslaved to their passions. The Stoics prized rational self-control above everything else. This constant work at maintaining inner freedom epitomizes the Stoic conception of philosophy (Hadot 2002).

WRITE LIKE A PHILOSOPHER

Marcus Aurelius was both a Roman emperor and a Stoic philosopher. His writings, which he meant only for himself, were eventually published in *Meditations*, a work that serves as one of the major sources of Stoic thought. Although much of Marcus Aurelius's reign fell under a period known as the Pax Romana, when the empire enjoyed relative stability and peace, the end of his reign occurred during a period of major wars and a plague. This famous passage, taken from Book VII, Section 47 of the *Meditations*, provides advice about how to deal with pain or grief called by an external source. Translate it into your own language. Then explain why you agree or disagree with Marcus Aurelius's conclusions.

> If you are grieved about anything external, 'tis not the thing itself that afflicts you, but your judgment about it; and it is in your power to correct this judgment and get quit of it. If you are grieved at anything in your own disposition; who hinders you to correct your maxims of life? If you are grieved, because you have not accomplished some sound and virtuous design; set about it effectually, rather than be grieving that it is undone. "But some superior force withstands." Then you have no cause of sorrow; for, the fault of the omission lies not in you. "But, life is not worth retaining, if this be not accomplished." Quit life, then, with the same serenity, as if you had accomplished it; and with good-will, even toward those who withstand you.

The Stoics were systematic philosophers whose writings focused on ethics, physics, logic, rhetoric, and grammar. For the Stoics, the world consists of material bodies in motion, causally affecting each other. Real entities are those capable of causally affecting one another. The Stoic god is a material entity who exists in nature and meticulously manages it, the material first cause of the universe, Aristotle's unmoved mover incarnated as a material entity. In other words, God is an animating reason that gives life to the universe. Unlike the Christian God who transcends the universe, the Stoic god is found within it, a force immanent to the universe who combines and recombines the four elements into things we can experience because they act upon us and we upon them. Stoicism developed at a time when politics in the Roman world was increasingly seen as something outside individuals' power to change. So Stoics let politics go. While turning away from politics may indeed promote a tranquil life, it also promotes passivity. Thus, Stoicism reached a conclusion similar to that reached by Daoism, as explored in the chapter on early philosophy.

PODCAST

Stoic ideas are enjoying something of a revival, as evidenced by the popularity of Ran Holliday's *Daily Stoic (https://openstax.org/r/dailystoicpodcast)* podcasts.

Academic Skepticism

Academic Skepticism is another aspect of Roman philosophy that developed out of a tendency found in earlier

Greek thought. Recall that Socrates questioned whether we could ever know anything at all. The Academic Skeptics opposed the Stoic claims that sense impressions could yield true knowledge, holding instead that knowledge is impossible. Instead of knowledge, Academic Skeptics articulated the idea of degrees of belief. Things are more or less believable based on various criteria, and this degree of believability is the basis for judgment and action. Disciples of the Greek philosopher Pyrrho (c. 360–270 BCE) held that we had to suspend judgment when it comes to knowledge claims, going so far as to say that we cannot even reliably claim that we cannot know anything. Rather than suspending all judgment, Academic Skeptics sought to demonstrate that knowledge claims lead us to paradoxical conclusions and that one can argue cogently both for and against the same proposition.

The philosopher, orator, and statesman Cicero (106–43 BCE) was the most prominent of the Academic Skeptics. His works provide much of the information we have about the school. He had a decisive influence on Latin style and grammar and was decisive in the introduction of Hellenistic philosophy into Rome. The rediscovery of his work in the 15th century ushered in the European Renaissance.

FIGURE 4.6 This Flemish illuminated manuscript, dated to approximately 1470, is a French translation of Cicero's philosophical treatise *De amicitia*. The rediscovery of Cicero's work in the 15th century has been connected to the European Renaissance. (credit: "Cicero's *De amicitia* (French Translation), Presentation of the Book to Its Patron, Walters Manuscript W.312, Fol. 1r" by Walters Art Museum Illuminated Manuscripts/Flickr, CC0)

Neoplatonism

Plotinus (c. 204–270) led a revival of Plato's thought in the late Roman Empire that lasted until Emperor Justinian closed Plato's Academy in 529. Plotinus believed that he was simply an expositor of Plato's work, but the philosophy he developed, known as Neoplatonism, expanded on Plato's idea. Neoplatonism arose during a time of cultural ferment in the Roman Empire, incorporating ideas borrowed from sources such as Judaism and early Christianity. The key metaphysical problem in Neoplatonism was accounting for how a perfect God could create a universe that was manifestly imperfect. Plotinus solved this problem by applying ideas similar to Plato's theory of forms. The perfect, unchanging realm is the one inhabited by God, but creation inhabits the changing realm, which only mirrors forms imperfectly. Plotinus claims that creation emanates from God, but

the further one is from this source the less perfect things become.

4.3 Jewish, Christian, and Islamic Philosophy

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Describe what constitutes Jewish, Christian, and Islamic philosophy.
- Outline the historical path of classical ideas up until the early modern era.
- Identify the ideas of key philosophers in Africa and Europe.

Greek and Roman imperialism in the Middle East and North Africa brought Jews—and later, Christians—into the intellectual sphere of Hellenism. Early on, Jewish and Christian scholars incorporated ideas of classical Greek and Roman philosophy into their theological studies. As Arab conquerors and traders expanded into the Middle East and Africa, the Muslim world also came into contact with classical philosophy and the natural sciences, adopting and advancing many key ideas. At the same time, religious centers of learning were developing their own philosophies of metaphysics, epistemology, and ethics. Within these institutions, people engaged in deep and often contentious debate about the nature of humans, of the world, and—more generally—of being. There were also active epistemological debates attempting to determine the boundaries of what could and could not be known. These thinkers developed ethical systems that adherents put into practice. Yet a tension runs through most of these works, as philosophers tried to balance theological revelation with freedom of intellectual exploration.

Defining Jewish, Christian, and Islamic Philosophy

The previous chapter on the early history of philosophy examined how and whether organized philosophies differ from Indigenous belief systems and religions. It was mentioned that the emergence of a philosophy has been described as a transition from a system of myths (*mythos*) to a rational system of ideas (*logos*). If this distinction appears blurry at times, how much more difficult might it be to untangle theology from philosophy—or to determine what constitutes Jewish, Christian, or Islamic philosophy?

In a provocative article, 20th-century rabbi and scholar Eliezer Berkovits (1908–1992) tackles the question of what is Jewish philosophy and who should be considered a Jewish philosopher (Berkovits 1961). Is a Jewish philosopher anyone who is both a Jew and a philosopher? Consider, for example, the Sephardic Jew Baruch Spinoza, often cast as a Dutch philosopher. Inspired by the French philosopher René Descartes, Spinoza developed a metaphysical model of God, humans, and the world that challenged religious orthodoxy and established a moral philosophy that functions independently of scripture, laying the foundation for a rational, democratic society. Excommunicated by his own community, Spinoza emerged as one of the most important thinkers of the early modern era (Nadler 2020). Should Spinoza be considered a Jewish philosopher? Or, even more on point, should Spinoza's work be considered Jewish philosophy?

Berkovits did not think so. He argued that unlike Descartes, who created a new philosophy—a modern epistemology that gave rise to advancements in politics and science—Jewish philosophers have not been involved in the project of creating something from scratch. They did not have a blank slate to start from. A Jewish philosopher—and the same could be said for a Christian or Muslim philosopher—always works with a partner, i.e., the events and facts central to the religion. For example, all three of these monotheistic religions have foundational texts that claim that God created the world. This is a metaphysical starting point for Jewish, Christian, and Muslim philosophers—and it runs counter to Aristotle's supposition that the universe has always existed, emanating from the unmoved mover.

Whereas each of the three monotheistic religions produced rich bodies of thought that address the nature of reality (metaphysics) and ethics, this section examines those Jewish, Christian, and Islamic thinkers who carried the mantle of the Greek philosophical tradition into the early modern age, often in partnership with their own traditions.

Early Jewish Philosophy

After Alexander the Great, a student of Aristotle, conquered Persia in 332 BCE, his generals divided the empire's vast lands in Asia, the Levant, northern Africa, and Europe into three states and spread Greek culture and ideas into these territories, Hellenizing these areas. As a result, wealthier Jews gained exposure to the Greek classics.

Philo of Alexandria

Born into a wealthy, Hellenized family in the Roman province of Egypt, Philo of Alexandria (20 BCE–50 CE) published both his philosophical treatises and his personal accounts of his political experiences. Philo served as ambassador to Emperor Gaius Caligula on behalf of the one million Jews dwelling in Egypt. His work represents the first systematic attempt to make use of ideas developed by Plato and other Greek philosophers to explain and justify Jewish scripture. In Plato's metaphysical vision, true reality is unchanging and eternal, with the world we experience only a temporary reflection of these eternal forms. But, Philo asked, how can the creation of a physical world be explained? How can eternal forms express themselves in a physical world? In reconciling Jewish and Greek doctrines of creation, Philo identifies Plato's forms as **logos**, or the thoughts of God. Separate from the eternal divinity—Aristotle's unmoved mover—logos serves as the mediator between God and the physical world. When in the Book of Genesis, God says, "Let there be light," this is the logos of the unmoved mover. Philo's fusion of Greek and Jewish philosophy lays the foundation for early Christian doctrine. In fact, his scholarship was preserved by the Christian community and only rediscovered by the Jewish community in the 16th century.

FIGURE 4.7 Philo identified Plato's forms as logos, or the thoughts of God. In this view, when God says, "Let there be light," this is the logos of the unmoved mover. This interpretation is typical of Philo's blending of Greek and Jewish philosophy. (credit: "Let There Be Light, and There Was Light" by rippchenmitkraut66/Flickr, CC BY 2.0)

Early Jewish Ethics and Metaphysics

At the time of Philo, the Jewish Bible consisted of the five books of Moses, known as the Pentateuch, the Prophets, and the later books that make up the Tanakh. Much of Jewish theological, legal, and philosophical thought was passed down orally. Following the Roman Empire's destruction of Jerusalem and the Kingdom of Judah in 70 CE, the Sanhedrin, a semiautonomous Jewish legal and judicial body that had been forcibly relocated to northern Israel, began transcribing the oral traditions so as not to lose them. These writings would later become the Talmud. Among these writings is the text *Ethics of Our Fathers*, which provides a moral guide to everyday life. Later, Jewish scholars also began to explore metaphysics, culminating in the Kabbalah, which examines the relationship between God—defined as the infinite, unchanging, and eternal—and the finite world

we experience. Eventually, the brutal repression of Jews who remained in their homeland led to the collapse of the Hellenized Jewish communities throughout the Roman Empire. As a result, the continuation of Philo's work fell to a subgroup of Jews whose new religion, Christianity, would be adopted by Rome.

Early Christian Philosophy

Late antiquity witnessed the gradual demise of the Roman Empire in the West, a political development accompanied by great social turmoil and uncertainty. The Catholic Church gradually filled this political and cultural void, as it sought to make itself the legitimate heir of Roman power. Philosophy reflects this transformation in Western European society, with the uncertainty and turmoil of the period reflected in the work of philosophers of late antiquity such as Augustine and Boethius. The triumph of Christianity can be seen in the grand edifice of scholasticism that developed later, reflected in the writings of Thomas Aquinas.

Augustine

Augustine (354–430 CE) was one of the most influential philosophers and theologians of late antiquity. In his *Confessions*, he used his own life and the story of his initially reluctant turn to Christianity as an allegory for understanding God's universe and humanity's place within it. His narrative begins with a discussion of his struggles with faith, particularly with sexual desire. In later books, he turned to considerations of history and the nature of time. Augustine famously posits a theory of time that holds that we experience the temporal present in three different ways: the present anticipates the future and bleeds into the recent past.

As Bishop of Hippo, Augustine sought to defend theological orthodoxy against various heresies. He wrote against the Pelagian heresy, which held that humans could achieve salvation themselves without divine grace, and the Manichean heresy, which held that the universe was a battlefield between the forces of good and evil that are equal in power. In contrast, Augustine held that all of creation was good simply by virtue of the fact that God had created it. Nothing in God's creation was evil: things that appeared evil to us were all part of God's providential plan. Even Satan's rebellion was part of God's plan.

Augustine's ideas raise interesting issues with respect to free will. How can we reconcile individual human freedom in a world where an all-powerful God knows all? In opposition to the strict determinism of the Manicheans, Augustine sought to make room for some amount of human freedom. Despite the original sin of Adam and Eve discussed in the Christian and Jewish Bible and the fall from grace that this entails, Augustine held that it is within our power to choose the good. Augustine sees this conflict as one between two rival wills, one that wills the good and one that desires sinfulness. Only divine grace can ultimately resolve this, though it is within our power to choose whether to sin.

Not only did Augustine articulate Christian doctrine that shaped medieval European philosophy for centuries to come, but he raised questions that are still being pondered today. Queries about the nature of time and temporality as well as agency and free will remain relevant for philosophers today, as does Augustine's development of possible answers.

Boethius

Like Augustine, Boethius (c. 477–524 CE) was a philosopher who straddled the late Roman and Christian worlds. Indeed, he serves as one of the most important intermediaries between these two very different worlds. A Roman statesman and Christian theologian, Boethius is best known for his work *The Consolation of Philosophy*. Boethius was imprisoned on conspiracy charges and subsequently executed by the ruler he had served, the Ostrogothic King Theodoric the Great. Prior to his imprisonment, he had translated and written commentaries on Aristotle's work, logic, music theory, astronomy, and mathematics that were influential for medieval philosophers. However, while imprisoned, he wrote *The Consolation of Philosophy*, which takes the form of a dialogue between Boethius and philosophy personified by a beautiful woman who visits him in his cell. The text starts out with a bitter Boethius complaining of his fall from power to Lady Philosophy. She consoles him by showing Boethius that happiness remains possible for him even in his wretched state. She

argues that Boethius has not lost true happiness, or the true Platonic form of happiness, as these are not found in material possessions or high stature, but in family, virtuous actions, and wisdom. She then reminds him that true good—and so true happiness—is found in God. Extremely popular throughout the Middle Ages and Renaissance (Marenbon 2020), *The Consolation* never makes mention of Christianity. In facing death, Boethius turns to Plato. His work and influence exemplify how Catholicism incorporated classical philosophy into its worldview.

FIGURE 4.8 In this copy of a 15th-century painting, Lady Philosophy consoles Boethius as he faces death. (credit: "The Figure of Philosophy Appearing to Boethius" by Wellcome Collection/Public Domain)

THINK LIKE A PHILOSOPHER

When Lady Philosophy says that true goodness is God, she is referring to Plato's idea about the form of goodness. Read this excerpt from Plato's *The Republic*, an exchange between Socrates and Glaucon that begins with a discussion of what allows us to see beauty. Glaucon initially answers that it is sight that allows us to see beautiful things but through questioning recognizes that it is both eyes and light—or the sun—that enables us to see. This leads Socrates toward a discussion of goodness. What do Socrates—and so Plato—believe is the form of goodness? Is this form of goodness similar to how Christianity or other religions or philosophical approaches that you've encountered view God? Do you agree with Plato's conclusion? How would you define the form of goodness?

> Socrates: You know that, when we turn our eyes to things whose colors are no longer in the light of day but in the gloom of night, the eyes are dimmed and seem nearly blind, as if clear vision, were no longer in them.
>
> Glaucon: Of course.
>
> Socrates: Yet whenever one turns them on things illuminated by the sun, they see clearly, and vision appears in those very same eyes.
>
> Glaucon: Indeed.

> Socrates: Well, understand the soul in the same way: When it focuses on something illuminated by truth and what is, it understands, knows, and apparently possesses understanding, but when it focuses on what is mixed with obscurity, on what comes to be and passes away, it opines and is dimmed, changes its opinions this way and that, and seems bereft of understanding.
>
> Glaucon: It does seem that way.
>
> Socrates: *So that what gives truth to the things known and the power to know to the knower is the form of the good.* And though it is the cause of knowledge and truth, it is also an object of knowledge. *Both knowledge and truth are beautiful things, but the good is other and more beautiful than they.* In the visible realm, light and sight are rightly considered sunlike, but it is wrong to think that they are the sun, so here it is right to think of knowledge and truth as good like but wrong to think that either of them is the good—for the good is yet more prized.

Anselm

Anselm (1033–1109) served as Bishop of Canterbury and sought to extend the reach of Christianity into the British Isles. Philosophically, he is best known for his formulation of what has come to be known as a proof for the existence of God, which he elaborated in his written meditation the *Proslogion*. Anselm is an early proponent of—and some say the founder of—the philosophical school of Scholasticism, which anticipates the writings of prominent Scholastics such as Thomas Aquinas. Like later Scholastics, Anselm believed that a rational system of thought reflects the rationality inherent in the universe and that reason and logic can lead people to God.

Islamic Philosophy

The rise of Islam is linked to the decline of the Roman and Persian Empires. More specifically, the ruinous wars that the two once-great powers fought left both weak. In 622 CE, the Prophet Muhammed led his followers out of Mecca to Medina, which signaled the birth of Islam as a political power (Adamson 2016, 20). In the early years of Islam, theologians prohibited the teaching of Aristotle and other Greek philosophers on the grounds that they were contrary to the true Muslim faith. This restriction began to give way in the eighth century CE, which led to the flourishing of philosophy in the Islamic world.

As the Roman Empire declined, the Muslim world safeguarded ancient philosophical Greek and Latin texts through major centers of learning in Alexandria, Baghdad, and Cordova. Islamic philosophers published major works in metaphysics, epistemology, and natural philosophy. Key Islamic scholars who carried classical philosophy forward include Ibn Sina (whose Latin name became Avicenna), Ibn Rushd (whose name was Latinized to Averroes), and Al-Gazali. Of these three, Ibn Sina is the linchpin of Muslim philosophy. His genius inaugurates the shift from an early period focused on the consolidation of Greek learning to a later period of philosophical and scientific innovation (Adamson 2016).

Ibn Sina (Avicenna)

Abū-ʿAlī al-Ḥusayn ibn-ʿAbdallāh Ibn-Sīnā (c. 970–1037 CE) was a Persian polymath who published works in philosophy, medicine, astronomy, alchemy, geography, mathematics, Islamic theology, and even poetry. Because of the vast scope of Ibn Sina's intellectual endeavors, he is considered the linchpin between Islamic philosophy's formative phase and its more creative phase during the Golden Age of Islam, which extends from roughly the 8th through the 13th centuries. During this period, Islamic culture and learning flourished, and the Muslim-ruled lands spread from the Middle East, through Northern Africa, and into the Iberian Peninsula. Taking his cue from Aristotle, Ibn Sina sought to present a complete philosophy that would address both theoretical and practical philosophy. Some have estimated that Ibn Sina published as many as 450 works, though others place the figure at under 100 (Namazi 2001).

Ibn Sina's work was highly influential within both the Muslim and the Christian world. His proof of the

existence of God became predominant. Called the Proof of the Truthful, the argument proposed that existence requires that there be a necessary entity—an entity that cannot *not* exist. Elements of the material world—animals, plants, rivers, mountains—are contingent—that is, they come and go. They may have existed in the past but do not exist now, or they may exist now but will not exist in the future. Therefore, they can *not exist*. Therefore, there must be a nonmaterial entity that causes this material world to come into existence.

Much like Aristotle, Ibn Sina believed that the rational order of the universe was comprehensible by our human minds, and his well-ordered and complete philosophical project demonstrated this (Gutas 2016). Ibn Sina's most influential book is the *Canon*, a five-volume medical encyclopedia that—translated into Latin and Hebrew—became the textbook for the study of medicine in European universities from the 12th to the 17th century (Amr and Tbakhi 2007). Ibn Sina's epistemology—and in particular, his development of an empiricism that advances far beyond the Epicureans and is, in fact, comparable to that of John Locke—has received less attention.

Ibn Sina, similar to Locke, proposed that humans are born with a rational soul that is a blank slate. The child possesses the five external senses associated with the animal soul (sight, smell, sound, taste, and touch) and two internal senses of the human rational soul, memory and imagination. The child gathers and stores information from the senses and is able to abstract intelligible concepts about the world from this sensual data and about the human soul (rationality) through reflection (which Locke later calls experience). So, a child in a high chair might drop food and observe that it falls to the floor, based on experience, but a child through reflection also observes a causal relationship. For Ibn Sina, gravity exists both in the materialist realm of the senses and in the cognitive realm of the mind or soul. Like gravity, numbers exist in both realms, the abstract concept of the number two and concrete pairs of objects, such as two shoes or two apples. He explains in *The Metaphysics of Healing*, "Number has an existence in things and an existence in the soul" (quoted in Tahiri 2016, 41).

The child's mind organizes this information—making generalizations, separating out the essential from the nonessential, and affirming or negating relationships. Through this process, the child forms definitions and propositions that reflect the logical and mathematical modes of rational thought (Gutas 2012).

Ibn Sina stated that all knowledge is a result either of forming concepts or acknowledging the truth of propositions. He distinguished different types of propositions, each of which have different sources and therefore different ways to prove or disprove the proposition. Table 4.2 lists 5 of Ibn Sina's 16 types of propositions and examples (Gutas 2012).

Type of Proposition	Example
Sense data	Grass is green.
Data of reflection	Humans think.
Tested data	Fire burns flesh.
Propositions with a middled term	Six is an even number.
Data provided by multiple reports	The US Constitution was written in 1787.

TABLE 4.2 Types of Propositions Proposed by Ibn Sina

Some types of propositions, such as sense data and data based on reflection, are knowledge based on the external or internal senses. Tested data, however, can be accepted as true only after repeated observation and attribution to a cause. For example, "fire causes burns" would be based on the observations that fire is hot, hot things burn objects (cause), and flesh is an object. The truth of data provided by multiple reports can only be

confirmed if it has been reported by so many sources that it is highly unlikely to be a falsehood.

Building on Aristotle's idea of induction conveyed in *Posterior Analytics*, Ibn Sina developed a scientific methodology of experimentation in his treatise "On Demonstration" within his *Book of Healing*. Induction involves making an inference based on observations. Ibn Sina stated that—unlike untested induction—experimentation provides the basis of certain knowledge. He used the example of the relationship between consuming the plant scammony and purging (vomiting). He noted that the observation of a positive correlation does not prove that the relationship exists but rather that the lack of observation of a negative correlation (cases in which scammony did not cause purging) provides stronger evidence. Ibn Sina's experimentation involved a search for falsification of a correlation—just like the scientific method used today, which, for example incorporates control groups (McGinnis 2003). Furthermore, Ibn Sina insisted that a causal term be inserted into the relationship that is observed. It is not scammony that causes purging but a property that scammony has that requires further investigation. So Ibn Sina's argument is (1) scammony has the power to purge, (2) scammony causes purging, (3) a power to purge causes purging. Exactly what the power to purge is remains uncertain until further investigation. In the first example above, the cause is established: (1) fire burns flesh, (2) fire is hot, (3) heat burns flesh.

As advancement of experimental knowledge challenged Islamic theology, debate emerged over how to reconcile faith and science.

FIGURE 4.9 This statue of Ibn Sina in Tehran, Iran, honors this highly influential thinker, who published works in philosophy, medicine, astronomy, alchemy, geography, mathematics, Islamic theology, and poetry. (credit: "Avicenna - Ibn Sina" by Blondinrikard Fröberg/Flickr, CC BY 2.0)

Ibn Rushd (Averroes)

Ibn Rushd (1126–1198), known as Averroes in the Latin world, was born into a family of jurists in Cordova in Andalusia, or Muslim-ruled Spain. Like Ibn Sina, his philosophy took its inspiration from Aristotle. Like Ibn Sina and Aristotle, his work ranged across a number of domains, from metaphysics and logic through medicine and natural philosophy. Much of this work took the form of commentaries on Aristotle. He thought that the Neoplatonic interpretation of Aristotle had distorted the original meaning of Aristotle's work and sought a return to Aristotle's original works in his commentaries. Ibn Rushd was pivotal to the revival of Aristotle in Europe. The tradition of commentary on Aristotle's works that developed among Islamic philosophers developed Aristotle's thought in fascinating ways and kept Aristotle scholarship alive.

Ibn Rushd saw demonstration as the key to logic and the condition for philosophical certainty and scientific reasoning (Ben Ahmed and Pasnau 2021). This had important theological implications and led to

confrontations with theologians who believed that philosophical reflection was at odds with the Muslim faith. He sought to demonstrate the existence of God by showing that his creation was fine-tuned for humans in a way that could not be simply a matter of chance. In addition, he advanced an argument, taken up today by intelligent design advocates, that holds that it is not possible to explain the complexity of living beings without a creator.

Even as philosophy gained ground in the Islamic world, theological traditionalists remained influential. These traditionalists denied that reason could bring one closer to God. Ibn Rushd was among a number of philosophers who opposed this traditionalism and sought to show the compatibility of faith and reason. Not only did Ibn Rushd seek to show that reason was compatible with faith, he went further and cited Quranic scripture to show that religion required philosophical reflection. He wrote, "Many Quranic verses, such as 'Reflect, you have a vision' (59.2) and 'they give thought to the creation of heaven and earth' (3:191), command human intellectual reflection upon God and his creation" (quoted in Hiller 2016).

Al-Ghazali, *The Incoherence of the Philosophers*

Al-Ghazali (c.1056–1111) was one of the most prominent Sunni Muslim theologians and philosophers. Writing in a period after the initial establishment of the Sunni sect, he sought to refute various challenges to its teachings from both Shi'ite religious scholars and philosophers. In his most well-known work, *The Incoherence of the Philosophers,* Al-Ghazali sought to refute these challenges while also strengthening the theological basis for Sunnism. Ibn Rushd wrote a refutation of Al-Ghazali's *The Incoherence of the Philosophers.* In it, he argues against Al-Ghazali's claim that philosophical reflection must remain distinct from the Muslim faith and that mystical union with Allah or God is the only true path to religious enlightenment. This dispute between Al-Ghazali and Ibn Rushd represents the conflict between faith and reason that characterized medieval Islam. This same conflict remains relevant in the present.

Late Medieval Philosophy in Christian Europe

Christian philosophy during this period is influenced by the development of two institutions: the university and the monastery. The development of these institutions influenced the form that philosophy would take during this period. It was in these institutions that a systematic effort was made to combine philosophy and theology in the Christian world. The attempt to reconcile challenges posed to theology by philosophy is illustrated in the voluminous work of Bonaventure (1221–1274) and Thomas Aquinas (1225–1274).

Bonaventure

Bonaventure, a Franciscan friar from Italy, traveled to the University of Paris in 1235, where he encountered Aristotle, the Islamic philosophers, and a rigorous course of logic. Bonaventure fused Augustinian ideas with Aristotle. In his illumination argument, he argued that God is the source of all knowledge but that "knowledge of the divine truth is impressed on every soul" (quoted in Houser 1999, 98). The acquisition of knowledge proceeds from effect, the outward world that we observe, to its cause, God. Knowledge is acquired through reasoning, using abstract ideas, propositions, and observed correlations, but certainty about this knowledge is only obtained through Augustine's process of inner reflection or meditation through which we see the unchangeable divine light.

Thomas Aquinas

Thomas Aquinas (1225–1274) is the quintessential Scholastic philosopher, whose many works determined the course of European philosophy for generations. Somewhat like Immanuel Kant (1724–1804) several centuries later, philosophers after Aquinas knew that they would have to contend with his writings, either by extending his project or critiquing it. Aquinas saw that Scholastic philosophy needed to be reinvigorated, and he introduced the work of Jewish and Islamic philosophers to medieval Christian thought, bringing new ideas and approaches to philosophy (Van Norden 2017).

Aquinas is probably best known for his five ways to demonstrate the existence of God. The five ways are

considered natural theology because Aquinas does not depend upon the authority of the church to justify the existence of God. Instead, he writes that we can define God in five ways: as an unmoved mover, first cause, necessary being, absolute being, and grand designer. In order to avoid an infinite regress, we must assume an unmoved mover who put all the entities into motion. Similarly, God is the first cause of everything that exists, or else we face an infinite causal regress. Everything that exists has contingent existence, save for God. God is the necessary being upon which every contingent being depends. Contingent beings have qualities that are relative to one another (bigger and smaller, etc.), which entails an absolute being to whom all these are relative. Finally, the evidence of design in the world implies a grand designer. All natural bodies act to achieve an end. For example, an acorn gives rise to a tree. However, not all natural bodies are aware of and able to direct themselves to achieve this end. Therefore, an intelligent being must exist to guide these natural beings toward their end.

We can see Aristotle's influence in the metaphysics and epistemology of Aquinas as well as in his ethics and political philosophy. Aristotle defined God as the prime mover and "thought thinking itself." We can discern the influence of this idea in Aquinas's Five Ways. Aquinas also adopted Aristotle's virtue ethics and adapted them to his Christian context.

Jewish Philosophers in the Christian and Islamic Worlds

Although Jewish people did not enjoy equal status in Europe, Africa, and Asia, they did contribute to medieval philosophy in both the Christian and Islamic worlds. Perhaps the two most notable Jewish scholars of this period were Moses Maimonides and Levi ben Gershom.

Moses Maimonides

Moses ben Maimon, or Maimonides (1138–1204), was a physician, Torah scholar, and astronomer in addition to being a philosopher. Born in Cordova in Muslim-ruled Spain, he served as the personal physician of Saladin, the political and military leader of Muslim forces during the Second and Third Crusades.

Like many medieval thinkers across the various traditions of Islam, Judaism, and Christianity, Maimonides's philosophical work begins with the question concerning the relationship between theology and philosophy. His most well-known work, *The Guide for the Perplexed* (1190), is addressed to a student trying to decide which field of inquiry to pursue.

To the ancient Greek philosophers, God is the unmoved mover that sets into motion all other existence in a universe that has always existed. This conception of God conflicts with both the story of creation and with the idea of miracles, which necessitate intervention. These conflicts created perplexity in the minds of Maimonides's student and other Jews. This conflict came about, Maimonides proposed, because philosophers developed doctrines that do not follow from objective evidence and reason, whereas theologians erroneously interpreted religious texts literally (Bokser 1947).

Maimonides claimed that biblical literalism was the main reason people could not get closer to God. Instead, biblical texts ought to be interpreted figuratively. Typical of medieval thinkers in these traditions, Maimonides was a systematic thinker who held that ultimate truths akin to Platonic forms remain forever true in the mind of God, which our finite minds seek to apprehend. Adam and Eve comprehended these truths prior to the Fall, but in the post-Fall world, we can only approximate them. Literalism and a materialist conception of God are the two forces keeping us from a fuller knowledge.

Maimonides presents a demythologized conception of the divine that influences later thinkers, Spinoza among them. Like Xenophanes before him, Maimonides rejects anthropomorphic religious elements, such as God in human form. Although Maimonides grants that picturing the divine in human terms may be necessary for young believers, adherents should get over this tendency as they mature, as it obscures the true nature of the divine. The true nature of the divine is captured in the central prayer of Jewish faith, the Sh'ma: "Hear, oh, Israel, the Lord our God, the Lord is one." God is one—unity that is expressed in the biblical reference to God as

ein sof—without end. Maimonides argued that God cannot be broken into parts or assigned attributes. The Bible refers to God's rod and staff, but this is figurative and should not be taken literally (Robinson 2000). When the Bible refers to God as merciful or gracious, these are not moral attributes of God. Rather, Maimonides explained, God has performed actions—set into motion events—that if performed by a human, we would perceive as merciful or gracious (Putnam 1997).

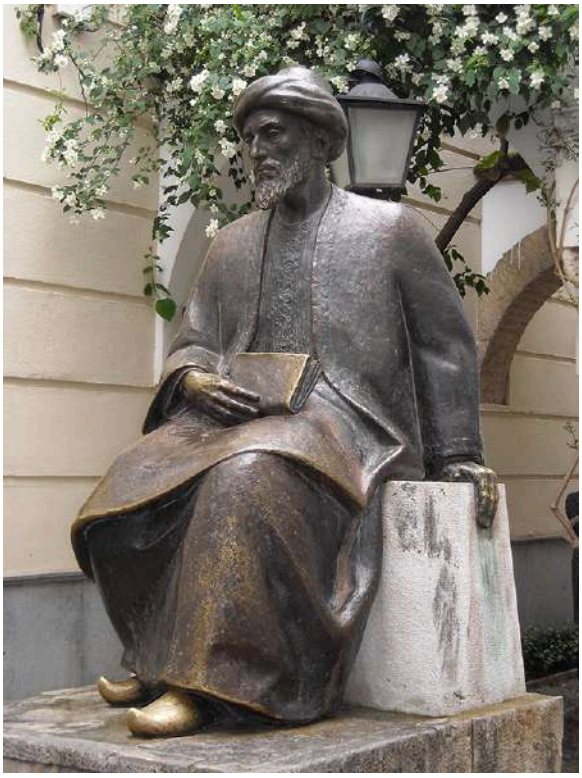

FIGURE 4.10 Although deeply religious, Maimonides opposed both literal interpretations of the Bible and anthropomorphized images of God, arguing that God cannot be imagined or even assigned attributes. This statue of Maimonides stands in his birthplace of Cordoba, Spain. (credit: "Maimónides" by Marco Chiesa/Flickr, CC BY 2.0)

Just as often we often understand God's attributes as analogous to human attributes, we often liken God's knowledge to human knowledge. This sort of analogical thinking is misguided, Maimonides argued. Human knowledge is finite and quantifiable, as is human power. God's knowledge and power are infinite and hence not the finite knowledge and power familiar to us. We may perceive God as gracious, but what we see as gracious is not God but an attribute of his action. "Every attribute that is found in the books of the deity . . . is therefore an attribute of His action and not an attribute of His essence" (Maimonides 1963, 121). This leads Maimonides to a radical negative theology asserting that human knowledge cannot conceive of what God is but only of what God is not. Humans can only ascribe attributes to God's actions and not God's essence. The role of revelation, as transmitted through the Jewish Bible, was not to acquaint us with knowledge of God but rather to guide us to our highest ends—and in doing so, we come as close to God as is possible (Bokser 1947). Maimonides's negative theology was radical and was challenged, perhaps most notably, by St. Thomas Aquinas.

Levi ben Gershom (Gersonides)

Like Maimonides, Gersonides (1288–1344) sought to demonstrate the compatibility between Jewish faith and reason. His most well-known work, *Wars of the Lord*, takes up the problem of the relationship between Torah or Jewish scripture on the one hand and reason on the other. Gersonides also made major contributions to the scientific study of astronomy. Applying mathematical calculations to data he collected using tools that he himself created, Gersonides concluded that several principles advanced by the Greek astronomer Ptolemy were wrong. For Gersonides, reason was both mathematical and empirical. He built upon the work of

Maimonides and Averroes, and his work can be read as an effort to understand Aristotle through these predecessors.

The Rise of Reason in the Early Modern Era

Although scholars agree that the early modern era ended with the 1789 French Revolution, there is still much debate about when it began. Some mark the beginning as the 1453 Ottoman conquest of Constantinople that drove scholars of the East into the West, carrying with them knowledge of Islamic intellectual advances. Some look to the Age of Discovery sparked by the Ottoman victory and the subsequent closing down of European access to trade routes (Goldstone 2009). Others point to the 1543 publication of Nicolas Copernicus's text *On the Revolutions of the Heavenly Spheres*, refuting the heliocentric theory that proposed the solar system revolved around the sun. In philosophy, the early modern era is delineated by the rapid advancement of natural philosophy, which in turn sparked the scientific revolution. This development relied upon the ability of scholars and clerics to openly question religious orthodoxy as the sole, authoritative source of truth and to instead seek answers through human reason.

Nicolaus Copernicus

Nicolaus Copernicus (1473–1543), born in Poland and raised by his uncle who was a bishop in the Catholic Church, matriculated from the University of Krakow. Although appointed a canon in the Catholic Church, he was able to continue his studies in mathematics, astronomy, and medicine at universities in Padua and Bologna in Italy. At the time, the Catholic Church espoused the ancient Greek astronomer Ptolemy's geocentric model of the solar system, in which the sun and the planets revolve around Earth. However, Copernicus's mathematical analysis of the astronomical data indicated that Earth and other planets revolved around the sun. As a canon in the Catholic Church, Copernicus feared to publish this data and sat on his discovery for over two decades. It was only after his colleague and friend Lutheran professor of mathematics Georg Joachim Rheticus published Copernican ideas in *Narratio Prima* in 1540 that Copernicus released *On the Revolutions of the Heavenly Spheres* in 1543. In an attempt to shield himself and his work, he dedicated the manuscript to the pope.

READ LIKE A PHILOSOPHER

Read this excerpt from the preface of *On the Revolutions of the Heavenly Spheres*, which was dedicated to Pope Paul III. How does Copernicus's use of the word *consensus* shift the authority for truth from the church to natural philosophers?

> Those who know that the consensus of many centuries has sanctioned the conception that the earth remains at rest in the middle of the heavens as its center, would, I reflected, regard it as an insane pronouncement if I made the opposite assertion that the earth moves. . . . Therefore, when I considered this carefully, the contempt which I had to fear because of the novelty and apparent absurdity of my view, nearly induced me to abandon utterly the work I had begun.
>
> Therefore, when I considered this carefully, the contempt which I had to fear because of the novelty and apparent absurdity of my view, nearly induced me to abandon utterly the work I had begun. Not a few other very eminent and scholarly men made the same request, urging that I should no longer through fear refuse to give out my work for the common benefit of students of Mathematics. Therefore I would not have it unknown to Your Holiness, the only thing which induced me to look for another way of reckoning the movements of the heavenly bodies was that I knew that mathematicians by no means agree in their investigation thereof.

Zera Yacob

Whereas Copernicus did not directly challenge church authority, the Ethiopian scholar Zera Yacob

(1592–1692) did. Yacob, born in the district of Axum within the Ethiopian Empire, studied Christian, Jewish, and Islamic thought. Ethiopia had adopted Christianity as the state religion in 330 CE. The Christian kingdom resisted Islamic conquest for hundreds of years. By 1540, however, Ahmed Gragn, supported by the Ottoman Empire based in Turkey, succeeded in capturing much of the kingdom. The Ethiopian emperor then appealed to Portugal for support. Portugal sent troops that helped Ethiopia regain its territory. In the years that followed, Jesuit missionaries from Portugal arrived in Ethiopia and converted Emperor Susenyos from Ethiopian Orthodox Christianity to Catholicism. When Ethiopian Emperor Susenyos declared Catholicism the state religion in 1622, a civil war broke out. Yacob was forced to flee to the countryside. There, he composed much of *Hatata* (Inquiry), published in 1668 after the emperor's death.

Although deeply religious, Yacob argued against the supremacy of one religion over another. Rather, he counseled that we must rely on reason to evaluate religious tracts and traditions—and in this way, reach God. For Yacob, God is not only the master of all things, but he also understands all things: "He is intelligent who understands all, for he created us as intelligent from the abundance of his intelligence" (Yacob 1976, 8). God had a purpose in creating humans as intelligent beings, and that purpose was for humans "to look for him and to grasp him and his wisdom in the path he has opened for [them] and to worship him as long as [they] live" (Yacob 1976, 8).

The method of inquiry Yacob proposed echoes the ideas of Augustine and Aquinas. It involves reflection, observation, and connecting to a God-given light, our reason. Yacob explained that "he who investigates with the pure intelligence set by the creator in the heart of each man and scrutinizes the order and laws of creation, will discover the truth" (Yacob 1976, 9). However, using scrutiny and reason, Yacob rejected some religious doctrine, in a manner that Augustine and Aquinas would have seen as sacrilegious. He discarded all beliefs that he judged to not agree with the "wisdom of the creator," which he said we can know by observing "the order and laws of creation." While accepting Moses as a prophet, Yacob rejected the stories of the miracles Moses is said to have performed. Similarly, Yacob called into question Mohammed's miracles. Yacob believed that in the beginning, God had established the laws by which the world worked. Why would God violate his own laws by allowing some individuals to perform miracles? In Yacob's view, the stories of these miracles arose instead from false human understanding.

Yacob, Copernicus, and others had to challenge religious authorities in arguing for a truth based on reason, mathematical logic, and scientific observation. However, by the 18th century, governments began to embrace these methods and establish schools and institutes to expand knowledge of the natural world. This period of change is known as the Enlightenment. This process, as well as the rapid development and implementation of new technologies and the spread of capitalism, is often referred to as *modernization*.

Much of the remainder of this text examines the ideas of thinkers who lived during the Enlightenment as well as later in the modern era. They laid out the foundations for scientific inquiry, laid down the arguments for government based on popular representation rather than divine rule, and proposed economic systems designed to create wealth, which freed societies from feudal bonds. In doing so, these thinkers studied the works of classical and medieval philosophy while advancing ideas about metaphysics, epistemology, and ethics that this text examines in the chapters that are to come.

Summary

4.1 Historiography and the History of Philosophy

Scholars adopt three main approaches to the history of philosophy. The presentist approach to the history of philosophy examines philosophical texts for the arguments they contain and judges whether their conclusions remain relevant for philosophical concerns today. While making the wisdom of the past available for present applications, this approach has been critiqued on two points: 1) in reading philosophical texts too narrowly, past philosophers are judged by contemporary standards; 2) this approach may also result in anachronistic errors, as ideas from contemporary philosophy may be inaccurately attributed to historical philosophers. A contextualist approach interprets philosophy in terms of the historical and cultural contexts in which it was written. While this approach can yield deep understanding of historical moments and historical ways of thinking, it can be blind to the lasting value of philosophical inquiry. A hermeneutic approach attempts to take the best of the presentist and contextualists approaches, viewing the historical context of original texts seriously but also recognizing that our interpretation of history is connected to and conditioned by our contemporary context.

4.2 Classical Philosophy

Classical Greek philosophy owes much to Egyptian scholarship emanating from Heliopolis, as both Pythagoras and Plato are believed to have studied at that center of learning. Indeed, the Plimpton 332 clay tablet reveals that Babylonian mathematicians knew not only of the Pythagorean theorem of right triangles but also of trigonometric functions. Classical philosophy emerged in ancient Greece with the Presocratics; the three great philosophers Socrates (470–399 BCE), Plato (c. 428–347 BCE), and Aristotle (384–322 BCE); and schools of thought that came after—Epicureans, stoics, and others. From what remains of the works of the Presocratics, they were primarily interested in questions of metaphysics and natural philosophy. Some Presocratics, such as Parmenides, were monists while others, such as Heraclitus, were plurists. Plato advanced a theory of the forms, a metaphysical doctrine that holds that every particular thing that exists participates in an immaterial form or essence that gives this thing its identity. The invisible realm of the forms differs fundamentally from the changing realm we experience in this world. The invisible realm is eternal, unchanging, and perfect. Aristotle's work centers on his doctrine of the four causes: "What's it made of?" (material cause), "What shape does it have?" (formal cause), "What agent gave it this form?" (efficient cause), and, finally, "What is its end goal?" (final cause). The four causes can explain nature of all things in this universe, including the universe itself. Aristotle's universe is a closed system of final causes. Each final cause leads to another, until we get to the first cause or prime mover.

4.3 Jewish, Christian, and Islamic Philosophy

Greek and Roman imperialism in the Middle East and North Africa brought Jews—and later, Christians—into the intellectual sphere of Hellenism. Jewish and later Christian scholars incorporated ideas of classical Greek and Roman philosophy into their own theological studies. As Arab conquerors and traders expanded into the Middle East and Africa, the Muslim world adopted and advanced classical philosophy and the natural sciences. Yet a tension at all times runs through these works as philosophers tried to balance theological revelation and freedom of intellectual exploration. Unlike the classical Greek and Roman philosophers, the Jewish, Christian, or Muslim philosopher always works with a partner, the events and facts central to the religion. It is only in the early modern age that philosophers replace the primacy of God as the source of truth with reason.

Key Terms

Contextualist approach an approach to the philosophy that interprets the ideas of philosophers in terms of the historical and cultural contexts in which they wrote.

Empiricism a belief that all knowledge is derived inductively from sense experience.

Hermeneutic approach an approach to philosophy that takes the historical context of the original text

seriously but also recognizes the influence of contemporary issues and perspectives.

Logos the thoughts of God, which according to Philo of Alexandria serve as the means by which God creates the physical world.

Monism the belief that the universe is made up of one substance.

Natural philosophy the fields of study that eventually gave rise to science.

Plurism the belief that the universe is made up of more than one substance.

Presentist approach an approach to philosophy that examines philosophical texts for the arguments they contain and judges how and whether they remain relevant today.

Theory of the forms a metaphysical doctrine that holds that every particular thing that exists in our changing, material world participates in an immaterial form or essence, which is unchanging, invisible, and perfect and which gives this thing its identity.

Zeno's paradoxes paradoxes proposed by Zeno that attempt to prove that change and motion are illusory.

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Review Questions

4.1 Historiography and the History of Philosophy

1. What are the advantage and disadvantages of a presentist approach to the history of philosophy?
2. What are the advantages and disadvantages of a contextualist approach to the history of philosophy?
3. What approach to the history of philosophy represents a middle ground between the presentists and the contextualists?

4.2 Classical Philosophy

4. What evidence suggests that many of the ideas that we attribute to Greek philosophers may have had their origin in ancient Egypt or Babylonia?
5. How can one justify Parmenides's claim that the world is unchanging?
6. What are Aristotle's four causes, and how did he apply them?
7. How can one justify Parmenides's claim that the world is unchanging?
8. What are Aristotle's four causes, and how did he apply them?

4.3 Jewish, Christian, and Islamic Philosophy

9. How is Jewish, Christian, and Muslim philosophy different from classical philosophy?
10. How did Philo of Alexandria develop Plato and Aristotle's ideas to explain the creation?

11. How did Ibn Sina's scientific approach differ from that of the Aristotle and the Epicureans?

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Logic and Reasoning

5

FIGURE 5.1 Buddhist monks debating at the Sera Monastery in Mysore, India. (credit: modification of "Monks at Sera Monastery 24" by Esther Lee/Flickr, CC BY 2.0)

CHAPTER OUTLINE

INTRODUCTION Within the philosopher's toolkit, logic is arguably the most powerful tool, and certainly it gets the most use. Logic, the study of reasoning, aims to formalize and describe reasoning processes used to arrive at claims. Logic is a study of both how we *do* reason and how we *ought* to reason. Logicians categorize and explain different forms of successful reasoning along with mistakes in reasoning, with the goal of understanding what to do right and what to avoid. This chapter seeks to provide you with a general understanding of the discipline of logic.

5.1 Philosophical Methods for Discovering Truth

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Describe the role that dialectics plays in logic and reasoning.
- Define "argument" and "negation of a argument."
- Define the laws of noncontradiction and the excluded middle.

Like most academic disciplines, the goal of philosophy is to get closer to the truth. Logic, reasoning, and argumentation are the predominant methods used. But unlike many other disciplines, philosophy does not contain a large body of accepted truths or canonical knowledge. Indeed, philosophy is often known for its uncertainty because it focuses on questions for which we do not yet have ways of definitively answering. The influential 20th-century philosopher Bertrand Russell explains that "as soon as definite knowledge concerning any subject becomes possible, the subject ceases to be called philosophy, and becomes a separate science" (1912, 240).

Because philosophy focuses on questions we do not yet have ways of definitively answering, it is as much a method of thinking as it is a body of knowledge. And logic is central to this method. Thinking like a philosopher involves thinking critically about alternative possibilities. To answer the question of whether there is a God (a question for which we lack a definitive method of answering), we can look at things we believe we know and then critically work through what those ideas entail about the existence or possible characteristics of God. We can also imagine God exists or God does not exist and then reason through what either possibility implies about the world. In imagining alternative possibilities, we must critically work through what each possibility must entail. Changing one belief can set off a cascade of implications for further beliefs, altering much of what we accept as true. And so, in studying philosophy, we need to get used to the possibility that our beliefs could be wrong. We use reason to do philosophy, and logic is the study of reason. Hence, logic helps us get closer to the truth.

Dialectics and Philosophical Argumentation

Philosophers love to argue. But this love does not mean that philosophy lectures are loud, contentious events. Most people think of an argument as a verbal disagreement, and the term evokes images of raised voices, heightened emotions, and possibly bad behavior. However, in philosophy, this word does not have a negative connotation. An **argument** in philosophy is a reasoned position—to argue is simply to offer a set of reasons in support of some conclusion. The goal of an individual argument is to support a conclusion. However, the long-term goal of argumentation between philosophers is to get closer to the truth. In contemporary academic philosophy, philosophers are engaged in dialogue with each other where they offer arguments in the publication of articles. Philosophers also engage in argument at conferences and in paper presentations and lectures. In this way, contemporary academic philosophers are engaged in a dialectic of sorts.

A traditional dialectic is a debate or discussion between at least two people who hold differing views. But unlike debate, participants in the discussion do not have the goal of "winning," or proving that the other view is wrong. Rather, the goal is to get closer to the truth. Thus, dialectics make use of logic and reason, while debates often use rhetorical ploys or appeal to the emotions. Because of the tendency of participants to appeal to emotion and prejudice in many modern popular debates, philosophers often qualify their words and refer to *reasoned* debate when discussing proper public discourse between people. But even reasoned debates can become adversarial, while dialectics are mostly collaborative. The participants in a dialectic, whom philosophers refer to as "interlocuters," enter into discourse with the aim of trading their poor or false beliefs for knowledge.

Dialectics usually start with a question. An interlocuter offers an answer to the question, which is then scrutinized by all participants. Reasons against the answer are given, and someone may offer a counterexample to the answer—that is, a case that illustrates that the answer is wrong. The interlocuters will

then analyze why the answer is wrong and try to locate its weakness. The interlocuters may also examine what made the answer plausible in the first place. Next, someone offers another answer to the question—possibly a refined version of the previous answer that has been adjusted in light of the weaknesses and strengths identified in the analysis. This process is repeated over and over, with each iteration theoretically bringing participants closer to the truth.

While dialectics aims at the truth, the creation of knowledge is not its sole function. For example, a long, deep conversation with a friend about the meaning of life should not be viewed as a failure if you do not come up with a satisfactory answer to life's purpose. In this instance, the process has as much value as the aim (getting closer to the truth). Contemporary academic philosophers view their practice in the same way.

Indian Dialectics and Debate

Dialectics played an important role in early Indian philosophy. The earliest known philosophical writings originate in India as sections of the Vedas, which have been dated as far back as 1500 BCE (Mark 2020). The Vedas are often considered religious texts, but it is more accurate to think of them as religious *and* philosophical texts since they explore what it means to be a human being, discuss the purpose and function of the mind, and attempt to identify the goal of life. The Upanishads, which are the most philosophical of the Vedic texts, often take the form of dialogues. These dialogues generally occur between two participants—one who knows a truth and the other who seeks to know and understand the truth. The Vedic dialectics explore fundamental concepts such as *Brahman* (the One without a second, which includes the universe as its manifestation), *dharma* (an individual's purpose and duty), and *atman* (an individual's higher self). As in many dialectics, questioning, reasoning, and realizations that arise through the dialogue are the aim of these texts.

Buddhist philosophical texts that were part of early Indian philosophy also contain narrative dialogues (Gillon 2021). Logical argumentation is evident in these, and as time progressed, texts became more focused on argument, particularly those relying on analogical reasoning, or the use of analogies. Analogies use an object that is known to draw inferences about other similar objects. Over time, the analogical arguments used in Buddhist texts took on *structure*. When arguments have structure, they rely on a form that captures a specific manner of reasoning, such that the reasoning can be schematized. As an example, consider the following argument that appears in the *Caraka-saṃhitā* (CS 3.8.31) (Gillon 2021). The argument has been slightly altered to aid in understanding.

Soul Analogical Argument

1. The soul is eternal.
2. Space is eternal and it is unproduced.
3. Therefore, the soul is eternal because it is unproduced.

Analogical Argument Form

1. X has property P.
2. Y has property P and property S.
3. Therefore, X has property S because it has property P

As you will see later in the section on deductive argumentation, relying on argumentative structure is a feature of logical reasoning.

Classical Indian philosophical texts also refer to the occurrence of reasoned public debates. Public debate was a further method of rational inquiry and likely the main mode of rational inquiry that most people had access to. One mode of debate took the form of assemblies in which experts considered specific topics, including those in politics and law (Gillon 2021). Arguments are the public expression of private inferences, and only by exposing one's private thoughts through argument can they be tested. Public arguments are a method to improve one's reasoning when it is scrutinized by others.

Greek Dialectics and Debate

Ancient Greek philosophy is also known for its use of dialectic and debate. Socrates, perhaps the most famous ancient Greek philosopher, claimed that knowledge is true opinion backed by argument (Plato, *Meno*). "Opinion" here means unjustified belief: your beliefs could be true, but they cannot count as knowledge unless you have reasons for them and can offer justifications for your beliefs when questioned by others. Furthermore, Socrates's method of gaining knowledge was to engage in dialectics with others. All of what we know about Socrates is through the writings of others—particularly the writings of Plato. Quite appropriately, Plato uses dialogues in all his works, in which Socrates is almost always a participant.

Socrates never wrote anything down. In the *Phaedrus*, one of Plato's dialogues, Socrates criticizes written works as being a dead discourse of sorts. Books cannot respond to you when you ask questions. He states, "You'd think they were speaking as if they had some understanding, but if you question anything that has been said because you want to learn more, it continues to signify just the very same thing forever" (*Phaedrus*, 275e). Clearly, dialectics was central to Socrates's philosophical method.

CONNECTIONS

Learn more about Socrates in the introduction to philosophy chapter.

Plato's dialogues are a testament to the importance of public discourse as a form of rational inquiry in ancient Greece. Based on Greek philosophical writings, we can assume reasoned public debate took place and that Socrates preferred it as a method of teaching and learning. In Plato's dialogues, many questions are asked, and Socrates's interlocuters offer answers to which Socrates asks further clarifying questions. Through the process of questioning, false beliefs and inadequate understanding are exposed. Socrates's goal was not simply to offer people truth. Rather, through questioning, Socrates guides people to discover the truth on their own, provided they are willing to keep an open mind and admit, when necessary, that they are in the wrong. In Plato's dialogues, participants don't always land on a determinate answer, but they as well as readers are always left with a clearer understanding of the correct way to *reason*.

If any ancient Greek philosopher most embodies the tie between dialectic and logic, it is Aristotle (c. 384–322 BCE), who was a student of Plato. Aristotle wrote books on the art of dialectic (Smith 2020). And he probably participated in gymnastic dialectic—a structured dialectic contest practiced in the Academy (the school founded by Plato, which Aristotle attended). But more importantly, Aristotle created a complex system of logic upon which skill in the art of dialectic relied. Aristotle's logic is the earliest formal systematized account of inference we know of and was considered the most accurate and complete system until the late 19th century (Smith 2020). Aristotle's system is taught in logic classes to this day.

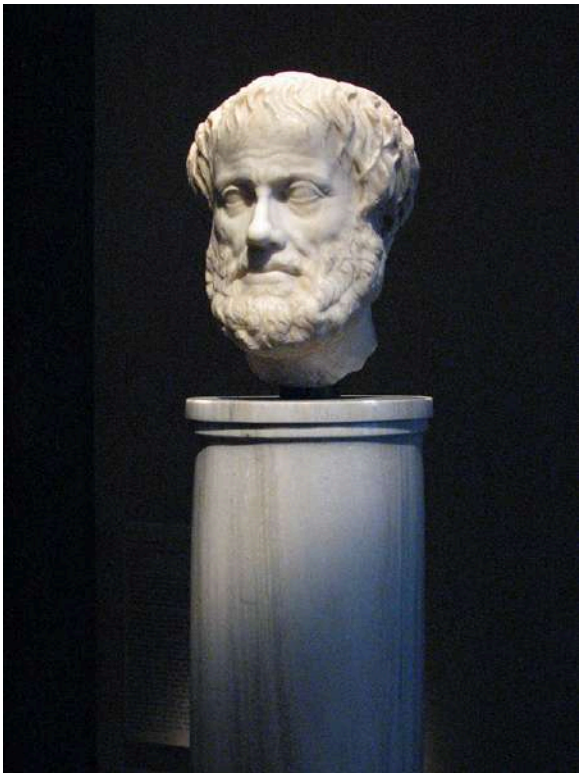

FIGURE 5.2 Roman copy in marble of a Greek bronze bust of Aristotle. (credit: "Vienna 014" by Jeremy Thompson/ Flickr, CC BY 2.0)

The Use of Reason to Discover Truth

Reasoning allows us to hypothesize, work out consequences of our hypotheses, run thought experiments, assess the coherence of a set of beliefs, and generate plausible explanations of the world around us. As Chapter 1 explained, coherence is the property of consistency in a set of beliefs. Thus, when a set of beliefs is inconsistent, it is not possible for every belief in the set to be true. We must use reason to determine whether a set of beliefs is consistent and work out the logical implications of beliefs, given their truth. In this way, reason can be used to discover truth.

The rules of logic are like the rules of math; you cannot make 1 + 1 = 3. Indeed, math is a form of deductive reasoning that ensures truth. Answers to problems in math are derived using known functions and rules, which is also true in logic. Unlike math, however, not all of logic can *guarantee* correct answers. Nonetheless, logic supplies means by which to derive better answers—answers that are more likely to be true. Because logic is the study of proper reasoning, and proper reasoning is an essential tool for discovering truth, logic is foundational to the pursuit of learning.

Testing Hypotheses

A **hypothesis** is a proposed explanation for an observed process or phenomenon. Human beings formulate hypotheses because they wish to answer specific questions about the world. Usually, the sciences come to mind when we think of the word "hypothesis." However, hypotheses can be created on many subjects, and chances are that you have created many hypotheses without realizing it. For example, if you often come home and find that one of your outside potted plants has been knocked over, you might hypothesize that "the wind must have knocked that one over." In doing so, you answer the question, "Why is that plant often knocked over?" Generating and testing hypotheses engages different forms of reasoning— abduction, induction, and deduction—all of which will be explained in further detail below.

Clearly, simply coming up with a hypothesis isn't enough for us to gain knowledge; rather, we must use logic to

test the truth of our supposition. Of course, the aim of testing hypotheses is to get to the truth. In testing we often formulate if–then statements: "If it is windy, then my plant will get knocked over" or "If nitrogen levels are high in the river, then algae will grow." If–then statements in logic are called conditionals and are testable. For example, we can keep a log registering the windy days, cross-checked against the days on which the plant was found knocked over, to test our if–then hypothesis.

Reasoning is also used to assess the evidence collected for testing and to determine whether the test itself is good enough for drawing a reliable conclusion. In the example above, if on no windy days is the plant knocked over, logic demands that the hypothesis be rejected. If the plant is sometimes knocked over on windy days, then the hypothesis needs refinement (for example, wind direction or wind speed might be a factor in when the plant goes down). Notice that logic and reasoning play a role in every step of the process: creating hypotheses, figuring out how to test them, compiling data, analyzing results, and drawing a conclusion.

FIGURE 5.3 "If it is windy, the plant will be knocked over" is a testable hypothesis. If the plant is found knocked over on days that aren't windy, another force may be responsible. Hypotheses help philosophers, as well as scientists, answer specific questions about the world. (credit: "strollin' with Fräulein Zeiss - 5" by torne (where's my lens cap?)/Flickr, CC BY 2.0)

We've been looking at an inconsequential example—porch plants. But testing hypotheses is serious business in many fields, such as when pharmaceutical companies test the efficacy of a drug in treating a life-threatening illness. Good reasoning requires researchers to gather enough data to compare an experimental group and control group (patients with the illness who received the drug and those who did not). If scientists find a statistically significant difference in positive outcomes for the experimental group when compared to the control group, they can draw the reasonable conclusion that the drug could alleviate illness or even save lives in the future.

Laws of Logic

Logic, like the sciences, has laws. But while the laws of science are meant to accurately describe observed regularities in the natural world, laws of logic can be thought of as rules of thought. Logical laws are rules that underlie thinking itself. Some might even argue that it is only by virtue of these laws that we can have reliable thoughts. To that extent, laws of logic are construed to be laws of reality itself. To see what is meant by this, let's consider the **law of noncontradiction**.

Noncontradiction

To understand the law of noncontradiction, we must first define a few terms. First, a **statement** is a sentence with truth value, meaning that the statement must be true or false. Statements are declarative sentences like "Hawaii is the 50th state to have entered the United States" and "You are reading an online philosophy book." Sometimes philosophers use the term "proposition" instead of "statement," and the latter term has a slightly different meaning. But for our purposes, we will use these terms as synonyms. Second, a *negation* of a

statement is the denial of that statement. The easiest way to turn a statement into its negation is to add the qualifier "not." For example, the negation of "My dog is on her bed" is "My dog is not on her bed." Third, a **contradiction** is the conjunction of any statement and its negation. We may also say that any statement and its opposite are *contradictory*. For example, "My dog is on her bed" and "My dog is not on her bed" are contradictory because the second is the negation of the first. And when you combine a statement and its opposite, you get a contradiction: "My dog is on her bed and my dog is not on her bed."

The law of noncontradiction is a law about truth, stating that contradictory propositions cannot be true *in the same sense, at the same time*. While my dog may have been on her bed earlier and now she's off barking at squirrels, it cannot be true *right now* that my dog is both on her bed and not on her bed. However, some of you may be thinking about dogs who lie half on their beds and half on the floor (Josie, the dog belonging to the author of this chapter, is one of them). Can it not be true that such a dog is both on and not on their bed? In this instance, we must return to the phrase *in the same sense*. If we decide that "lying on the bed" means "at least 50% of your body is on the bed," then we must maintain that definition when looking at propositions to determine whether they are contradictory. Thus, if Josie is half out of the bed with her head on the floor, we can still say "Josie is on the bed." But notice that "Josie is not on the bed" remains false since we have qualified the meaning of "on the bed."

For Aristotle, the law of noncontradiction is so fundamental that he claims that without it, knowledge would not be possible—the law is foundational for the sciences, reasoning, and language (Gottlieb 2019). Aristotle thought that the law of noncontradiction was "the most certain of all principles" because it is impossible for someone to believe that the same thing both is and is not (1989, 1005b).

The Excluded Middle

The law of the excluded middle is related to the law of noncontradiction. The **law of the excluded middle** states that for any statement, either that statement is true, or its negation is true. If you accept that all statements must be either true or false *and* you also accept the law of noncontradiction, then you must accept the law of the excluded middle. If the only available options for truth-bearing statements are that they are true or false, and if a statement and its negation cannot both be true at the same time, then one of the statements must be true while the other must be false. Either my dog is on her bed or off her bed *right now*.

Normativity in Logic

What if Lulu claims that she is 5 feet tall and that she is 7 feet tall? You'd think that she was joking or not being literal because this is tantamount to saying that she is both 5 feet tall and *not* 5 feet tall (which is implied by being 7 feet tall). The statement "I'm 5 feet tall and not 5 feet tall" is a contradiction. Surely Lulu does not believe a contradiction. We might even think, as Aristotle did, that it is impossible to believe a contradiction. But even if Lulu could believe a contradiction, we think that she *should not*. Since we generally believe that inconsistency in reasoning is something that *ought to be avoided*, we can say that logic is normative. Normativity is the assumption that certain actions, beliefs, or other mental states are good and ought to be pursued or realized. Normativity implies a standard (a norm) to which we ought to conform. Ethics is a normative discipline because it is the study of how we ought to act. And because we believe people ought to be logical rather than illogical, we label logic as normative.

While ethics is normative in the realm of actions and behavior, logic is normative in the realm of reasoning. Some rules of thought, like the law of noncontradiction, seem to be imperative (a command), so logic is a command of reasoning. Some philosophers argue that logic is what makes reasoning possible (MacFarlane 2002). In their view, logic is a constitutive norm of reasoning—that is, logic constitutes what reasoning *is*. Without norms of logic, there would be no reasoning. This view is intuitively plausible: What if your thoughts proceeded one after the other, with no connection (or ability to detect a connection) between them? Without logic, you would be unable to even categorize thoughts or reliably attach concepts to the contents of thoughts. Let's take a closer look at how philosophers use special logical statements to organize their reasoning.

5.2 Logical Statements

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify the necessary and sufficient conditions in conditionals and universal affirmative statements.
- Describe counterexamples for statements.
- Assess the truth of conditionals and universal statements using counterexamples.

Specific types of statements have a particular meaning in logic, and such statements are frequently used by philosophers in their arguments. Of particular importance is the *conditional*, which expresses the logical relations between two propositions. Conditional statements are used to accurately describe the world or construct a theory. Counterexamples are statements used to disprove a conditional. Universal statements are statements that assert something about every member of a set of things and are an alternative way to describe a conditional.

Conditionals

A **conditional** is most commonly expressed as an if–then statement, similar to the examples we discussed earlier when considering hypotheses. Additional examples of if–then statements are "If you eat your meat, then you can have some pudding" and "If that animal is a dog, then it is a mammal." But there are other ways to express conditionals, such as "You can have pudding *only if* you eat your meat" or "*All* dogs are mammals." While these sentences are different, their logical meaning is the same as their correlative if–then sentences above.

All conditionals include two components—that which follows the "if" and that which follows the "then." Any conditional can be rephrased in this format. Here is an example:

> Statement 1: You must complete 120 credit hours to earn a bachelor's degree.
>
> Statement 2: If you expect to graduate, then you must complete 120 credit hours.

Whatever follows "if" is called the *antecedent*; whatever follows "then" is called the *consequent*. *Ante* means "before," as in the word "antebellum," which in the United States refers to anything that occurred or was produced *before* the American Civil War. The *ante*cedent is the first part of the conditional, occurring *before* the consequent. A consequent is a result, and in a conditional statement, it is the result of the antecedent (if the antecedent is true).

Necessary and Sufficient Conditions

All conditionals express two relations, or *conditions*: those that are necessary and those that are sufficient. A relation is a relationship/property that exists between at least two things. If something is sufficient, it is always sufficient *for something else*. And if something is necessary, it is always necessary *for something else*. In the conditional examples offered above, one part of the relation is required for the other. For example, 120 credit hours are required for graduation, so 120 credit hours is necessary if you expect to graduate. Whatever is the consequent—that is, whatever is in the second place of a conditional—is necessary for that particular antecedent. This is the relation/condition of necessity. Put formally, Y is a **necessary condition** for X *if and only if X cannot be true without Y being true*. In other words, X cannot happen or exist without Y. Here are a few more examples:

- Being unmarried is a necessary condition for being a bachelor. If you are a bachelor, then you are unmarried.
- Being a mammal is a necessary condition for being a dog. If a creature is a dog, then it is a mammal.

But notice that the *necessary relation* of a conditional does not automatically occur in the other direction. Just because something is a mammal does not mean that it *must* be a dog. Being a bachelor is not a necessary feature of being unmarried because you can be unmarried and be an unmarried woman. Thus, the

relationship between X and Y in the statement "if X, then Y" is not always symmetrical (it does not automatically hold in both directions). Y is always *necessary* for X, but X is *not necessary* for Y. On the other hand, X is always *sufficient* for Y.

Take the example of "If you are a bachelor, then you are unmarried." If you know that Eric is a bachelor, then you automatically know that Eric is unmarried. As you can see, the antecedent/first part is the sufficient condition, while the consequent/second part of the conditional is the necessary condition. X is a **sufficient condition** for Y *if and only if the truth of X guarantees the truth of Y.* Thus, if X is a sufficient condition for Y, then X automatically implies Y. But the reverse is not true. Oftentimes X is not the only way for something to be Y. Returning to our example, being a bachelor is not the only way to be unmarried. Being a dog is a sufficient condition for being a mammal, but it is *not necessary* to be a dog to be a mammal since there are many other types of mammals.

FIGURE 5.4 All dogs are mammals, but not all mammals are dogs. Being a dog is a sufficient condition for being a mammal but it is not necessary to be a dog to be a mammal. (credit: "Sheepdog Trials in California" by SheltieBoy/ Flickr, CC BY 2.0)

The ability to understand and use conditionals increases the clarity of philosophical thinking and the ability to craft effective arguments. For example, some concepts, such as "innocent" or "good," must be rigorously defined when discussing ethics or political philosophy. The standard practice in philosophy is to state the meaning of words and concepts before using them in arguments. And oftentimes, the best way to create clarity is by articulating the necessary or sufficient conditions for a term. For example, philosophers may use a conditional to clarify for their audience what they mean by "innocent": "If a person has not committed the crime for which they have been accused, then that person is innocent."

Counterexamples

Sometimes people disagree with conditionals. Imagine a mother saying, "If you spend all day in the sun, you'll get sunburnt." Mom is claiming that getting sunburnt is a *necessary* condition for spending all day in the sun. To argue against Mom, a teenager who wants to go to the beach might offer a **counterexample**, or an opposing statement that proves the first statement wrong. The teenager must point out a case in which the claimed necessary condition *does not occur* alongside the sufficient one. Regular application of an effective sunblock with an SPF 30 or above will allow the teenager to avoid sunburn. Thus, getting sunburned is not a necessary condition for being in the sun all day.

Counterexamples are important for testing the truth of propositions. Often people want to test the truth of statements to effectively argue against someone else, but it is also important to get into the critical thinking

habit of attempting to come up with counterexamples for our own statements and propositions. Philosophy teaches us to constantly question the world around us and invites us to test and revise our beliefs. And generating creative counterexamples is a good method for testing our beliefs.

Universal Statements

Another important type of statement is the **universal affirmative statement**. Aristotle included universal affirmative statements in his system of logic, believing they were one of only a few types of meaningful logical statements (*On Interpretation*). Universal affirmative statements take two groups of things and claim all members of the first group are also members of the second group: "All A are B." These statements are called *universal* and *affirmative* because they assert something about all members of group A. This type of statement is used when classifying objects and/or the relationships. Universal affirmative statements are, in fact, an alternative expression of a conditional.

Universal Statements as Conditionals

Universal statements are logically equivalent to conditionals, which means that any conditional can be translated into a universal statement and vice versa. Notice that universal statements also express the logical relations of necessity and sufficiency. Because universal affirmative statements can always be rephrased as conditionals (and vice versa), the ability to translate ordinary language statements into conditionals or universal statements is helpful for understanding logical meaning. Doing so can also help you identify necessary and sufficient conditions. Not all statements can be translated into these forms, but many can.

Counterexamples to Universal Statements

Universal affirmative statements also can be disproven using counterexamples. Take the belief that "All living things deserve moral consideration." If you wanted to prove this statement false, you would need to find *just one* example of a living thing that you believe does not deserve moral consideration. Just one will suffice because the categorical claim is quite strong—that *all* living things deserve moral consideration. And someone might argue that some parasites, like the protozoa that causes malaria, do not deserve moral consideration.

5.3 Arguments

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Define key components of an argument.
- Categorize components of sample arguments.
- Explain the difference between assessing logic and assessing truth.

As explained at the beginning of the chapter, an **argument** in philosophy is simply a set of reasons offered in support of some conclusion. So an "arguer" is a person who offers reasons for a specific conclusion. Notice that the definition does not state that the reasons *do* support a conclusion (and rather states reasons are *offered* or *meant* to support a conclusion) because there are bad arguments in which reasons do not support a conclusion.

Arguments have two components: the conclusion and the reasons offered to support it. The conclusion is what an arguer wants people to believe. The reasons offered are called **premises**. Often philosophers will craft a numbered argument to make clear each individual claim (premise) given in support of the conclusion. Here is an example of a numbered argument:

1. If someone lives in San Francisco, then they live in California.
2. If someone lives in California, then they live in the United States.
3. Hassan lives in San Francisco.
4. Therefore, Hassan lives in the United States.

Getting to the Premises

The first step in understanding an argument is to identify the conclusion. Ask yourself what you think the main point or main idea is. Can you identify a thesis? Sometimes identifying the conclusion may involve a little bit of "mind reading." You may have to ask yourself "What is this person trying to make me accept?" The arguer may use words that indicate a conclusion—for example, "therefore" or "hence" (see Table 5.1). After you have identified the conclusion, try to summarize it as well as you can. Then, identify the premises or evidence the arguer offers in support of that conclusion. Once again, identifying reasons can be tricky and might involve more mind reading because arguers don't always explicitly state all of their reasons. Attempt to identify what you think the arguer wants you to accept as evidence. Sometimes arguers also use words that indicate that reasons or premises are being offered. In presenting evidence, people might use terms such as "*because* of" or "since" (see Table 5.1). Lastly, if it is difficult to first identify the conclusion of an argument, you may have to begin by parsing the evidence to then figure out the conclusion.

Conclusion indicator words and phrases	therefore, hence, so, thus, consequently, accordingly, as a result, it follows that, it entails that, we can conclude, for this reason, it must be that, it has to be that
Premise indicator words and phrases	given that, since, because, for, in that, for the reason that, in as much as, as indicated by, seeing how, seeing that, it follows from, owing to, it may be inferred from

TABLE 5.1 Navigating an Argument

Understanding evidence types can help you identify the premises being advanced for a conclusion. As discussed earlier in the chapter, philosophers will often offer definitions or conceptual claims in their arguments. For example, a premise may contain the conceptual claim that "The idea of God includes perfection." Arguments can also contain as premises empirical evidence or information about the world gleaned through the senses. Principles are also used as premises in arguments. A principle is a general rule or law. Principles are as varied as fields of study and can exist in any domain. For example, "Do not use people merely as a means to an end" is an ethical principle.

CONNECTIONS

See the introduction to philosopher chapter to learn more about conceptual analysis.

The Difference between Truth and Logic

Analysis of arguments ought to take place on the levels of both truth *and* logic. **Truth analysis** is the determination of whether statements are correct or accurate. On the other hand, **logical analysis** ascertains whether the premises of an argument support the conclusion.

Often, people focus solely on the truth of an argument, but in philosophy logical analysis is often treated as primary. One reason for this focus is that philosophy deals with subjects in which it is difficult to determine the truth: the nature of reality, the existence of God, or the demands of morality. Philosophers use logic and inference to get closer to the truth on these subjects, and they assume that an inconsistency in a position is evidence against its truth.

Logical Analysis

Because logic is the study of reasoning, logical analysis involves assessing reasoning. Sometimes an argument with a false conclusion uses good reasoning. Similarly, arguments with true conclusions can use terrible reasoning. Consider the following absurd argument:

1. The battle of Hastings occurred in 1066.
2. Tamaracks are deciduous conifer trees.
3. Therefore, Paris is the capital of France.

The premises of the above argument are true, as is the conclusion. However, the argument is illogical because the premises do not support the conclusion. Indeed, the premises are unrelated to each other and to the conclusion. More specifically, the argument does not contain a clear **inference** or evidence of reasoning. An inference is a reasoning process that leads from one idea to another, through which we formulate conclusions. So in an argument, an inference is the movement from the premises to the conclusion, where the former provide support for the latter. The above argument does not contain a clear inference because it is uncertain how we are supposed to cognitively move from the premises to the conclusion. Neither the truth nor the falsity of the premises helps us reason toward the truth of the conclusion. Here is another absurd argument:

1. If the moon is made of cheese, then mice vacation there.
2. The moon is made of cheese.
3. Therefore, mice vacation on the moon.

The premises of the above argument are false, as is the conclusion. However, the argument has strong reasoning because it contains a good inference. If the premises are true, then the conclusion does follow. Indeed, the argument uses a particular kind of inference—deductive inference—and good a deductive inference *guarantees* the truth of its conclusion as long as its premises are true.

The important thing to remember is that a good inference involves clear steps by which we can move from premise to premise to reach a conclusion. The basic method for testing the two common types of inferences—deductive and inductive—is to provisionally assume that their premises are true. Assuming a neutral stance in considering an inference is crucial to doing philosophy. You begin by assuming that the premises are true and then ask whether the conclusion logically follows, given the truth of those premises.

Truth Analysis

If the logic in an argument seems good, you next turn to assessing the truth of the premises. If you disagree with the conclusion or think it untrue, you must look for weaknesses (untruths) in the premises. If the evidence is empirical, check the facts. If the evidence is a principle, ask whether there are exceptions to the principle. If the evidence is a conceptual claim, think critically about whether the conceptual claim can be true, which often involves thinking critically about possible counterexamples to the claim.

5.4 Types of Inferences

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Define deductive, inductive, and abductive inferences.
- Classify inferences as deductive, inductive, or abductive.
- Explain different explanatory virtues used in abductive reasoning.

Inferences can be deductive, inductive, or abductive. Deductive inferences are the strongest because they can guarantee the truth of their conclusions. Inductive inferences are the most widely used, but they do not guarantee the truth and instead deliver conclusions that are probably true. Abductive inferences also deal in probability.

Deductive Reasoning

Deductive inferences, which are inferences arrived at through deduction (deductive reasoning), can guarantee truth because they focus on the structure of arguments. Here is an example:

1. Either you can go to the movies tonight, or you can go to the party tomorrow.
2. You cannot go to the movies tonight.

3. So, you can go to the party tomorrow.

This argument is good, and you probably knew it was good even without thinking too much about it. The argument uses "or," which means that at least one of the two statements joined by the "or" must be true. If you find out that one of the two statements joined by "or" is false, you *know* that the other statement is true by using deduction. Notice that this inference works no matter what the statements are. Take a look at the structure of this form of reasoning:

1. X or Y is true.
2. X is not true.
3. Therefore, Y is true.

By replacing the statements with variables, we get to the *form* of the initial argument above. No matter what statements you replace X and Y with, if those statements are true, then the conclusion must be true as well. This common argument form is called a disjunctive syllogism.

Valid Deductive Inferences

A good deductive inference is called a **valid inference**, meaning its structure guarantees the truth of its conclusion given the truth of the premises. Pay attention to this definition. The definition does not say that valid arguments *have* true conclusions. Validity is a property of the logical forms of arguments, and remember that logic and truth are distinct. The definition states that valid arguments have a form such that *if* the premises are true, then the conclusion must be true. You can test a deductive inference's validity by testing whether the premises lead to the conclusion. If it is impossible for the conclusion to be false when the premises are assumed to be true, then the argument is valid.

Deductive reasoning can use a number of valid argument structures:

Disjunctive Syllogism:

1. X or Y.
2. Not Y.
3. Therefore X.

Modus Ponens:

1. If X, then Y.
2. X.
3. Therefore Y.

Modus Tollens:

1. If X, then Y.
2. Not Y.
3. Therefore, not X.

You saw the first form, disjunctive syllogism, in the previous example. The second form, modus ponens, uses a conditional, and if you think about necessary and sufficient conditions already discussed, then the validity of this inference becomes apparent. The conditional in premise 1 expresses that X is sufficient for Y. So if X is true, then Y must be true. And premise 2 states that X is true. So the conclusion (the truth of Y) necessarily follows. You can also use your knowledge of necessary and sufficient conditions to understand the last form, modus tollens. Remember, in a conditional, the consequent is the necessary condition. So Y is necessary for X. But premise 2 states that Y is *not* true. Because Y must be the case if X is the case, and we are told that Y is false, then we know that X is also false. These three examples are only a few of the numerous possible valid inferences.

Invalid Deductive Inferences

A bad deductive inference is called an **invalid inference**. In invalid inferences, their structure does not guarantee the truth of the conclusion—that is to say, even if the premises are true, the conclusion *may* be false. This does not mean that the conclusion *must* be false, but that we simply cannot know whether the conclusion is true or false. Here is an example of an invalid inference:

1. If it snows more than three inches, the schools are mandated to close.
2. The schools closed.
3. Therefore, it snowed more than three inches.

If the premises of this argument are true (and we assume they are), it may or may not have snowed more than three inches. Schools close for many reasons besides snow. Perhaps the school district experienced a power outage or a hurricane warning was issued for the area. Again, you can use your knowledge of necessary and sufficient conditions to understand why this form is invalid. Premise 2 claims that the necessary condition is the case. But the truth of the necessary condition does not guarantee that the sufficient condition is true. The conditional states that the closing of schools is guaranteed when it has snowed more than 3 inches, *not* that snow of more than 3 inches is guaranteed if the schools are closed.

Invalid deductive inferences can also take general forms. Here are two common invalid inference forms:

Affirming the Consequent:

1. If X, then Y.
2. Y.
3. Therefore, X.

Denying the Antecedent:

1. If X, then Y.
2. Not X.
3. Therefore, not Y.

You saw the first form, affirming the consequent, in the previous example concerning school closures. The fallacy is so called because the truth of the consequent (the necessary condition) is affirmed to infer the truth of the antecedent statement. The second form, denying the antecedent, occurs when the truth of the antecedent statement is denied to infer that the consequent is false. Your knowledge of sufficiency will help you understand why this inference is invalid. The truth of the antecedent (the sufficient condition) is only enough to know the truth of the consequent. But there may be more than one way for the consequent to be true, which means that the falsity of the sufficient condition does not guarantee that the consequent is false. Going back to an earlier example, that a creature is not a dog does not let you infer that it is not a mammal, even though being a dog is sufficient for being a mammal. Watch the video below for further examples of conditional reasoning. See if you can figure out which incorrect selection is structurally identical to affirming the consequent or denying the antecedent.

VIDEO

The Wason Selection Task

Click to view content (https://openstax.org/books/introduction-philosophy/pages/5-4-types-of-inferences)

Testing Deductive Inferences

Earlier it was explained that logical analysis involves assuming the premises of an argument are true and then determining whether the conclusion logically follows, given the truth of those premises. For deductive arguments, if you can come up with a scenario where the premises are true but the conclusion is false, you have proven that the argument is invalid. An instance of a deductive argument where the premises are all true

but the conclusion false is called a counterexample. As with counterexamples to statements, counterexamples to arguments are simply instances that *run counter to* the argument. Counterexamples to statements show that the statement is false, while counterexamples to deductive arguments show that the argument is invalid. Complete the exercise below to get a better understanding of coming up with counterexamples to prove invalidity.

THINK LIKE A PHILOSOPHER

Using the sample arguments given, come up with a counterexample to prove that the argument is invalid. A counterexample is a scenario in which the premises are true but the conclusion is false. Solutions are provided below.

Argument 1:

1. If an animal is a dog, then it is a mammal.
2. Charlie is not a dog.
3. Therefore, Charlie is not a mammal.

Argument 2:

1. All desserts are sweet foods.
2. Some sweet foods are low fat.
3. So all desserts are low fat.

Argument 3:

1. If Jad doesn't finish his homework on time, he won't go to the party.
2. Jad doesn't go to the party.
3. Jad didn't finish his homework on time.

When you have completed your work on the three arguments, check your answers against the solutions below.

Solution 1: Invalid. If you imagine that Charlie is a cat (or other animal that is not a dog but is a mammal), then both the premises are true, while the conclusion is false. Charlie is not a dog, but Charlie *is* a mammal.

Solution 2: Invalid. Buttercream cake is a counterexample. Buttercream cake is a dessert and is sweet, which shows that not all desserts are low fat.

Solution3: Invalid. Assuming the first two premises are true, you can still imagine that Jad is too tired after finishing his homework and decides not to go to the party, thus making the conclusion false.

Inductive Inferences

When we reason inductively, we gather evidence using our experience of the world and draw general conclusions based on that experience. **Inductive** reasoning (induction) is also the process by which we *use* general beliefs we have about the world to create beliefs about our particular experiences or about what to expect in the future. Someone can use their past experiences of eating beets and absolutely hating them to conclude that they do not like beets of any kind, cooked in any manner. They can then use this conclusion to avoid ordering a beet salad at a restaurant because they have good reason to believe they will not like it. Because of the nature of experience and inductive inference, this method can never guarantee the truth of our beliefs. At best, inductive inference generates only probable true conclusions because it goes beyond the information contained in the premises. In the example, past experience with beets is concrete information, but the person goes beyond that information when making the general claim that they will dislike all beets (even those varieties they've never tasted and even methods of preparing beets they've never tried).

Consider a belief as certain as "the sun will rise tomorrow." The Scottish philosopher David Hume famously argued against the certainty of this belief nearly three centuries ago ([1748, 1777] 2011, IV, i). Yes, the sun has risen every morning of recorded history (in truth, we have witnessed what appears to be the sun rising, which is a result of the earth spinning on its axis and creating the phenomenon of night and day). We have the science to explain why the sun will continue to rise (because the earth's rotation is a stable phenomenon). Based on the current science, we can reasonably conclude that the sun will rise tomorrow morning. But *is this proposition certain*? To answer this question, you have to think like a philosopher, which involves thinking critically about alternative possibilities. Say the earth gets hit by a massive asteroid that destroys it, or the sun explodes into a supernova that encompasses the inner planets and incinerates them. These events are extremely unlikely to occur, although no contradiction arises in imagining that they could take place. We believe the sun will rise tomorrow, and we have good reason for this belief, but the sun's rising is still only probable (even if it is nearly certain).

While inductive inferences are not always a sure thing, they can still be quite reliable. In fact, a good deal of what we think we know is known through induction. Moreover, while deductive reasoning can guarantee the truth of conclusions if the premises are true, many times the premises themselves of deductive arguments are inductively known. In studying philosophy, we need to get used to the possibility that our inductively derived beliefs could be wrong.

There are several types of inductive inferences, but for the sake of brevity, this section will cover the three most common types: reasoning from specific instances to generalities, reasoning from generalities to specific instances, and reasoning from the past to the future.

Reasoning from Specific Instances to Generalities

Perhaps I experience several instances of some phenomenon, and I notice that all instances share a similar feature. For example, I have noticed that every year, around the second week of March, the red-winged blackbirds return from wherever they've wintering. So I can conclude that generally the red-winged blackbirds return to the area where I live (and observe them) in the second week of March. All my evidence is gathered from particular instances, but my conclusion is a general one. Here is the pattern:

$$\text{Instance}_1, \text{Instance}_2, \text{Instance}_3 \ldots \text{Instance}_n \text{ --> Generalization}$$

And because each instance serves as a reason in support of the generalization, the instances are premises in the argument form of this type of inductive inference:

Specific to General Inductive Argument Form:

1. Instance_1
2. Instance_2
3. Instance_3
4. General Conclusion

Reasoning from Generalities to Specific Instances

Induction can work in the opposite direction as well: reasoning from accepted generalizations to specific instances. This feature of induction relies on the fact that we are learners and that we learn from past experiences and from one another. Much of what we learn is captured in generalizations. You have probably accepted many generalizations from your parents, teachers, and peers. You probably believe that a red "STOP" sign on the road means that when you are driving and see this sign, you must bring your car to a full stop. You also probably believe that water freezes at 32° Fahrenheit and that smoking cigarettes is bad for you. When you use accepted generalizations to predict or explain things about the world, you are using induction. For example, when you see that the nighttime low is predicted to be 30°F, you may surmise that the water in your birdbath will be frozen when you get up in the morning.

Some thought processes use more than one type of inductive inference. Take the following example:

> Every cat I have ever petted doesn't tolerate its tail being pulled.
>
> So this cat probably will not tolerate having its tail pulled.

Notice that this reasoner has gone through a series of instances to make an inference about one additional instance. In doing so, the reasoner implicitly assumed a generalization along the way. The reasoner's implicit generalization is that no cat likes its tail being pulled. They then use that generalization to determine that they shouldn't pull the tail of the cat in front of them now. A reasoner can use several instances in their experience as premises to draw a general conclusion and then use that generalization as a premise to draw a conclusion about a specific new instance.

Inductive reasoning finds its way into everyday expressions, such as "Where there is smoke, there is fire." When people see smoke, they intuitively come to believe that there is fire. This is the result of inductive reasoning. Consider your own thought process as you examine Figure 5.5.

FIGURE 5.5 "Where there is smoke, there is fire" is an example of inductive reasoning. (credit: "20140803-FS-UNK-0017" by US Department of Agriculture/Flickr, CC BY 2.0)

Reasoning from Past to Future

We often use inductive reasoning to predict what will happen in the future. Based on our ample experience of the past, we have a basis for prediction. Reasoning from the past to the future is similar to reasoning from specific instances to generalities. We have experience of events across time, we notice patterns concerning the occurrence of those events at particular times, and then we reason that the event will happen again in the future. For example:

> I see my neighbor walking her dog every morning. So my neighbor will probably walk her dog this morning.

Could the person reasoning this way be wrong? Yes—the neighbor could be sick, or the dog could be at the vet. But depending upon the regularity of the morning dog walks and on the number of instances (say the neighbor has walked the dog every morning for the past year), the inference could be strong in spite of the fact that it is possible for it to be wrong.

Strong Inductive Inferences

The strength of inductive inferences depends upon the reliability of premises given as evidence and their relation to the conclusions drawn. A *strong* inductive inference is one where, if the evidence offered is true, then the conclusion is probably true. A *weak* inductive inference is one where, if the evidence offered is true,

the conclusion is not probably true. But just how strong an inference needs to be to be considered good is context dependent. The word "probably" is vague. If something is more probable than not, then it needs at least a 51 percent chance of happening. However, in most instances, we would expect to have a much higher probability bar to consider an inference to be strong. As an example of this context dependence, compare the probability accepted as strong in gambling to the much higher probability of accuracy we expect in determining guilt in a court of law.

Figure 5.6 illustrates three forms of reasoning are used in the scientific method. Induction is used to glean patterns and generalizations, from which hypotheses are made. Hypotheses are tested, and if they remain unfalsified, induction is used again to assume support for the hypothesis.

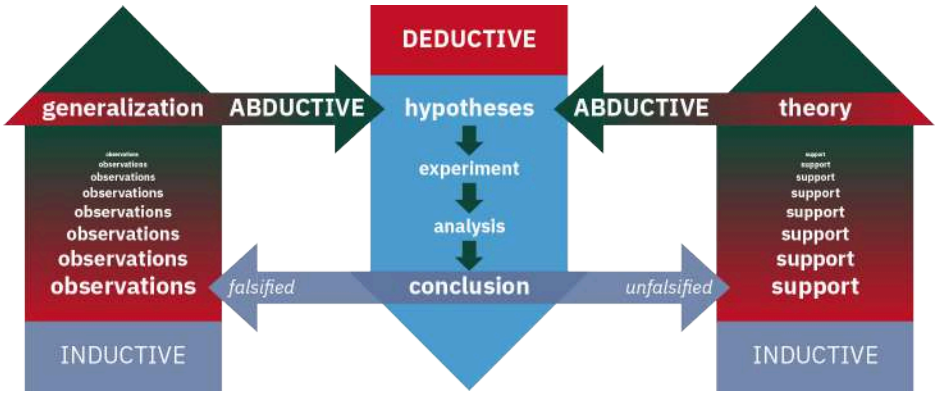

FIGURE 5.6 Induction in the Scientific Method (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

Abductive Reasoning

Abductive reasoning is similar to inductive reasoning in that both forms of inference are probabilistic. However, they differ in the relationship of the premises to the conclusion. In inductive argumentation, the evidence in the premises is used to justify the conclusion. In **abductive** reasoning, the conclusion is meant to explain the evidence offered in the premises. In induction the premises explain the conclusion, but in abduction the conclusion explains the premises.

Inference to the Best Explanation

Because abduction reasons from evidence to the most likely explanation for that evidence, it is often called "inference to the best explanation." We start with a set of data and attempt to come up with some unifying hypothesis that can best explain the existence of those data. Given this structure, the evidence to be explained is usually accepted as true by all parties involved. The focus is not the truth of the evidence, but rather what the evidence means.

Although you may not be aware, you regularly use this form of reasoning. Let us say your car won't start, and the engine won't even turn over. Furthermore, you notice that the radio and display lights are not on, even when the key is in and turned to the ON position. Given this evidence, you conclude that the best explanation is that there is a problem with the battery (either it is not connected or is dead). Or perhaps you made pumpkin bread in the morning, but it is not on the counter where you left it when you get home. There are crumbs on the floor, and the bag it was in is also on the floor, torn to shreds. You own a dog who was inside all day. The dog in question is on the couch, head hanging low, ears back, avoiding eye contact. Given the evidence, you conclude that the best explanation for the missing bread is that the dog ate it.

Detectives and forensic investigators use abduction to come up with the best explanation for how a crime was committed and by whom. This form of reasoning is also indispensable to scientists who use observations (evidence) along with accepted hypotheses to create new hypotheses for testing. You may also recognize abduction as a form of reasoning used in medical diagnoses. A doctor considers all your symptoms and any

further evidence gathered from preliminarily tests and reasons to the best possible conclusion (a diagnosis) for your illness.

Explanatory Virtues

Good abductive inferences share certain features. **Explanatory virtues** are aspects of an explanation that generally make it strong. There are many explanatory virtues, but we will focus on four. A good hypothesis should be *explanatory, simple*, and *conservative* and must have *depth*.

To say that a hypothesis must be *explanatory* simply means that it must explain *all* the available evidence. The word "explanatory" for our purposes is being used in a narrower sense than used in everyday language. Take the pumpkin bread example: a person might reason that perhaps their roommate ate the loaf of pumpkin bread. However, such an explanation would not explain why the crumbs and bag were on the floor, nor the guilty posture of the dog. People do not normally eat an entire loaf of pumpkin bread, and if they do, they don't eviscerate the bag while doing so, and even if they did, they'd probably hide the evidence. Thus, the explanation that your roommate ate the bread isn't as explanatory as the one that pinpoints your dog as the culprit.

But what if you reason that a different dog got into the house and ate the bread, then got out again, and your dog looks guilty because he did nothing to stop the intruder? This explanation seems to explain the missing bread, but it is not as good as the simpler explanation that your dog is the perpetrator. A good explanation is often *simple*. You may have heard of *Occam's razor*, formulated by William of Ockham (1287–1347), which says that the simplest explanation is the best explanation. Ockham said that "entities should not be multiplied beyond necessity" (Spade & Panaccio 2019). By "entities," Ockham meant concepts or mechanisms or moving parts.

Examples of explanations that lack simplicity abound. For example, conspiracy theories present the very opposite of simplicity since such explanations are by their very nature complex. Conspiracy theories *must* posit plots, underhanded dealings, cover-ups (to explain the existence of alternative evidence), and maniacal people to explain phenomena and to further explain away the simpler explanation for those phenomena. Conspiracy theories are never simple, but that is not the only reason they are suspect. Conspiracy theories also generally lack the virtues of being *conservative* and having *depth*.

A *conservative* explanation maintains or *conserves* much of what we already believe. Conservativeness in science is when a theory or hypothesis fits with other established scientific theories and explanations. For example, a theory that accounts for some physical phenomenon but also does not violate Newton's first law of motion is an example of a conservative theory. On the other hand, consider the conspiracy theory that we never landed on the moon. Someone might posit that the televised Apollo 11 space landing was filmed in a secret studio somewhere. But the reality of the first televised moon landing is not the only belief we must get rid of to maintain the theory. Five more manned moon landings occurred. Furthermore, the reality of the moon landings fits into beliefs about technological advancement over the next five decades. Many of the technologies developed were later adopted by the military and private sector (NASA, n.d.). Moreover, the Apollo missions are a key factor in understanding the space race of the Cold War era. Accepting the conspiracy theory requires rejecting a wide range of beliefs, and so the theory is not conservative.

A conspiracy theorist may offer alternative explanations to account for the tension between their explanation and established beliefs. However, for each explanation the conspiracist offers, more questions are raised. And a good explanation should not raise more questions than it answers. This characteristic is the virtue of *depth*. A deep explanation avoids *unexplained explainers,* or an explanation that itself is in need of explanation. For example, the theorist might claim that John Glenn and the other astronauts were brainwashed to explain the astronauts' firsthand accounts. But this claim raises a question about how brainwashing works. Furthermore, what about the accounts of the thousands of other personnel who worked on the project? Were they all brainwashed? And if so, how? The conspiracy theorist's explanation raises more questions than it answers.

Extraordinary Claims Require Extraordinary Evidence

Is it possible that our established beliefs (or scientific theories) could be wrong? Why give precedence to an explanation because it upholds our beliefs? Scientific thought would never have advanced if we deferred to conservative explanations all the time. In fact, the explanatory virtues are not laws but rules of thumb, none of which are supreme or necessary. Sometimes the correct explanation is more complicated, and sometimes the correct explanation will require that we give up long-held beliefs. Novel and revolutionary explanations can be strong if they have evidence to back them up. In the sciences, this approach is expressed in the following principle: *Extraordinary claims will require extraordinary evidence.* In other words, a novel claim that disrupts accepted knowledge will need more evidence to make it credible than a claim that already aligns with accepted knowledge.

Table 5.2 summarizes the three types of inferences just discussed.

Type of inference	Description	Considerations	
Deductive	Focuses on the structure of arguments	Provides valid inferences when its structure guarantees the truth of its conclusion	Provides invalid inferences when, even if the premises are true, the conclusion may be false
Inductive	Uses general beliefs about the world to create beliefs about specific experiences or to make predictions about future experiences	Strong if the conclusion is probably true, assuming that the evidence is true	Weak if the conclusion is probably not true, even if the evidence offered is true
Abductive	An explanation is offered to justify and explain evidence	Strong if it is explanatory, simple, conservative, and has depth	Extraordinary claims require extraordinary evidence

TABLE 5.2 Three Types of Inferences

5.5 Informal Fallacies

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Explain the four general categories of informal fallacies.
- Classify fallacies by general category.
- Identify fallacies in ordinary language.

Reasoning can go wrong in many ways. When the form of an argument is problematic, it is called a *formal* **fallacy**. Mistakes in reasoning are not usually caused by the structure of the argument. Rather, there is usually a problem in the relationship between the evidence given in the premises and the conclusion. Take the following example:

> I don't think Ms. Timmons will make a good mayor. I've got a bad feeling about her. And I've heard she's not a Christian. Furthermore, the last time we had a female mayor, the city nearly went bankrupt. Don't vote for Ms. Timmons.

Notice that to assess the above argument, you have must think about whether the reasons offered function *as evidence* for the conclusion that Ms. Timmons would be a bad mayor. This assessment requires background knowledge about the world. Does belonging to a specific religion have any bearing on one's qualification for mayor? Is there any credible connection between a mayor's gender and the likelihood that person will cause a

bankruptcy? If the reasons are not adequate support for the conclusion, then the reasoner commits an informal fallacy. In the above argument, none of the reasons offered support for the conclusion. In fact, each reason commits a different fallacy. The first reason is based on an appeal to emotion, which is not relevant. The second reason points to a characteristic (religion) that is irrelevant in judging competency, and the third reason creates a spurious connection between the candidate and a previous female mayor, putting them both in the same failed category based solely on the fact that they share the same gender.

There are many specific *types* of informal fallacies, but most can be sorted into four general *categories* according to how the reasoning fails. These categories show how reasoning can go wrong and serve as warnings for what to watch out for in arguments. They are (1) fallacies of relevance, (2) fallacies of weak induction, (3) fallacies of unwarranted assumption, and (4) fallacies of diversion.

CONNECTIONS

See the chapter on critical thinking, research, reading, and writing to learn more about overcoming biases.

Fallacies of Relevance

In **fallacies of relevance**, the arguer presents evidence that is not relevant for logically establishing their conclusion. The reason why fallacies of relevance stick around is because the evidence *seems* relevant—meaning it *feels* relevant. Fallacies of relevance prey on our likes and dislikes. Indeed, the very first fallacy of relevance is called "appeal to emotion."

Appeal to Emotion

Emotional appeals can target any number of emotions—from fear to pity and from love and compassion to hate and aversion. For the most part, appeals to emotion of any kind are not relevant for establishing the conclusion. Here's an example:

> I know the allegations against the governor seem serious. However, he's in his 80s now, and he fought for our country in the Korean War, earning a Purple Heart. We don't want to put an elderly veteran through the ordeal of a trial. I urge you to drop the charges.

In this example, the arguer appeals to our feelings of pity and compassion and to our positive feelings about the governor. We might admire the governor for his military service and feel sympathy for his advanced age. But are our feelings relevant in making the decision about whether to drop criminal charges? Notice that the arguer says nothing about the content of the charges or about whether the governor is innocent or guilty. Indeed, the arguer says absolutely nothing *that's relevant to the conclusion*. How we feel about somebody is not a logical determinant to use in judging guilt or innocence.

Ad Hominem Attacks

The **ad hominem attack** is most often committed by a person who is arguing *against* some other person's position. "Ad hominem" in Latin means "toward the man." It is so named because when someone commits this fallacy, the reasons they give for their conclusion concern the characteristics of the person they are arguing against rather than that person's position. For example, the arguer may verbally attack the person by making fun of their appearance, intelligence, or character; they can highlight something about the person's circumstances like their job or past; or they can insinuate that the person is a hypocrite.

You may wonder why such arguments are effective, and one reason is sloppy associative reasoning, wherein we problematically assume that characteristics held by an arguer will be transferred to their argument. Another related reason is that too often we allow ourselves to be ruled by emotion rather than reason. If we are made to feel negatively toward a person, those feelings can cloud assessment of their arguments. Consider the following example:

> My fellow councilwoman has argued for the city solar project. But what she failed to mention was that

> she has been arrested twice—once for protesting during the Vietnam War and another time for protesting the 2003 invasion of Iraq. She's a traitor and a liar. Any project she espouses is bad for the city.

This is clearly an ad hominem attack. The arguer wants to undermine the councilwoman's position by making us feel negatively toward her. The fact that a person engaged in protests in the past has no bearing on their arguments for an energy project. Furthermore, the arguer goes on to call the councilwoman a *traitor* and a *liar* and offers no evidence. Attaching negative labels to people is one way to manipulate an audience's emotions.

There are other types of ad hominem attacks, and the most successful is probably the one called *tu quoque*, which means "you too" in Latin. When someone commits a *tu quoque* ad hominem fallacy, they attempt to undermine a person's argument by pointing to real or perceived hypocrisy on the part of the person. They assert or imply that their opponent, in the past or currently, has done or said things that are inconsistent with their current argument. Often *tu quoque* is used as a defensive maneuver. Take the example of a teenager whose father just caught her smoking cigarettes and reprimanded her. If she knows that her father smoked when he was her age, her defensive response will be "You did it too!" She is likely to think he is a hypocrite who should not be heeded. However, the daughter reasons poorly. First, a person's actions have no bearing on the strength of their arguments or the truth of their claims (unless, of course, the person's arguments are about their own actions). That her father smoked in the past (or smokes currently) has no bearing on whether smoking is in fact dangerous. Smoking does not suddenly cease to be dangerous because the person explaining the dangers of smoking is a smoker.

You might think, however, that we should not trust the reasoning of hypocrites because hypocrisy is a sign of untrustworthiness, and untrustworthy people often say false things. But remember that there is a difference between a truth analysis and a logical analysis. *If* smoking has bad consequences on health and development, *then* that counts as a good reason for the father to not allow his daughter to smoke. But interestingly, some cases of perceived hypocrisy make the supposed hypocrite more trustworthy rather than less. And the smoking example is one such case. Of all the people who might be able to speak of the dangers of picking up a smoking habit at a young age, the father, who became addicted to cigarettes in his teenage years, is a good source. He speaks from experience, which is a second reason the daughter reasons incorrectly in thinking she should not listen to him because he was or is a smoker.

Let's take a different scenario. Suppose a married person argues that it is immoral to cheat on one's spouse, but you know he has a mistress. As much as you may hate it, his status as a cheater is not relevant to assessing his argument. You might infer from his hypocrisy that he does not believe his own arguments or perhaps that he suffers guilt about his actions but cannot control his cheating behavior. Nonetheless, whatever the cheater believes or feels is simply *not relevant to determining whether his argument is good*. To think that whether a person believes an argument affects the truth of that argument is tantamount to thinking that if you believe X, the belief itself is more likely to make X happen or make X true. But such an approach is magical thinking, not logic or reason.

Fallacies of Weak Induction

The **fallacies of weak induction** are mistakes in reasoning in which a person's evidence or reasons are too weak to firmly establish a conclusion. The reasoner uses relevant premises, but the evidence contained therein is weak or defective in some way. These errors are errors of induction. When we inductively reason, we gather evidence using our experience in the world and draw conclusions based on that experience. Earlier in the chapter I used a generalization about the return of the red-winged blackbirds in March. But what if I based my generalization on just two years of experience? Now my conclusion—that the blackbirds return every mid-March—seems much weaker. In such cases, the reasoner uses induction properly by using relevant evidence, but her evidence is simply too weak to support the generalization she makes. An inductive inference may also be weak because it too narrowly focuses on one type of evidence, or the inference may apply to a generalization in the wrong way.

Hasty Generalization

A **hasty generalization** is a fallacy of weak induction in which a person draws a conclusion using too little evidence to support the conclusion. A hasty generalization was made in the red-winged blackbird case above. Here is another example:

> Don't eat at the restaurant. It's bad. I had lunch there once, and it was awful. Another time I had dinner, and the portions were too small.

This person draws the conclusion that the restaurant is bad from two instances of eating there. But two instances are not enough to support such a robust conclusion. Consider another example:

> Sixty-five percent of a random poll of 50 registered voters in the state said they would vote for the amendment. We conclude that the state amendment will pass.

Fifty voters is not a large enough sample size to draw predictive conclusions about an election. So to say the amendment will pass based on such limited evidence is a hasty generalization. Just how much evidence we need to support a generalization depends upon the conclusion being made. If we already have good reason to believe that the class of entities that is the subject of our generalization are all very similar, then we will not need a very large sample size to make a reliable generalization. For instance, physics tells us that electrons are very similar, so a study drawn from observing just a few electrons may be reasonable. Humans (particularly their political beliefs and behaviors) are not the same, so a much larger sample size is needed to determine political behavior. The fallacy of hasty generalization highlights the empirical nature of induction—we need a basic understanding of the world to know exactly how much evidence is needed to support many of our claims.

Biased Sample

A biased sample has some things in common with a hasty generalization. Consider the following:

> Don't eat dinner at that restaurant. It's bad. My book club has met there once a week for breakfast for the past year, and they overcook their eggs.

This seems much better than the restaurant example offered above. If the book club has gone to the restaurant once per week for a year, the arguer has more than 50 instances as data. However, notice that the arguer's evidence concerns *breakfast*, not dinner, and focuses on the eggs. Suppose the restaurant has an entirely different, more expensive dinner menu; then we cannot draw reliable conclusions about the restaurant's success at dinner. This is an example of a **biased sample**. With a hasty generalization, the problem is that not enough evidence is used. In a biased sample, the problem is that the evidence used is biased in some way.

Appeal to Ignorance

Appeal to ignorance is another type of fallacy of weak induction. Consider the following line of reasoning:

> In my philosophy class, we reviewed all the traditional arguments for the existence of God. All of them have problems. Because no one can prove that God exists, we can only conclude that God doesn't exist.

Notice that the arguer wants to conclude that because we do not have evidence or sufficient arguments for God's existence, then God cannot exist. In an appeal to ignorance, the reasoner relies on the lack of knowledge or evidence for a thing (our ignorance of it) to draw a definite conclusion about that thing. But in many cases, this simply does not work. The same reasoning can be used to assert that God must exist:

> In my philosophy class, we reviewed different arguments against the existence of God. All of them have problems. Because no one can prove that God doesn't exist, we can only conclude that God exists.

Any form of reasoning that allows you to draw contradictory conclusions ought to be suspect. Appeals to ignorance ignore the idea that absence of evidence is not evidence of absence. The fact that we lack evidence for X should not always function *as evidence* that X is false or does not exist.

False Cause Attribution

The fallacy of **false cause** occurs when a causal relation is assumed to exist between two events or things when it is unlikely that such a causal relationship exists. People often make this mistake when the two events occur together. The phrase "correlation does not equal causation" captures a common critique of this form of false cause reasoning. For example, a person may think that swimsuits cause sunburns because people often get sunburned when wearing swimsuits. There is a correlation between sunburn and swimsuits, but the suits are not a cause of sunburns.

False cause fallacies also occur when a person believes that just because one event occurs after another, the first event is the cause of the second one. This poor form of reasoning, in tandem with confirmation bias, leads to many superstitious beliefs. Confirmation bias is the natural tendency to look for, interpret, or recall information that confirms already-established beliefs or values. For example, some sports fans may notice that their team won sometimes on days when they were wearing a specific item of clothing. They may come to believe that this clothing item is "lucky." Furthermore, because of confirmation bias, they may remember only instances when the team won when they were wearing that item (and not remember when the team lost when they were also wearing the item). The resulting superstition amounts to believing that wearing a special team jersey somehow *causes* the team to win.

FIGURE 5.7 Correlation Is Not the Same as Causation (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

In short, as emphasized by Figure 5.7, just because two things are often correlated (connected in that they occur together in time or place) does not mean that a cause-and-effect relationship exists between them.

CONNECTIONS

See the chapter on critical thinking, research, reading, and writing to learn more about confirmation bias.

Fallacies of Unwarranted Assumption

Fallacies of unwarranted assumption occur when an argument relies on a piece of information or belief that requires further justification. The category gets its name from the fact that a person *assumes* something *unwarranted* to draw their conclusion. Often the unjustified assumption is only implicit, which can make these types of fallacies difficult to identify.

False Dichotomy

False dichotomy, or "false dilemma," occurs in an argument when a limited number of possibilities are assumed to be the only available options. In the classic variation, the arguer offers two possibilities, shows that the one cannot be true, and then deduces that the other possibility must be true. Here is the form:

1. Either A or B must be true.
2. A is not true.
3. Therefore, B is true.

The form itself looks like a good argument—a form of disjunctive syllogism. But a false dichotomy is an *informal* fallacy, and such errors depend upon the content of arguments (their meaning and relation to the world) rather than the form. The problematic assumption occurs in premise 1, where it is assumed that A and B are the *only* options. Here is a concrete example:

> A citizen of the United States either loves their country, or they are a traitor. Since you don't love your country, you are a traitor.

The above argument assumes that loving the United States or being a traitor are the only two possible options for American citizens. The argument assumes these options are mutually exclusive (you cannot be both) and jointly exhaustive (you must be one or the other). But this position requires justification. For example, a person can have mixed emotions about their country and *not* be a traitor. False dichotomy is poor reasoning because it artificially limits the available options and then uses this artificial limitation to attempt to prove some conclusion. A false dichotomy may include more than two options. The important thing to remember is a false dichotomy limits options in an argument without justification when there is reason to think there are more options.

Begging the Question

Begging the question occurs when an arguer either assumes the truth of the conclusion they aim to prove in the course of trying to prove it or when an arguer assumes the truth of a contentious claim in their argument. When the former happens, it is sometimes called *circular reasoning*. Here is an example:

1. The Bible states that God exists.
2. The Bible is true because it is divinely inspired.
3. Therefore, God exists.

The problematic assumption occurs in premise 2. To say the Bible is "divinely inspired" is to say that it *is the word of God*. But the argument aims to prove that God exists. So premise 2 assumes that God exists in order to prove God exists. This is patently circular reasoning. The name "begging the question" is confusing to some students. One way to think about this fallacy is that *the question* is whatever is at issue in a debate or argument. Here the question is "Does God exist?" To "beg" the question means to assume you already know the answer. The above argument assumes the answer to the question it is supposed to answer.

The name "begging the question" makes more sense for the second form of the fallacy. When a person begs the question in the second sense, they assume the truth of something controversial while trying to prove their conclusion. Here is an example you might be familiar with:

1. The intentional killing of an innocent person is murder.
2. Abortion is the intentional killing of an innocent person.
3. Therefore, abortion is murder.

This is a valid argument. Structurally, it uses good logic. However, the argument is an example of begging the question because of premise 2. Much of the debate over abortion revolves around the question of whether a fetus is a person. But premise 2 simply assumes that a fetus is a person, so the argument *begs the question* "Is a fetus a person?"

Fallacies of Diversion

The final class of informal fallacies is the **fallacy of diversion**, which usually occurs in contexts where there is an opponent or an audience. In this instance, the arguer attempts to distract the attention of the audience away from the argument at hand. Clearly, the tactic of diverting attention implies that there is someone whose attention can be diverted: either an audience, an opponent, or both.

Strawman

Men made of straw can easily be knocked over. Hence, a **strawman** occurs when an arguer presents a weaker

version of the position they are arguing against to make the position easier to defeat. The arguer takes their opponent's argument, repackages it, and defeats this new version of the argument rather than their opponent's actual position. If the audience listening to or reading the argument is not careful, they won't notice this move and believe that the opponent's original position has been defeated. Usually when a strawman is created, the misrepresented position is made more extreme. Here is an example:

> **Senator:** It is important that the path to citizenship be governed by established legal procedure. Granting citizenship to undocumented immigrants who came to this country illegally sets up a dangerous and unfair precedent. It could encourage others to illegally enter the country in hopes that they too can be granted clemency at a later date. We must only reward the status of citizenship to those who followed the laws in coming here.
>
> **Opponent:** Clearly, we can reject the Senator's position, which is obviously anti-immigrant. If he had it his way, we'd never allow any immigration into the country. We are a nation of immigrants, and disallowing people from other countries to join our nation is against everything this nation has stood for historically.

The opponent misrepresents the senator as being wholly anti-immigration and then argues against that manufactured position—a classic strawman move. The senator's original argument focuses narrowly on the question of whether to create a pathway to citizenship for people already in the country who came here illegally. The repackaged argument is much easier to defeat than the senator's actual argument since few people are in favor of not allowing any immigration into the country.

Red Herring

A **red herring** fallacy is like a strawman, except the arguer completely ignores their opponent's position and simply changes the subject. The arguer diverts the attention of the audience to a new subject. A red herring is a smelly smoked fish that was used to train hunting dogs to track smells by dragging this fish along a path as practice. So the fallacy gets its name because it means to trick people into following a different path of reasoning than the one at hand. You may wonder how a person can get away with simply changing the subject. Successful use of the red herring usually involves shifting the subject to something tangentially related. Here is an example:

> My daughter wants me to exercise more. She said she is worried about my health. She showed me research about cardiovascular fitness and its impact on quality of life for people my age and older. She suggested I start biking with her. But bicycles are expensive. And it is dangerous to ride bicycles on a busy road. Furthermore, I do not have a place to store a bicycle.

This arguer first summarizes the daughter's position that they ought to exercise more. But then they take the suggestion of bicycling and veer off topic (getting more exercise) to the feasibility of cycling instead. The comments on bicycling in no way address the daughter's general conclusion that the arguer needs to exercise more. Because the argument changes the subject, it is a red herring.

Table 5.3 summaries these many types of informal fallacies.

General Category	Specific Type	Description
Fallacies of relevance—rely on evidence that is not relevant for logically establishing a conclusion		
	Appeal to emotion	Appeals to feelings (whether positive or negative) rather than discussing the merits of an idea or proposal
	Ad hominem attack	Argues against someone's idea or suggestion by attacking the individual personally, rather than pointing out problems with the idea or suggestion
Fallacies of weak induction—rely on evidence or reasons that are too weak to firmly establish a conclusion		
	Hasty generalization	Draws a conclusion using too little evidence to support the conclusion
	Biased sample	Draws a conclusion using evidence that is biased in some way
	Appeal to ignorance	Relies on the lack of knowledge or evidence for a thing (our ignorance of it) to draw a definite conclusion about that thing
	False cause attribution	A causal relation is assumed to exist between two events or things that are not causally connected; "correlation does not equal causation"
Fallacies of unwarranted assumption—rely on information or beliefs that require further justification		
	False dichotomy	A limited number of possibilities are assumed to be the only available options
	Begging the question	Either assumes the truth of a conclusion in the course of trying to prove it or assumes the truth of a contentious claim
Fallacies of diversion—rely on attempts to distract the attention of the audience away from the argument at hand		
	Strawman	Utilizes a weaker version of the position being argued against in order to make the position easier to defeat
	Red Herring	Ignores the opponent's position and simply changes the subject

TABLE 5.3 Types of Informal Fallacies

Summary

5.1 Philosophical Methods for Discovering Truth

Logic is the study of reasoning and is a key tool for discovering truth in philosophy and other disciplines. Early philosophers used dialectics—reasoned debates with the goal of getting closer to the truth—to practice and develop reason. Dialectics usually start with a question. An interlocuter offers an answer to the question, which is then scrutinized by all participants. Early forms of arguments are evident in written dialogues. Arguments are reasons offered in support of a conclusion. We use logic to test hypotheses in philosophy and other domains. There are laws of logic—the law of noncontradiction and the law of the excluded middle. Laws of logic can be thought of as rules of thought. Logical laws are rules that underlie thinking itself. The rules or laws of logic are normative—they describe how we ought to reason.

5.2 Logical Statements

Logical statements can be conditionals or universal affirmative statements. Both are important since they express the important logical relations (also called "conditions") of necessity and sufficiency. If something is sufficient, it is always sufficient for something else. And if something is necessary, it is always necessary for something else. If you want to prove that a conditional or universal affirmative statement is false (which is to also prove that the necessary and sufficient conditions they express do not hold), then you must offer a counterexample.

5.3 Arguments

An argument is a set of reasons offered in support of a conclusion. The reasons are called premises, and they are meant to logically support the conclusion. Identifying the premises involves critically identifying what is meant to be evidence for the conclusion. Both the premises and conclusion can be indicated by phrases and words. Evaluations of arguments take place on two levels: assessing truth and assessing logic. Logic and truth are separate features of arguments. Logical assessment involves determining whether the truth of the premises do support the conclusion. Logically good arguments contain inferences—a reasoning process that leads from one idea to another, through which we formulate conclusions—where the inference does support the conclusion.

5.4 Types of Inferences

There are three different types of inferences: deductive, inductive, and abductive. Deductive inferences, when valid, guarantee the truth of their conclusions. Inductive inferences, when strong, offer probable support for the conclusion. And good abductive inferences offer probable support for their conclusions. Deductive inferences that cannot guarantee the truth of their conclusions are called invalid. A counterexample can be offered to prove that a deductive inference is invalid. Inductive inferences involve using observations based on experience to draw general conclusions about the world. Abductive inferences involve offering explanations for accepted evidence. Abduction is sometimes called "inference to the best explanation."

5.5 Informal Fallacies

A fallacy is a poor form of reasoning. Fallacies that cannot be reduced to the structure of an argument are called informal fallacies. There are many types of informal fallacies, which can be sorted into four general *categories* according to how the reasoning fails. These categories are fallacies of relevance, fallacies of weak induction, fallacies of unwarranted assumption, and fallacies of diversion. A fallacy of relevance occurs when the arguer presents evidence that is not relevant for logically establishing their conclusion. The fallacies of weak induction occur when the evidence used is relevant but is too weak to support the desired conclusion. The fallacies of unwarranted assumption occur when an argument assumes, as evidence, some reason that requires further justification. The fallacies of diversion occur when the arguer attempts to distract the attention of the audience from the argument at hand.

Key Terms

Abductive having to do with abduction/abductive reasoning. Abduction is probabilistic form of inference in which an explanation is offered to justify and explain evidence.

Ad hominin attack fallacy of relevance that argues against someone's idea or suggestion by attacking the individual personally, rather than pointing out problems with the idea or suggestion.

Appeal to ignorance a fallacy of weak induction that relies on the lack of knowledge or evidence for a thing (our ignorance of it) to draw a definite conclusion about that thing.

Argument a set of reasons offered in support of a conclusion.

Begging the question a fallacy of unwarranted assumption that either assumes the truth of a conclusion in the course of trying to prove it or assumes the truth of a contentious claim.

Biased sample a fallacy of weak induction that draws a conclusion using evidence that is biased in some way.

Conclusion the result of an argument. A conclusion is that which is meant to be proved by the reasoning and premises used in an argument.

Conditional a logical statement that expresses a necessary and a sufficient condition. Conditionals are usually formulated as if–then statements.

Contradiction a statement that is always false. A contradiction is the conjunction of any statement and its negation.

Counterexample an example that proves that either a statement is false or an argument is invalid.

Deductive having to do with deduction/deductive reasoning. Deduction is a form of inference that can guarantee the truth of its conclusions, given the truth of the premises.

Emotional appeal fallacy of relevance that appeals to feelings (whether positive or negative) rather than discussing the merits of an idea or proposal.

Explanatory virtues aspects of an explanation that generally make it strong; four such virtues are that a good hypothesis should be explanatory, simple, and conservative, and have depth.

Fallacy a poor form of reasoning.

Fallacy of diversion a general category of informal fallacies in which an arguer presents evidence that functions to divert the attention of the audience from the current subject of argument.

Fallacy of relevance a general category of informal fallacies in which an arguer relies on reasons that are not relevant for establishing a conclusion.

Fallacy of unwarranted assumption a general category of informal fallacies in which an arguer implicitly or explicitly relies on reasons that require further justification.

Fallacy of weak induction a general category of informal fallacies in which an arguer's evidence or reasons are too weak to firmly establish their conclusion.

False cause fallacy of weak induction in which a causal relation is assumed to exist between two events or things that are not causally connected; "correlation does not equal causation".

False dichotomy a fallacy of unwarranted assumption in which a limited number of possibilities are assumed to be the only available options.

Hasty generalization fallacy of weak induction that draws a conclusion using too little evidence to support the conclusion.

Hypothesis a proposed explanation for an observed process or phenomenon.

Inductive having to do with induction/inductive reasoning. Induction is a probabilistic form of inference in which observation or experience is used to draw conclusions about the world.

Inference a reasoning process that moves from one idea to another, resulting in conclusions.

Invalidity a property of bad deductive inferences. An invalid inference/argument is one in which the truth of the premises does not guarantee the truth of the conclusion.

Law of noncontradiction a logical law that states that contradictory statements/propositions can never be true in the same sense at the same time.

Law of the excluded middle a logical law that states that for any statement, either that statement or its negation is true.

Logical analysis the process of determining whether the logical inferences made in an argument are good. A logical analysis determines whether the premises in an argument logically support the conclusion.

Necessary condition X is a necessary condition for Y if and only if X must be true given the truth of Y. If X is necessary for Y, then X is guaranteed by Y—without the truth of X, Y cannot be true.

Premise evidence or a reason offered in support of a conclusion.

Red herring fallacy of diversion that ignores the opponent's position and simply changes the subject.

Statement a sentence with a truth value—a sentence that must be either true or false.

Strawman fallacy of diversion that utilizes a weaker version of the position being argued against in order to make the position easier to defeat.

Sufficient condition X is a sufficient condition for Y if and only if the truth of X guarantees the truth of Y. If X is sufficient for Y, then the truth of X is enough to prove the truth of Y.

Truth analysis the process of determining whether statements made in an argument are either true or false.

Universal affirmative statement statements that take two groups of things and claim all members of the first group are also members of the second groups.

Validity a property of deductive arguments where the structure of an argument is such that if the premises are true, then the conclusion is guaranteed to be true. A valid inference is a logically good inference.

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Review Questions

5.1 Philosophical Methods for Discovering Truth

1. What is the general structure of a dialectic?
2. What is a statement?
3. Offer an example of a statement and its negation.
4. How does the law of noncontradiction logically imply the law of the excluded middle?

5.2 Logical Statements

5. Offer an example of a conditional, then identify the necessary and sufficient conditions expressed by it.
6. What is a counterexample?
7. Consider the following conditional: "If you walk in the rain, your shirt will get wet." What is a possible counterexample to this statement?
8. Consider the following universal affirmative statement: "All games involve a winner and a loser." What is a counterexample to this statement?

5.3 Arguments

9. What is an argument?
10. What are the key components of an argument?
11. Consider the following argument: "Since Jori is allergic to cats and her apartment complex does not allow dogs, it must be the case that Jori does not have a pet." What are the premises of this argument, and what is the conclusion? What words in the argument indicate the premises and conclusion?
12. Explain the difference between a logical analysis and a truth analysis of an argument.

5.4 Types of Inferences

13. What makes a deductive argument valid, and how can you test for validity?
14. Explain inductive inference, and describe how it is different from an abductive inference.
15. How is reasoning from specific instances to generalizations similar to reasoning from the past to the future?
16. Explain abductive inference and describe how it is similar to an inductive inference.

5.5 Informal Fallacies

17. What are the four general categories of informal fallacies?
18. What is the difference between fallacies of relevance and fallacies of weak induction?
19. What is problematic with appealing to emotion in an argument, and how does this qualify it as a fallacy of relevance?
20. Explain what a fallacy of unwarranted assumption is, and offer an example of one.

Further Reading

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Metaphysics 6

FIGURE 6.1 Being and Becoming. The acorn and the oak allow us to frame several metaphysical questions. Are there first causes? Do things have essences? Do things develop along a predetermined path? (credit: "Acorn" by Shaun Fisher/Flickr, CC BY 2.0)

CHAPTER OUTLINE

INTRODUCTION Defining **metaphysics** is difficult. On a summary level, one possible definition is that metaphysics is the field of philosophy concerned with identifying that which is real. You may wonder why any reasonable person would invest time pursuing an answer to that which, at first glance, seems obvious. But on deeper inspection of the world around you, it can be challenging to identify what is real.

Consider the acorn. As you probably learned through life science, an acorn is destined to become an oak. If you were to look at the acorn and compare it to the oak, you would see two radically different things. How can a thing change and remain the same thing?

Aristotle offers insight into how the acorn and the oak represent change but within the same being. Within Aristotle's thinking, each being has a specific end or purpose. As *telos* is Greek for "end" (*end* as target or goal), this view is known as *teleological*. In addition, each being is described as having a specific function (ergon) by

which that being seeks the proper end.

In the case of an oak tree, the oak tree works from its acorn to the fullness of the oak. Aristotle describes the becoming as movement from a state of **potentiality** to **actuality**. You might say that which is most real concerning the oak stands beneath the movement from acorn to oak. The movement from potentiality toward actuality is one method to make sense of change while maintaining a constant or underlying sense of true being.

As you will discover, the topic of metaphysics is far-reaching and broaches many questions.

- What is real?
- What is being?
- Is there a purpose to our being?
- What is the self?
- Is there a God?
- Do human beings (however defined) possess free will?

Metaphysical questions tend not to be resting points but starting points. This chapter begins to explore many simple yet interrelated questions as part of seeking the real.

ΤΩΝ ΜΕΤΑ ΤΑ ΦΥΣΙΚΑ Α.

ΠΑΝΤΕΣ ἄνθρωποι τοῦ εἰδέναι ὀρέγονται φύσει. Σημεῖον δ' ἡ τῶν αἰσθήσεων ἀγάπησις· καὶ γὰρ χωρὶς τῆς χρείας ἀγαπῶνται δι' [b] αὐτάς, καὶ μάλιστα τῶν ἄλλων ἡ διὰ τῶν ὀμμάτων. Οὐ γὰρ μόνον ἵνα πράττωμεν, ἀλλὰ καὶ μηθὲν [c] μέλλοντες πράττειν τὸ ὁρᾶν αἱρούμεθα ἀντὶ πάντων σχεδὸν τῶν ἄλλων. Αἴτιον δ' ὅτι μάλιστα ποιεῖ γνωρίζειν [d] τι ἡμᾶς αὕτη τῶν αἰσθήσεων, καὶ πολλὰς δηλοῖ διαφοράς. Φύσει μὲν οὖν αἴσθησιν ἔχοντα γίνεται τὰ ζῷα, ἐκ δὲ [e] τῆς αἰσθήσεως τοῖς μὲν αὐτῶν οὐκ ἐγγίγνεται μνήμη, τοῖς [f] δ' ἐγγίγνεται. Καὶ διὰ τοῦτο [g] ταῦτα φρονιμώτερα [h] καὶ μαθητικώτερα τῶν [i] μὴ δυναμένων μνημονεύειν ἐστίν. Φρόνιμα [k] μὲν ἄνευ τοῦ μανθάνειν, ὅσα μὴ [l] δύναται τῶν φθόφθογγων ἀκούειν, οἷον μέλιττα, καὶ εἴ τι τοιοῦτον ἄλλο γένος ζῴων ἐστίν· μανθάνει δ' [m] ὅσα πρὸς τῇ μνήμῃ καὶ ταύτην ἔχει τὴν αἴσθησιν. Τὰ μὲν οὖν ἄλλα ταῖς φαντασίαις ζῇ καὶ ταῖς μνήμαις, ἐμπειρίας δὲ μετέχει μικρόν· τὸ δὲ τῶν ἀνθρώπων γένος καὶ τέχνῃ καὶ λογισμοῖς. Γίγνεται δ' ἐκ τῆς μνήμης ἐμπειρία τοῖς ἀνθρώποις· αἱ γὰρ πολλαὶ μνῆμαι τοῦ αὐτοῦ πράγματος μιᾶς ἐμπειρίας δύναμιν ἀποτελοῦσιν. Καὶ δοκεῖ σχεδὸν ἐπιστήμῃ καὶ τέχνῃ [n] ὅμοιον εἶναι ἡ ἐμπειρία.

Codices E.Q.S.T. H[a].A[b].B[b].C[b].D[b].E[b].F[b].G[b].H[b].I[b].f. [a] A E.A[b], a τὸ μεῖζον plerique, a μεῖζον Q.T., μεῖζον a f, a μέγα E[b]. [b] ἰσωτὰ H[a].E[b].f. [c] θέλοντες H[a].E[b].f. [d] τι om. E.A[b].E[b].f. [e] τῆς αἰσθήσεως] ταύτης A[b].D[b]. [f] δ' ἐγγίγνεται A[b].D[b], et rc. E[b]: ceteri δὲ γίγνεται. [g] ταῦτα φρονιμώτερα A[b].D[b]: ceteri τὰ μὲν φρόνιμα. [h] καὶ μαθητικώτερα A[b].D[b], τὰ δὲ μαθητικώτερα E.B[b].E[b].F[b]: ceteri τὰ δὲ μαθηματικώτερα. [i] μὴ om. S. [k] μὲν] μὲν οὖν T. [l] δύναται A[b].D[b].E[b]: ceteri δυνατά. [m] ὅσα] ἃ A[b].D[b]. [n] ὅμοιον εἶναι ἐμπειρίᾳ H[a].f, ὅμοιον εἶναι καὶ ἐμπειρία A[b].D[b], καὶ ἐμπειρίᾳ ὅμοιον εἶναι H[b].

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FIGURE 6.2 The term *metaphysics* comes from Aristotle's book of the same name. The opening sentence translates as "All men by nature desire to know." Our desire to lay bare the deepest and most discrete understanding of reality is at the heart of metaphysics. (credit: "Aristotle: Metaphysica, first page in Immanuel Bekker's edition, 1837." by Wikimedia, Public Doman)

6.1 Substance

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Identify what constitutes a substance.
- Articulate the difference between monism and pluralism.
- Contrast Aristotle's and Plato's views of form and substance.
- Compare theories of substance in Greek and Indian philosophy.

The Latin term *substantia,* translated as **substance**, is often used to refer to the basic reality of a thing. The notion that reason could lay bare the secrets of the cosmos if properly applied was widespread throughout the ancient world. One of the early questions that philosophers in ancient Greece and India approached was that of fundamentality, or simply, What is the foundation of reality? What is the independent base for that which we consider to be real?

Fundamentality: The One and the Many

A reasonable starting point in the philosophical pursuit of the "really real" is to consider just how many real things exist. Is the real one, or is it many? You are probably puzzled by the question. Every day, you see and experience a plurality of beings. Common sense suggests that if you were to take a moment to observe the many different and ostensibly non-related things in your presence right now, you would most likely support a pluralistic view (there are many real things). Yet the framing of the real as one (the view known as monism) is also compelling.

Monism

One of the earliest metaphysical positions taken was **monism**. At its simplest form, monism is the belief that the most discrete or fundamental reality (i.e., "the really real") is singular. This idea was held by the so-called pre-Socratics, a disparate group of philosophers who lived somewhat near each other and were born prior to Socrates but whose metaphysical positions, even if monistic, were wildly different. For example, they had different views of what the one "really real" is (see Table 6.1).

Date	Philosopher	The One Is:
c. 624–547 BCE	Thales of Miletus	water
c. 610–546 BCE	Anaximander of Miletus	the unbounded
c. 586–526 BCE	Anaximenes	air
c. 535–475 BCE	Heraclitus of Ephesus	fire
c. 515–445 BCE	Parmenides of Elea	Being

TABLE 6.1 Pre-Socratic Monists

It is tempting to look at the list of monistic answers and dismiss the thought quickly. Water, for example, is not the "really real." Yet, as we see below, philosophers such as Thales of Miletus made a consistent, rational argument for monism. In his case, he argued in support of water as the fundamental substance.

Thales of Miletus

Studying the philosophers who predate Socrates is challenging, as in many cases their primary works did not survive. But there are transcribed fragments and the characterization of other philosophers from which to gain insights. There are also historians to give glimpses of what these thinkers posited. In the case of Thales,

Aristotle is a useful source. Aristotle noted, "Thales, the founder of this school of philosophy, says the permanent entity is water (which is why he also propounded that the earth floats on water)" (Metaphysics 983b20). Why would anyone draw this conclusion? Aristotle suggested that Thales's belief reflected the observations that all things are nourished through water, that heat itself is generated through the absence or removal of water, and that all things require water to live. The observations inherent to the position itself are understandable. How long can a person live without water? What happens to plants during drought? Water is, indeed, essential for any being.

The intellectual assumptions supporting the position are intriguing. First, Thales is working from the assumption that all things that are must be conceived as having only a material principle. Given how these thinkers made sense of the world around them, assuming only material causes (e.g. fire, water, air, etc.) is understandable. A second assumption informing the position is the notion that being either is or it is not. For these thinkers, there is no becoming (for example, change or evolving) from one fundamental substance, such as water, to another, such as fire. There is no state somewhere in between being and not being. By extension, being (once it *is*) cannot be generated or destroyed. Thus, primary being (the most real of reals) must be and must not be capable of not being (Aristotle, Metaphysics 983b).

Thales's account of water as the most real is internally consistent, meaning the argument uses the evidence presented in such a way as to avoid asserting contradictory and potentially competing claims. However, his approach itself prioritizes reason over the overwhelming empirical evidence. As a result, he draws a conclusion that denies the reality of change, motion, and plurality that is experienced so readily.

Pluralism

Pluralism asserts that fundamental reality consists of many types of being. The pluralists viewed the "really real" as "many," but like the pre-Socratic monists, they did not hold a uniform view concerning how to define the many or basic realities (see Table 6.2).

Date	Philosopher	The Many Is:
c. 500–428 BCE	Anaxagoras	moving bits of matter
c. 494–434 BCE	Empedocles	fire, air, water, earth
c. 5th century BCE	Leucippus	atoms (indivisible eternal bits of matter)
c. 460–370 BCE	Democritus	atoms (indivisible eternal bits of matter)

TABLE 6.2 Pre-Socratic Pluralists

One of the views that resonates with the contemporary reader is that of atomism. Note that the atomism alluded to here is different from what is referred to as atomic theory. The atom within the thinking of Leucippus and Democritus refers to *atomos* as meaning "uncuttable" or "that which cannot be divided." The plurality we experience is the result of atoms in motion. As these indivisible and eternal bits of true being collide and either join or separate, the beings we experience are formed. But underneath or supporting the being we experience is that being which is eternal and unchanging—in other words, the atoms. Atoms are the true being, and the visible objects are not!

Although it might appear that they have broken all philosophical ties with the monists, both the monists and pluralists agreed that true being was eternal. Anything real stayed as it was. Change happened to things that were not real. This assertion, however, leads to the unsatisfactory conclusion that neither the acorn nor the oak is real.

Atomism in Indian Philosophy

Indian atomism provides for foundational immutable substances while going further toward accounting for change and explaining the transformation of the acorn into the oak. One of the earliest of all atomic models was pioneered in the sixth centurty BCE by a philosopher named Acharya Kanad. According to legend, he was inspired by watching pilgrims scatter rice and grains at a temple. As he began to examine the rice, he realized that the grains, left alone, were without value. But once the grains were assembled into a meal, the collection of "anu" (atom) made a meal. So too were the beings we observe collections of indivisible particles.

Another tradition, the Nyāya-VaiśeṢika, proposed an atomic theory built upon two elements: 1) The presence of change within things or wholes, and 2) The doctrine of five elements (pañca mahābhūtas). Unlike the Greek atomistic view explored earlier, each atom was thought to have a specific attribute. As noted by Chatterjee (2017), "An earth atom has odour, a water atom taste, a fire atom colour and an air atom has touch as specific attribute."

The reasoning supporting the atomistic views described above is *a priori.* Using an appeal to reason (and not experience), it was asserted that all things were composed of parts, and therefore it was necessary to assert that all things were reducible to eternal, spherical, and indivisible building blocks. The potential of an infinite regress (anavasthā) suggested that parts could always be divided into smaller parts. However, reason dictated that there must be a logical starting point at which no smaller part could be admitted (Chatterjee, 2017).

Unlike the random bumping and grinding used by Democritus to explain how atoms combined to form wholes, the Nyāya-VaiśeṢika framework explained composition through the joining of similar atomic types to first form a dyad (dyaṇuka) and then a triad (tryaṇuka). Triads joined in varying permutations in order to build the objects, or "wholes," we experience.

Ontological Perspectives on Substance

Up until now, this chapter has examined substance from a materialistic perspective—the concrete substances (water, fire, atoms) that make up the physical world that we see around us. As such, the discussion has been located squarely within a physicalism, an approach that equates the real world with the physical world. The study of existence, of being, of what is real—a discipline known as **ontology**—is broader. *Ontos* is the Greek participle from the verb "to be" and means "being." What qualifies as being? How should we categorize being?

Naturalism

Naturalism, in its simplest form, is the view that meaningful inquiry includes only the physical and the laws governing physical entities and rejects the priority placed on reason assumed within metaphysics. For example, naturalism asserts that the inventory of beings allowed should include beings that are found within the physical realm. If we can see a thing or if we can test a thing within a laboratory environment, then a naturalist would include the being within their inventory. Naturalists also weed out the assumptions, theories, and questions that are introduced but are not capable of empirical proof.

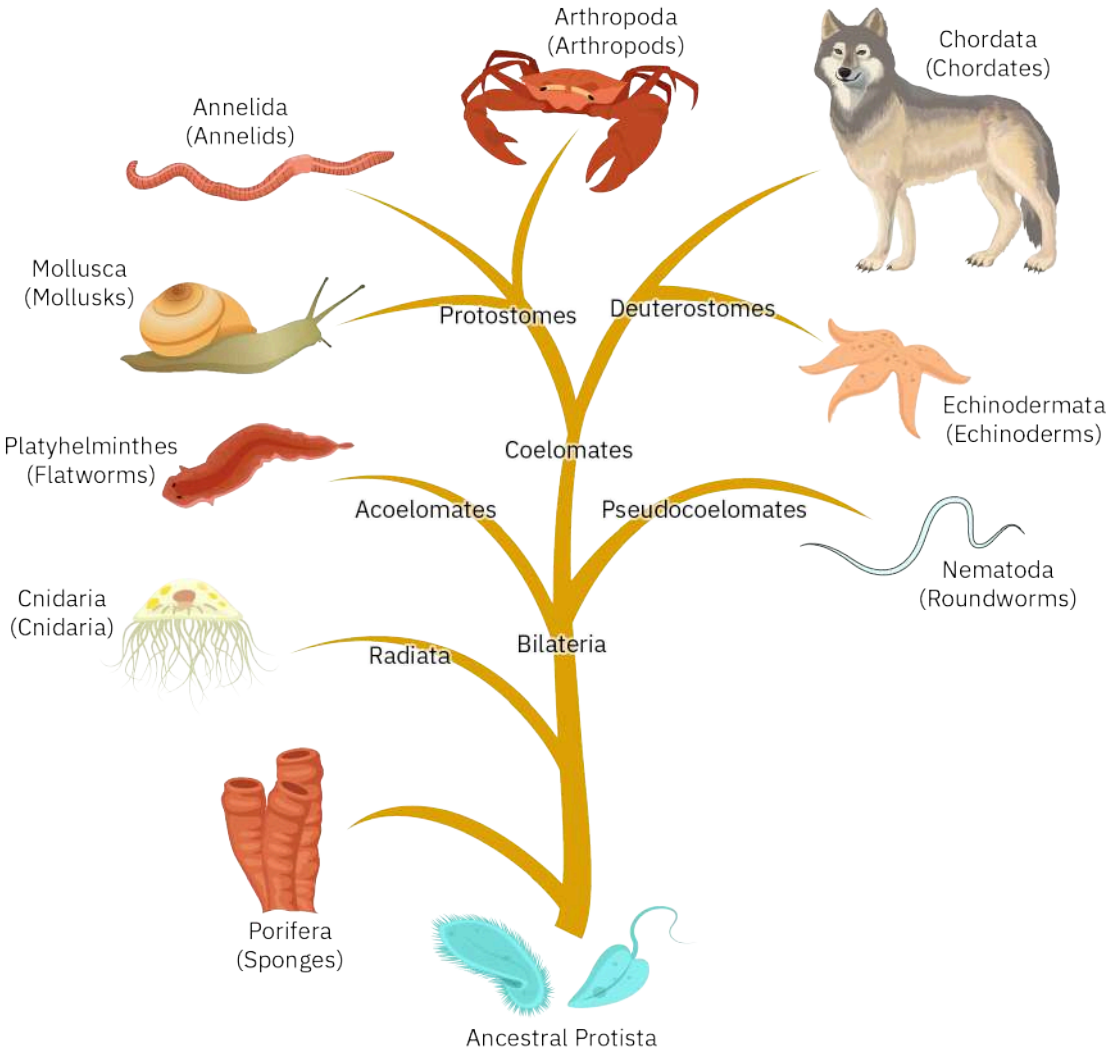

FIGURE 6.3 Aristotle initiated the classification of living things that continues today. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

The debate between supernaturalism (that accepts the existence of beings beyond or above our natural realm) and naturalism is as old as philosophical inquiry itself. But the tension became particularly relevant during the modern period. During modernity, scholars made advances across many disciplines based upon a turn to a scientific method and a rejection of *a priori* reasoning.

CONNECTIONS

The chapter on logic and reasoning covers the topic of logic in greater detail.

The Allegory of the Cave

In Book VII of *The Republic*, Plato offered his allegory of the cave, which depicts prisoners who have mistaken shadows cast on the wall of the cave for real beings and therefore have mistaken illusion for truth. The prisoners have been imprisoned throughout their lives. They are chained in place and have been positioned so that they can only see shadows that are cast upon the wall in front of them. They have come to treat the shadows not as the reflections that they are, but as something real. In an unexpected plot twist, one prisoner escapes and reaches the cave entrance. There, for the first time, he sees the sun—the true source of light (knowledge). After adjusting to the overpowering light emanating from the sun, the prisoner realizes that a fire was causing objects to cast shadows on the cave wall. The shadows cast by the fire within the cave were

reflections. He realized that the shadows are not actual being or truth—they were merely fading facsimiles of reality. The escaped prisoner, freed from the chains of his earlier captivity (metaphorically speaking), understands the true nature of being and truth. He returns to the cave to "free" his fellow captives, but his claim is rejected by those in chains.

FIGURE 6.4 The Allegory of the Cave (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

Plato's Notion of Substance and Form

The prisoners were mistaking shadows for that which was real. But shadows do not last. As soon as the source of light fades, the shadows too disappear. If we want to identify the really real, Plato argued, we need to go beyond mere shadows and try to find those beings whose reality is not temporary. The idea or form of a thing, unlike the material "shadow," was not subject to atrophy and change.

The Latin term *substantia*, translated as "substance," describes the basic reality or essence of a thing that supports or stands under features that are incidental to the substance itself. While the so-called incidental features (e.g., quantity, time, place, etc.) can change, the essence of the entity endures. To account for the fundamental whatness of a thing, Plato posited an unchanging form or idea as the underlying and unchanging substance. As all things within a person's reality are subject to change, Plato reasoned that the forms or unchanging basic realities concerning all things must not be located within this world. He therefore posited a realm in which change did not occur.

There is an intuitive appeal to Plato's accounting of the real to forms. How else could we explain our ability to recognize a type of being given the sheer number of differences we will observe in the instances of a thing? We can make sense of dog, for example, because beyond the differences found among spaniels, poodles, and retrievers, there is a form of dog that accounts for knowing dog and being as dog.

Aristotle on Matter and Form

Aristotle, a student of Plato, disagreed with his teacher. If forms did exist, he challenged, then how could forms influence things? How could an immaterial form–which lacks matter—cause change to material entities?

In addition, what about concepts that are not easily reducible to a simple meaning or idea? Aristotle noted that "good was said in many ways" (*Ethics* 1096a–b as found in Adamson 2016, 232). The reduction to a single form to identify the whatness for something works when the concept is simple but does not work when a wide-ranging concept (such as "the good") is considered. Aristotle agreed with the approach of isolating dogness as the essence, but through the study of specific instances or **particulars**. He encouraged natural observation of the entity in question and introduced the categories of species and genera.

Unlike Plato, Aristotle does not posit an otherworldly form or collection of forms. In his middle and later works,

Aristotle explained substance through a composite of matter and form. Form, much like an idea a sculptor has in mind, is the unchanging purpose or whatness informing each particular or individual instance. In this case of a sculpture, the sculptor's vision or idea was referred to as the formal cause. The marble would be the material cause. The ability and artistic skill of the sculptor was termed the efficient cause. The final cause reflected the purpose of the being, or the reason why the sculpture was made in the first place.

The idea of substance being a composite of form within matter became known as hylomorphism. The Greek word *hyle* translates as "wood." Here wood is figurative, a symbol of basic building material that is shaped by the form within a particular instance. The form does not reside in the Platonic heavens but, through purpose and efficiency, moves a particular thing from its beginning state (potentiality) along a continuum toward its final goal (actuality). The acorn is driven by its form and purpose to become the mighty oak. The movement from potentiality to actuality requires material and the efficient (proper) application of these materials such that the acorn can become!

FIGURE 6.5 School of Athens (credit: modification of work "The School of Athens by Raphael" by Bradley Weber/ Flickr, CC BY 2.0)

The attitudes of Plato and Aristotle are reflected in Figure 6.5. The School of Athens was discussed in the introduction to philosophy chapter. This section details the interaction between the two central characters in the oil-on-canvas painting. Plato is the subject displayed to the left of center, and Aristotle is the subject depicted to the right of center. Plato's gesture toward the heavens with his right hand was the artist's way of recognizing Plato's theory of forms. For Plato, forms were immutable and the ultimate reality. Forms were supposed to exist outside of our earthly realm as the things we observe are subject to change. Aristotle's gesture with his right hand was the artist's representation of Aristotle's stressing of the form embedded within particular matter. The ultimate reality was supposed to be within each instance of matter observed. The material components were subject to change, but the form was not.

What do you think? The crucial difference introduced at this historical point was the emphasis placed upon particulars—individual instances of an entity—by Aristotle. While Plato stressed forms and asserted that there could be no individual instance without the form, Aristotle stressed particulars and asserted that without individual instances, there could be no knowledge of the form. Whereas Plato holds that beauty itself causes the beauty we see in flowers or faces, Aristotle asserts that there is no such thing as beauty without beautiful things, such as flowers and faces (Adamson, 2016, p. 231).

PODCAST

Listen to the podcast "Aristotle on Substance (https://openstax.org/r/aristotle-substance)" in the series *The History of Philosophy without Any Gaps*.

6.2 Self and Identity

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Apply the dilemma of persistence to self and identity.
- Outline Western and Eastern theological views of self.
- Describe secular views of the self.
- Describe the mind-body problem.

Today, some might think that atomism and Aristotle's teleological view have evolved into a theory of cells that resolves the acorn-oak tree identity problem. The purpose, or ergon, of both the acorn and the oak tree are present in the zygote, the cell that forms when male and female sex cells combine. This zygote cell contains the genetic material, or the instructions, for how the organism will develop to carry out its intended purpose.

But not all identity problems are so easily solved today. What if the author of this chapter lived in a house as a child, and years later, after traveling in the highly glamorous life that comes with being a philosopher, returned to find the house had burned down and been rebuilt exactly as it had been. Is it the same home? The generic questions that center on how we should understand the tension between identity and persistence include:

- Can a thing change without losing its identity?
- If so, how much change can occur without a loss of identity for the thing itself?

This section begins to broach these questions of identity and self.

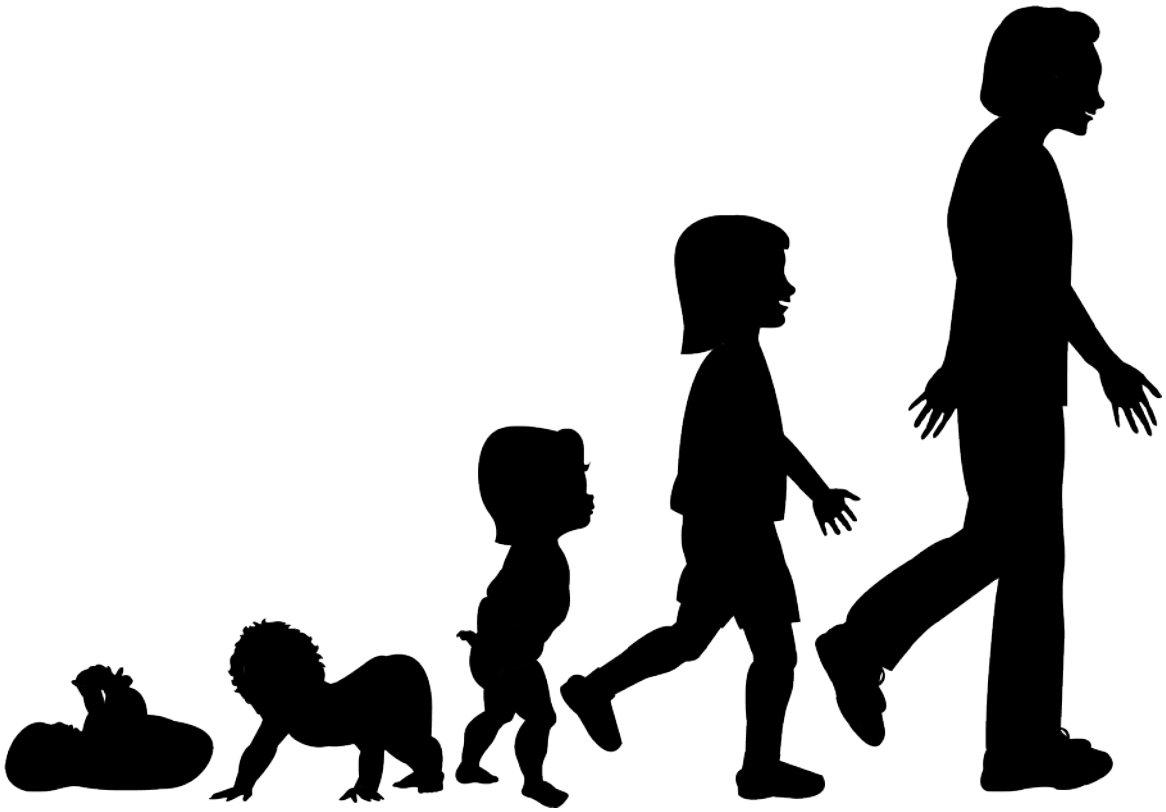

FIGURE 6.6 As we age, the cells in our body continually die and are replaced, and our appearance can change a great deal, particularly in childhood. In what way can we be said to be the same being as we were 10 or 20 years ago? This is a perennial philosophical question. (attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license)

The Ship of Theseus

Consider the following thought experiment. Imagine a wooden ship owned by the hero Theseus. Within months of launching, the need to replace decking would be evident. The salt content of sea water is highly corrosive. Accidents can also happen. Within a common version of the thought experiment, the span of one thousand years is supposed. Throughout the span, it is supposed that the entire decking and wooden content of the ship will have been replaced. The name of the ship remains constant. But given the complete change of materials over the assumed time span, in what sense can we assert that the ship is the same ship? We are tempted to conceptualize identity in terms of persistence, but the Ship of Theseus challenges the commonly held intuition regarding how to make sense of identity.

Similarly, as our bodies develop from zygote to adult, cells die and are replaced using new building materials we obtain though food, water, and our environment. Given this, are we the same being as we were 10 or 20 years ago? How can we identify what defines ourselves? What is our essence? This section examines answers proposed by secular and religious systems of belief.

WRITE LIKE A PHILOSOPHER

Watch the video "Metaphysics: Ship of Theseus (https://openstax.org/r/ship-of-theseus)" in the series *Wi-Phi Philosophy*. You will find five possible solutions for making sense of the thought experiment. Pick one solution and explain why the chosen solution is the most salient. Can you explain how the strengths outweigh the stated objections—without ignoring the objections?

Judeo-Christian Views of Self

The common view concerning identity in Judeo-Christian as well as other spiritual traditions is that the self is a soul. In Western thought, the origin of this view can be traced to Plato and his theory of forms. This soul as the real self solves the ship of Theseus dilemma, as the soul continuously exists from zygote or infant and is not replaced by basic building materials. The soul provides permanence and even persists into the afterlife.

Much of the Christian perspective on soul and identity rested on Aristotle's theory of being, as a result of the work of St. Thomas Aquinas. Aquinas, a medieval philosopher, followed the Aristotelian composite of form and matter but modified the concept to fit within a Christianized cosmology. Drawing upon portions of Aristotle's works reintroduced to the West as a result of the Crusades, Aquinas offered an alternative philosophical model to the largely Platonic Christian view that was dominant in his day. From an intellectual historical perspective, the reintroduction of the Aristotelian perspective into Western thought owes much to the thought of Aquinas.

In *Being and Essence*, Aquinas noted that there was a type of existence that was necessary and uncaused and a type of being that was contingent and was therefore dependent upon the former to be brought into existence. While the concept of a first cause or unmoved mover was present within Aristotle's works, Aquinas identified the Christian idea of God as the "unmoved mover." God, as necessary being, was understood as the cause of contingent being. God, as the unmoved mover, as the essence from which other contingent beings derived existence, also determined the nature and purpose driving all contingent beings. In addition, God was conceived of as a being beyond change, as perfection realized. Using Aristotelian terms, we could say that God as Being lacked potentiality and was best thought of as that being that attained complete actuality or perfection—in other words, necessary being.

God, as the ultimate Good and Truth, will typically be understood as assigning purpose to the self. The cosmology involved is typically teleological—in other words, there is a design and order and ultimately an end to the story (the *eschaton*). Members of this tradition will assert that the Divine is personal and caring and that God has entered the narrative of our history to realize God's purpose through humanity. With some doctrinal exception, if the self lives the good life (a life according to God's will), then the possibility of sharing eternity

with the Divine is promised.

THINK LIKE A PHILOSOPHER

Watch this discussion with Timothy Pawl on the question of eternal life, part of the PBS series *Closer to the Truth*, "Imagining Eternal Life (https://openstax.org/r/imagining-eternal-life)".

Is eternal life an appealing prospect? If change is not possible within heaven, then heaven (the final resting place for immortal souls) should be outside of time. What exactly would existence within an eternal now be like? In the video, Pawl claimed that time has to be present within eternity. He argued that there must be movement from potentiality to actuality. How can that happen in an eternity?

Hindu and Buddhist Views of Self

Within Hindu traditions, *atman* is the term associated with the self. The term, with its roots in ancient Sanskrit, is typically translated as the eternal self, spirit, essence, soul, and breath (Rudy, 2019). Western faith traditions speak of an individual soul and its movement toward the Divine. That is, a strong principle of individuation is applied to the soul. A soul is born, and from that time forward, the soul is eternal. Hinduism, on the other hand, frames *atman* as eternal; *atman* has always been. Although *atman* is eternal, *atman* is reincarnated. The spiritual goal is to "know atman" such that liberation from reincarnation (*moksha*) occurs.

Brahman

Hindu traditions vary in the meaning of *brahman*. Some will speak of a force supporting all things, while other traditions might invoke specific deities as manifestations of *brahman*. Escaping the cycle of reincarnation requires the individual to realize that *atman* is *brahman* and to live well or in accordance with *dharma*, observing the code of conduct as prescribed by scripture, and *karma*, actions and deeds. Union of the *atman* with *brahman* can be reach though yoga, meditation, rituals, and other practices.

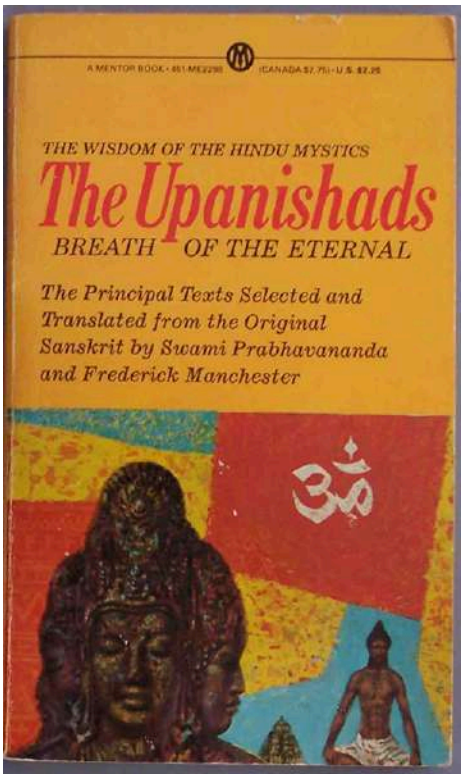

FIGURE 6.7 The Upanishads are Hindu scripture. (credit: "upanishads" by Dr Umm/Flickr, CC BY 2.0)

Buddha rejected the concept of *brahman* and proposed an alternate view of the world and the path to liberation. The next sections consider the interaction between the concepts of Atman (the self) and Brahman (reality).

The Doctrine of Dependent Origination

Buddhist philosophy rejects the concept of an eternal soul. The doctrine of dependent origination, a central tenet within Buddhism, is built on the claim that there is a causal link between events in the past, the present, and the future. What we did in the past is part of what happened previously and is part of what will be.

The doctrine of dependent origination (also known as interdependent arising) is the starting point for Buddhist cosmology. The doctrine here asserts that not only are all people joined, but all phenomena are joined with all other phenomena. All things are caused by all other things, and in turn, all things are dependent upon other things. Being is a nexus of interdependencies. There is no first cause or prime mover in this system. There is no self—at least in the Western sense of self—in this system (O'Brien 2019a).

The Buddhist Doctrine of No Self (*Anatman*)

One of many distinct features of Buddhism is the notion of **anatman** as the denial of the self. What is being denied here is the sense of self expressed through metaphysical terms such as substance or **universal** being. Western traditions want to assert an autonomous being who is strongly individuated from other beings. Within Buddhism, the "me" is ephemeral.

PODCAST

Listen to the podcast "Graham Priest on Buddhism and Philosophy (https://openstax.org/r/buddhism-and-philosophy)" in the series *Philosophy Bites.*

Suffering and Liberation

Within Buddhism, there are four noble truths that are used to guide the self toward liberation. An often-quoted sentiment from Buddhism is the first of the four noble truths. The first noble truth states that "life is suffering" (*dukkha*).

But there are different types of suffering that need to be addressed in order to understand more fully how suffering is being used here. The first meaning (*dukkha-dukkha*) is commensurate with the ordinary use of suffering as pain. This sort of suffering can be experienced physically and/or emotionally. A metaphysical sense of *dukkha* is *viparinama-dukkha*. Suffering in this sense relates to the impermanence of all objects. It is our tendency to impose permanence upon that which by nature is not, or our craving for ontological persistence, that best captures this sense of *dukkha*. Finally, there is *samkhara-dukkha*, or suffering brought about through the interdependency of all things.

Building on an understanding of "suffering" informed only by the first sense, some characterize Buddhism as "life is suffering; suffering is caused by greed; suffering ends when we stop being greedy; the way to do that is to follow something called the Eightfold Path" (O'Brien 2019b). A more accurate understanding of *dukkha* within this context must include all three senses of suffering.

The second of the noble truths is that the cause of suffering is our thirst or craving (*tanha*) for things that lack the ability to satisfy our craving. We attach our self to material things, concepts, ideas, and so on. This attachment, although born of a desire to fulfill our internal cravings, only heightens the craving. The problem is that attachment separates the self from the other. Through our attachments, we lose sight of the impermanence not only of the self but of all things.

The third noble truth teaches that the way to awakening (*nirvana*) is through a letting go of the cravings. Letting go of the cravings entails the cessation of suffering (*dukkha*).

The fourth truth is founded in the realization that living a good life requires doing, not just thinking. By living in accordance with the Eightfold Path, a person may live such that "every action of body, mind, and speech" are geared toward the promotion of dharma.

VIDEO

Buddhism's Four Noble Truths

Part of the BBC Radio 4 series *A History of Ideas*, this clip is narrated by Steven Fry and scripted by Nigel Warburton.

Click to view content (https://openstax.org/books/introduction-philosophy/pages/6-2-self-and-identity)

The Five Aggregates

How might the self (*atman*) experience the world and follow a path toward liberation? Buddhist philosophy posits five aggregates (*skandhas*), which are the thoughtful and iterative processes, through which the self interacts with the world.

1. Form (*rupa*): the aggregate of matter, or the body.
2. Sensation (*vedana*): emotional and physical feelings.
3. Perception (*samjna*): thinking, the processing of sense data; "knowledge that puts together."
4. Mental formation (*samskara*): how thoughts are processed into habits, predispositions, moods, volitions, biases, interests, etc. The fourth skandhas is related to karma, as much of our actions flow from these elements.
5. Consciousness (*vijnana*): awareness and sensitivity concerning a thing that does not include conceptualization.

Although the self uses the aggregates, the self is not thought of as a static and enduring substance underlying the processes. These aggregates are collections that are very much subject to change in an interdependent world.

Secular Notions of Self

In theology, continuity of the self is achieved through the soul. Secular scholars reject this idea, defining self in different ways, some of which are explored in the next sections.

Bundle Theory

One of the first and most influential scholars in the Western tradition to propose a secular concept of self was Scottish philosopher David Hume (1711–1776). Hume formed his thoughts in response to empiricist thinkers' views on substance and knowledge. British philosopher John Locke (1632–1704) offered a definition of substance in his *Essay Concerning Human Understanding*. In Book XXIII, Locke described substance as "a something, I know not what." He asserted that although we cannot know exactly what substance is, we can reason from experience that there must be a substance "standing under or upholding" the qualities that exist within a thing itself. The meaning of substance is taken from the Latin *substantia*, or "that which supports."

If we return to the acorn and oak example, the reality of what it means to be an oak is rooted in the ultimate reality of what it means to be an oak tree. The ultimate reality, like the oak's root system, stands beneath every particular instance of an oak tree. While not every tree is exactly the same, all oak trees do share a something, a shared whatness, that makes an oak an oak. Philosophers call this whatness that is shared among oaks a substance.

Arguments against a static and enduring substance ensued. David Hume's answer to the related question of "What is the self?" illustrates how a singular thing may not require an equally singular substance. According to Hume, the self was not a Platonic form or an Aristotelian composite of matter and form. Hume articulated the self as a changing bundle of perceptions. In his *Treatise of Human Nature* (Book 1, Part IV), Hume described

the self as "a bundle or collection of different perceptions, which succeed each other with inconceivable rapidity, and are in a perpetual flux and movement."

Hume noted that what has been mistaken for a static and enduring self was nothing more than a constantly changing set of impressions that were tied together through their resemblance to one another, the order or predictable pattern (succession) of the impressions, and the appearance of causation lent through the resemblance and succession. The continuity we experience was not due to an enduring self but due to the mind's ability to act as a sort of theater: "The mind is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety of postures and situations" (Hume 1739, 252).

FIGURE 6.8 David Hume (1711–1776) took British empiricism to its logical extreme. Immanuel Kant credited Hume as awakening him from his "dogmatic slumbers." (credit: "M. David Hume, 1764" by Simon Charles Miger after Charles-Nicolas Cochin II/National Gallery of Art, Public Domain)

Which theories of self—and substance—should we accept? The Greek theories of substance and the theological theories of a soul offer advantages. Substance allows us to explain what we observe. For example, an apple, through its substance, allows us to make sense of the qualities of color, taste, the nearness of the object, etc. Without a substance, it could be objected that the qualities are merely unintelligible and unrelated qualities without a reference frame. But bundle theory allows us to make sense of a thing without presupposing a mythical form, or "something I know not what!" Yet, without the mythical form of a soul, how do we explain our own identities?

Anthropological Views

Anthropological views of the self question the cultural and social constructs upon which views of the self are erected. For example, within Western thought, it is supposed that the self is distinct from the "other." In fact, throughout this section, we have assumed the need for a separate and distinct self and have used a principle of continuity based on the assumption that a self must persist over time. Yet, non-Western cultures blur or negate this distinction. The African notion of ubuntu, for example, posits a humanity that cannot be divided. The Nguni proverb that best describes this concept is "umuntu ngumuntu ngabantu" sometimes translated as "a

person is a person through other persons" (Gade 2011). The word *ubuntu* is from the Zulu language, but cultures from southern Africa to Tanzania, Kenya, and Democratic Republic of the Congo all have words for this concept. Anthropological approaches attempt to make clear how the self and the culture share in making meaning.

The Mind as Self

Many philosophers, Western and non-Western, have equated the self to the mind. But what is the mind? A monist response is the mind is the brain. Yet, if the mind is the brain, a purely biological entity, then how do we explain consciousness? Moreover, if we take the position that the mind is immaterial but the body is material, we are left with the question of how two very different types of things can causally affect the other. The question of "How do the two nonidentical and dissimilar entities experience a causal relationship?" is known as the mind-body problem. This section explores some alternative philosophical responses to these questions.

Physicalism

Reducing the mind to the brain seems intuitive given advances in neuroscience and other related sciences that deepen our understanding of cognition. As a doctrine, **physicalism** is committed to the assumption that everything is physical. Exactly how to define the physical is a matter of contention. Driving this view is the assertion that nothing that is nonphysical has physical effects.

THINK LIKE A PHILOSOPHER

Listen to the podcast "David Papineau on Physicalism (https://openstax.org/r/david-papineau)" in the series *Philosophy Bites.*

Focus on the thought experiment concerning what Mary knows. Here is a summary of the thought experiment:

Mary is a scientist and specializes in the neurophysiology of color. Strangely, her world has black, white, and shades of gray but lacks color (weird, but go with it!). Due to her expertise, she knows every physical fact concerning colors. What if Mary found herself in a room in which color as we experience it is present? Would she *learn* anything? A physicalist must respond "no"! Do you agree? How would you respond?

John Locke and Identity

In place of the biological, Locke defined identity as the continuity lent through what we refer to as consciousness. His approach is often referred to as the psychological continuity approach, as our memories and our ability to reflect upon our memories constitute identity for Locke. In his *Essay on Human Understanding*, Locke (as cited by Gordon-Roth 2019) observed, "We must consider what Person stands for . . . which, I think, is a thinking intelligent Being, that has reason and reflection, and can consider it self as itself, the same thinking thing in different times and places." He offered a thought experiment to illustrate his point. Imagine a prince and cobbler whose memories (we might say consciousness) were swapped. The notion is far-fetched, but if this were to happen, we would assert that the prince was now the cobbler and the cobbler was now the prince. Therefore, what individuates us cannot be the body (or the biological).

VIDEO

John Locke on Personal Identity

Part of the BBC Radio 4 series *A History of Ideas*, this clip is narrated by Gillian Anderson and scripted by Nigel Warburton.

Click to view content (https://openstax.org/books/introduction-philosophy/pages/6-2-self-and-identity)

The Problem of Consciousness

Christof Koch (2018) has said that "consciousness is everything you experience." Koch offered examples, such as "a tune stuck in your head," the "throbbing pain from a toothache," and "a parent's love for a child" to illustrate the experience of consciousness. Our first-person experiences are what we think of intuitively when we try to describe what consciousness is. If we were to focus on the throbbing pain of a toothache as listed above, we can see that there is the experiencing of the toothache. Curiously, there is also the experiencing of the experiencing of the toothache. Introspection and theorizing built upon first-person inspections affords vivid and moving accounts of the things experienced, referred to as *qualia*.

An optimal accounting of consciousness, however, should not only explain *what* consciousness is but should also offer an explanation concerning *how* consciousness came to be and *why* consciousness is present. What difference or differences does consciousness introduce?

PODCAST

Listen to the podcast "Ted Honderich on What It Is to Be Conscious (https://openstax.org/r/what-it-is-to-be-conscious)," in the series *Philosophy Bites*.

Rene Descartes and Dualism

Dualism, as the name suggests, attempts to account for the mind through the introduction of two entities. The dualist split was addressed earlier in the discussion of substance. Plato argued for the reality of immaterial forms but admitted another type of thing—the material. Aristotle disagreed with his teacher Plato and insisted on the location of the immaterial within the material realm. How might the mind and consciousness be explained through dualism?

VIDEO

Mind Body Dualism

Click to view content (https://openstax.org/books/introduction-philosophy/pages/6-2-self-and-identity)

A substance dualist, in reference to the mind problem, asserts that there are two fundamental and irreducible realities that are needed to fully explain the self. The mind is nonidentical to the body, and the body is nonidentical to the mind. The French philosopher René Descartes (1596–1650) offered a very influential version of substance dualism in his 1641 work *Meditations on First Philosophy*. In that work, Descartes referred to the mind as a thinking thing (*res cogitans*) and the body as an extended nonthinking thing (*res extensa*). Descartes associated identity with the thinking thing. He introduced a model in which the self and the mind were eternal.

FIGURE 6.9 Alas Poor Yorick. In Shakespeare's Hamlet, the character of Hamlet holds the skull of a court jester, his departed childhood companion, and laments his passing. Hamlet contemplates the fleetingness of existence through the moment. But what exactly is it that experiences existence? What is the self? (credit: "Hamlet with Yorick's skull" by Henry Courtney Selous/Wikimedia, Public Domain)

Behaviorism

There is a response that rejects the idea of an independent mind. Within this approach, what is important is not mental states or the existence of a mind as a sort of central processor, but activity that can be translated into statements concerning observable behavior (Palmer 2016, 122). As within most philosophical perspectives, there are many different "takes" on the most correct understanding. Behaviorism is no exception. The "hard" behaviorist asserts that there are no mental states. You might consider this perspective the purist or "die-hard" perspective. The "soft" behaviorist, the moderate position, does not deny the possibility of minds and mental events but believes that theorizing concerning human activity should be based on behavior.

Before dismissing the view, pause and consider the plausibility of the position. Do we ever really know another's mind? There is some validity to the notion that we ought to rely on behavior when trying to know or to make sense of the "other." But if you have a toothache, and you experience myself being aware of the *qualia* associated with a toothache (e.g., pain, swelling, irritability, etc.), are these sensations more than activities? What of the experience that accompanies the experience?

6.3 Cosmology and the Existence of God

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Describe teleological and moral arguments for the existence of God.
- Outline Hindu cosmology and arguments for and against the divine.
- Explain Anselm's ontological argument for the existence of God.
- Articulate the distinction between the logical and evidential problems of evil.

Another major question in metaphysics relates to cosmology. Cosmology is the study of how reality is ordered. How can we account for the ordering, built upon many different elements such as causation, contingency, motion, and change, that we experience within our reality? The primary focus of **cosmological arguments** will be on proving a logically necessary first cause to explain the order observed. As discussed in earlier sections, for millennia, peoples have equated the idea of a first mover or cause with the divine that exists in another realm. This section cosmological arguments for the existence of God as well as how philosophers have reconciled the existence of God with the presence of evil in the world.

Teleological Arguments for God

Teleological arguments examine the inherent design within reality and attempt to infer the existence of an entity responsible for the design observed. Teleological arguments consider the level of design found in living organisms, the order displayed on a cosmological scale, and even how the presence of order in general is significant.

Aquinas's Design Argument

Thomas Aquinas's Five Ways is known as a teleological argument for the existence of God from the presence of design in experience. Here is one possible formulation of Aquinas's design argument:

1. Things that lack knowledge tend to act toward an end/goal.
2. These things act toward an end either by chance or by design.
   A. It is obvious that it is not by chance.
   B. Things that lack knowledge act toward an end by design.
3. If a thing is being directed toward an end, it requires direction by some being endowed with intelligence (e.g. the arrow being directed by the archer).
4. Therefore, some intelligent being exists that directs all natural things toward their end. This being is known as God.

FIGURE 6.10 Thomas Aquinas proposed a teleological argument for the existence of God, basing God's existence on what he viewed as the inherent design within reality. (credit: "Saint Thomas Aquinas, c. 1450" by Rosenwald

Collection/National Gallery of Art, Public Domain)

Design Arguments in Biology

Though Aquinas died long ago, his arguments still live on in today's discourse, exciting passionate argument. Such is the case with design arguments in biology. William Paley (1743–1805) proposed a teleological argument, sometimes called the design argument, that there exists so much intricate detail, design, and purpose in the world that we must suppose a creator. The sophistication and incredible detail we observe in nature could not have occurred by chance.

Paley employs an analogy between design as found within a watch and design as found within the universe to advance his position. Suppose you were walking down a beach and you happened to find a watch. Maybe you were feeling inquisitive, and you opened the watch (it was an old-fashioned pocket watch). You would see all the gears and coils and springs. Maybe you would wind up the watch and observe the design of the watch at work. Considering the way that all the mechanical parts worked together toward the end/goal of telling time, you would be reluctant to say that the watch was not created by a designer.

Now consider another object—say, the complexity of the inner workings of the human eye. If we can suppose a watchmaker for the watch (due to the design of the watch), we must be able to suppose a designer for the eye. For that matter, we must suppose a designer for all the things we observe in nature that exhibit order. Considering the complexity and grandeur of design found in the world around us, the designer must be a Divine designer. That is, there must be a God.

Often, the design argument is formulated as an induction:

1. In all things we have experienced that exhibit design, we have experienced a designer of that artifact.
2. The universe exhibits order and design.
3. Given #1, the universe must have a designer.
4. The designer of the universe is God.

THINK LIKE A PHILOSOPHER

Read "The Fine-Tuning Argument for the Existence of God (https://openstax.org/r/the-existence-of-god)" by Thomas Metcalf.

Evaluate the arguments and counterarguments presented in this short article. Which are the most cogent, and why?

Moral Arguments for God

Another type of argument for the existence of God is built upon metaethics and normative ethics. Consider subjective and objective values. Subjective values are those beliefs that guide and drive behaviors deemed permissible as determined by either an individual or an individual's culture. Objective values govern morally permissible and desired outcomes that apply to all moral agents. Moral arguments for the existence of God depend upon the existence of objective values.

If there are objective values, then the question of "Whence do these values come?" must be raised. One possible answer used to explain the presence of objective values is that the basis of the values is found in God. Here is one premise/conclusion form of the argument:

1. If objective values exist, there must be a source for their objective validity.
2. The source of all value (including the validity held by objective values) is God.
3. Objective values do exist.
4. Therefore, God exists.

This argument, however, raises questions. Does moral permissibility (i.e., right and wrong) depend upon God?

Are ethics an expression of the divine, or are ethics better understood separate from divine authority?

WRITE LIKE A PHILOSOPHER

Watch "God & Morality: Part 2 (https://openstax.org/r/god-and-morality-part-2)" by Steven Darwall.

Darwall's argument for the autonomy of ethics may be restated as follows:

1. God knows morality best (1:44).
2. God knows what is best for us (2:12).
3. God has authority over us (2:48).

How does Darwall refute the conclusion? What is the evidence offered, and at what point within the argument is the evidence introduced? What does his approach suggest about refutational strategies? Can you refute Darwall's argument?

As you write, begin by defining the conclusion. Remember that in philosophy, conclusions are not resting points but mere starting points. Next, present the evidence, both stated and unstated, and explain how it supports the conclusion.

The Ontological Argument for God

An **ontological argument** for God was proposed by the Italian philosopher, monk, and Archbishop of Canterbury Anselm (1033–1109). Anselm lived in a time where belief in a deity was often assumed. He, as a person and as a prior of an abbey, had experienced and witnessed doubt. To assuage this doubt, Anselm endeavored to prove the existence of God in such an irrefutable way that even the staunchest of nonbelievers would be forced, by reason, to admit the existence of a God.

Anselm's proof is *a priori* and does not appeal to empirical or sense data as its basis. Much like a proof in geometry, Anselm is working from a set of "givens" to a set of demonstrable concepts. Anselm begins by defining the most central term in his argument—God. For the purpose of this argument, Anselm suggests, let "God" = "a being than which nothing greater can be conceived." He makes two key points:

1. When we speak of God (whether we are asserting God is or God is not), we are contemplating an entity who can be defined as "a being than which nothing greater can be conceived."
2. When we speak of God (either as believer or nonbeliever), we have an intramental understanding of that concept—in other words, the idea is within our understanding.

Anselm continues by examining the difference between that which exists in the mind and that which exists both in the mind and outside of the mind. The question is: Is it greater to exist in the mind alone or in the mind and in reality (or outside of the mind)? Anselm asks you to consider the painter—for example, define which is greater: the reality of a painting as it exists in the mind of an artist or that same painting existing in the mind of that same artist and as a physical piece of art. Anselm contends that the painting, existing both within the mind of the artist and as a real piece of art, is greater than the mere intramental conception of the work.

At this point, a third key point is established:

3. It is greater to exist in the mind and in reality than to exist in the mind alone.
   Have you figured out where Anselm is going with this argument?

   A. If God is a being than which nothing greater can be conceived (established in #1 above);
   B. And since it is greater to exist in the mind and in reality than in the mind alone (established in #3 above);
   C. Then God must exist both in the mind (established in #2 above) and in reality;
   D. In short, God must be. God is not merely an intramental concept but an extra-mental reality as well.

FIGURE 6.11 Anselm's proof for the existence of God is structured like a mathematical proof, working from a definition of the term "God" to the conclusion that God must exist. (credit: "S. Anselme, évêque de Cantorbéry (St. Anslem, Bishop of Canterbury), April 21st, from Les Images De Tous Les Saincts et Saintes de L'Année (Images of All of the Saints and Religious Events of the Year)" by Jacques Callot/The Metropolitan Museum of Art, Public Domain)

Hindu Cosmology

One of the primary arguments for the existence of God as found within Hindu traditions is based on cosmological conditions necessary to explain the reality of karma. As explained in the introduction to philosophy chapter and earlier in this chapter, karma may be thought of as the causal law that links causes to effects. Assuming the doctrine of interdependence, karma asserts that if we act in such a way to cause harm to others, we increase the amount of negativity in nature. We therefore hurt ourself by harming others. As the self moves through rebirth (*samsara*), the karmic debt incurred is retained. Note that positive actions also are retained. The goal is liberation of the soul from the cycle of rebirth.

Maintenance of the Law of Karma

While one can understand karmic causality without an appeal to divinity, how the causal karmic chain is so well-ordered and capable of realizing just results is not as easily explainable without an appeal to divinity. One possible presentation of the argument for the existence of God from karma could therefore read as follows:

1. If karma is, there must be some force/entity that accounts for the appropriateness (justice) of the karmic debt or karmic reward earned.
2. The source responsible for the appropriateness (justice) of the debt or reward earned must be a conscious agent capable of lending order to all karmic interactions (past, present, and future).
3. Karmic appropriateness (justice) does exist.
4. Therefore, a conscious agent capable of lending order to all karmic interactions (past, present, and future) must exist.
5. Therefore, God exists.

Physical World as Manifestation of Divine Consciousness

The cosmology built upon the religious doctrines allows for an argument within Hindu thought that joins a version of the moral argument and the design argument. Unless a divine designer were assumed, the moral and cosmological fabric assumed within the perspective could not be asserted.

Hindu Arguments Against the Existence of God

One of the primary arguments against the existence of God is found in the Mīmāmsā tradition. This ancient school suggests that the Vedas were eternal but without authors. The cosmological and teleological evidence as examined above was deemed inconclusive. The focus of this tradition and its several subtraditions was on living properly.

Problem of Evil

The problem of evil poses a philosophical challenge to the traditional arguments (in particular the design argument) because it implies that the design of the cosmos and the designer of the cosmos are flawed. How can we assert the existence of a caring and benevolent God when there exists so much evil in the world? The glib answer to this question is to say that human moral agents, not God, are the cause of evil. Some philosophers reframe the problem of evil as the problem of suffering to place the stress of the question on the reality of suffering versus moral agency.

The Logical Problem of Evil

David Hume raised arguments not only against the traditional arguments for the existence of God but against most of the foundational ideas of philosophy. Hume, the great skeptic, starts by proposing that if God knows about the suffering and would stop it but cannot stop it, God is not omnipotent. If God is able to stop the suffering and would want to but does not know about it, then God is not omniscient. If God knows about the suffering and is able to stop it but does not wish to assuage the pain, God is not omnibenevolent. At the very least, Hume argues, the existence of evil does not justify a belief in a caring Creator.

The Evidential Problem of Evil

The evidential problem considers the reality of suffering and the probability that if an omnibenevolent divine being existed, then the divine being would not allow such extreme suffering. One of the most formidable presentations of the argument was formulated by William Rowe:

1. There exist instances of intense suffering which an omnipotent, omniscient being could have prevented without thereby losing some greater good or permitting some evil equally bad or worse.
2. An omniscient, wholly good being would prevent the occurrence of any intense suffering it could, unless it could not do so without thereby losing some greater good or permitting some evil equally bad or worse.
3. (Therefore) there does not exist an omnipotent, omniscient, wholly good being. (Rowe 1979, 336)

Western Theistic Responses to the Problem of Evil

Many theists (those who assert the existence of god/s) have argued against both the logical and evidential formulations of the problem of evil. One of the earliest Christian defenses was authored by Saint Augustine. Based upon a highly Neo-Platonic methodology and ontology, Augustine argued that as God was omnibenevolent (all good), God would not introduce evil into our existence. Evil, observed Augustine, was not real. It was a privation or negation of the good. Evil therefore did not argue against the reality or being of God but was a reflection for the necessity of God. Here we see the application of a set of working principles and the stressing of *a priori* resulting in what could be labeled (*prima facie*) a counterintuitive result.

An African Perspective on the Problem of Evil

In the above sections, the problem of evil was centered in a conception of a god as all-powerful, all-loving, and

all-knowing. Evil, from this perspective, reflects a god doing evil (we might say reflecting the moral agency of a god) and thus results in the aforementioned problem—how could a "good" god do evil or perhaps allow evil to happen? The rich diversity of African thought helps us examine evil and agency from different starting points. What if, for example, the lifting of the agency (the doing of evil) was removed entirely from the supernatural? In much of Western thought, God was understood as the creator. Given the philosophical role and responsibilities that follow from the assignment of "the entity that made all things," reconciling evil and creation and God as good becomes a problem. But if we were to remove the concept of God from the creator role, the agency of evil (and reconciling evil with the creator) is no longer present.

Within the Yoruba-African perspective, the agency of evil is not put upon human agency, as might be expected in the West, but upon "spiritual beings other than God" (Dasaolu and Oyelakun 2015). These multiple spiritual beings, known as "Ajogun," are "scattered around the cosmos" and have specific types of wrongdoing associated specifically with each being (Dasaolu and Oyelakun 2015). Moving the framework (or cosmology) upon which goodness and evil is understood results in a significant philosophical shift. The meaning of evil, instead of being packed with religious or supernatural connotations, has a more down-to-earth sense. Evil is not so much sin as a destruction of life. It is not an offense against an eternal Creator, but an action conducted by one human moral agent that harms another human moral agent.

Unlike Augustine's attempt to explain evil as the negation of good (as not real), the Yoruban metaphysics asserts the necessity of evil. Our ability to contrast good and evil are required logically so that we can make sense of both concepts.

6.4 Free Will

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Define free will.
- Explain how determinism, libertarianism, and compatibilism are different.

Though the presence of evil in the world suggests that we have free will, the idea of a first mover or an all-powerful divine being challenges the idea that we might have free will in the material world. Throughout most of our experiences, it seems as if we are free. When we complete a task, we seem very capable of marking this experience as different from being free. But what if the sensation of freedom does not demonstrate the presence of freedom?

Amusement parks often have rides that consist of a car on a track that has safety features forcing the car to stay within predetermined paths. In most cases, there is an accelerator, a brake, and a steering wheel. Some rides have strategically placed rubber boundaries guiding the vehicle, while others have a steel post hidden underneath the car that guides the car by means of a predetermined tract. While "driving" the car, the young driver feels free to choose the direction. As vivid as the experience for the driver may be, the thrill and phenomenon does not prove the presence or existence of freedom! Similarly, does the feeling of being free demonstrate the presence of freedom in our actions?

Defining Freedom

To begin to answer these questions, this section first explores two competing definitions of freedom.

The Ability to Do Otherwise

Perhaps the most intuitive definition of freedom can be expressed as "A moral agent is free if and only if the moral agent could have done otherwise." Philosophers refer to this expression as the Principle of Alternative Possibilities (PAP). A person is typically thought of as performing a free action if that same person could have taken a different action or decided to take no action. Within many legal systems, a person is not considered culpable if the action taken was forced.

One objection against the PAP is based on how we define our being. What if we as physical objects are governed by the laws of nature? We do not set our rate of velocity when diving into a pool, nor are we able to determine the force of gravity if we choose to enter the water "belly first"! Those outcomes are determined by the laws of nature. We, as objects, are governed by such forces. Does this mean, like the driver in the ride depicted above, that we never actually experience alternative possibilities? If so, then the possibility of freedom—a precondition for responsibility—seems absent.

What about socialization and the conditioning that follows from living in a society? Does the constructed set of norms and values lessen our ability to do otherwise? Given the external conditioning we all endure, can we assert that the PAP is a possibility?

The Ability to Do as One Wants

One possible objection to defining freedom through PAP was offered by Harry G. Frankfurt. Frankfurt argued that freedom was better understood not as the ability to do otherwise but as the ability to do what one wants (1971). Imagine that a deranged space alien barges into your room and produces a sinister-looking button. You are informed that the button will annihilate Earth if pressed. The alien laughs manically and demands that you eat a delicious pizza brought from your favorite pizzeria or the alien will press the button. You can feel and smell the freshness! In this case, most of us would argue that you are not free to do otherwise. But you could say that you not only want the pizza, a first-order volition, but given what is at stake, you want to want the pizza. You could be described as acting freely, as you are satisfying your first- and second-order volitions. You are free, as you are doing what you want to do.

Libertarianism

Within the free will debate, **libertarianism** denotes freedom in the metaphysical sense and not in the political sense. A libertarian believes that actions are free—that is, not caused by external forces. We are free to plot our course through our actions. Existentialists further argue that our essence is the product of our choices.

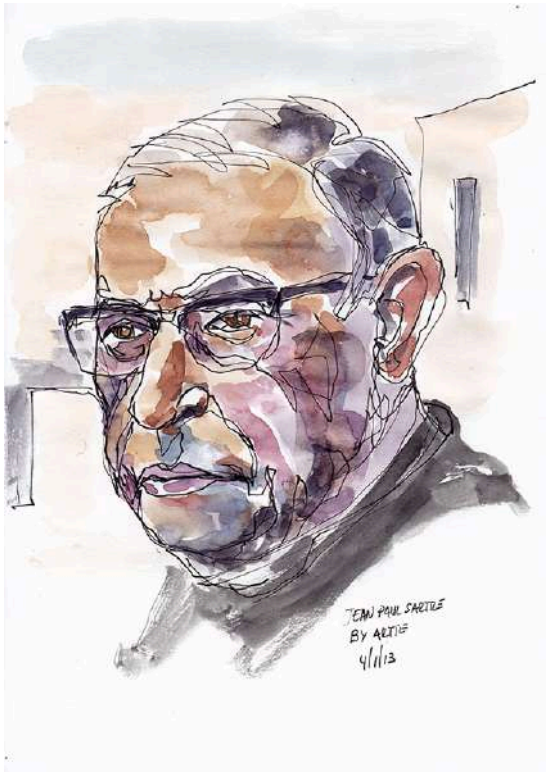

FIGURE 6.12 Condemned to Be Free. Jean-Paul Sartre (1905–1980) was a leader in the existential movement. He once characterized the reality of freedom as condemnation, as through the existence of free will, a human being was

therefore responsible for all actions taken. (credit: "Jean Paul Sartre for PIFAL" by Arturo Espinosa/Flickr, CC BY 2.0)

Many proponents of the libertarian view assume the definition of freedom inherent to the Principle of Alternative Possibilities (PAP). We are free if and only if we could have done otherwise at a specific time.

There are many challenges to this assertion. One objection, based on Benjamin Libet's neuroscience-based experiments, suggest that many of the actions we perceive as free are, in fact, caused and determined by the brain.

VIDEO

The Libet Experiment: Is Free Will Just an Illusion?

This video, from the BBC Radio 4 series *A History of Ideas*, is narrated by Harry Shearer and scripted by Nigel Warburton.

Click to view content (https://openstax.org/books/introduction-philosophy/pages/6-4-free-will)

Determinism

The contrary view to metaphysical libertarianism is **determinism**. The determinist holds that human moral agents are not free from external forces. Our actions could not have been otherwise. Thus, action X at time T must occur.

Causal Closure of the Physical World

One argument used to support determinism is built upon the observation of causality. Baron D'Holbach (1723–1789), in his *System of Nature,* observed that we, like all other natural entities, are subject to and governed by natural laws of the universe. His so-called "hard determinism" posited that all our actions are outside of our control. Humans cannot escape the cause-and-effect relationships that are part and parcel of being in the world.

Causal Determinacy of the Past

Another argument used to support determinism is built upon the consideration of past experiences. Perhaps the simplest way to express the causal force the past holds on future events is to reflect on your first-person experience. How influential has the past been in shaping the decisions you make in the present? We use expressions that reflect this causal power—for example, I will not get fooled again, I guess I will have to learn from my mistakes, etc. What has happened in the past can, in the least, limit the event horizon of the present.

The power of the past is not limited to first-person experience. Our socio-economic status, for example, can be a powerful force in determining the actions we deem permissible. As Ralph Waldo Emerson once quipped, we tend to "don the knapsack of custom" without questioning the contents of the knapsack.

Another important distinction when discussing determinism is that of **compatibilism**. Some determinists will assume that free will is not compatible with determinism. An incompatibilist position asserts that due to the nature of freedom and our lack of control concerning our actions, we cannot be held culpable for our actions. A soft determinist will assume that free will is compatible with determinism. In order to salvage a sense of moral culpability, an incompatibility might challenge the definition of freedom in terms of the PAP. For example, if you consider Frankfurt's framing of freedom of fulfilling higher-order volitions, then even when forced to take an action, it may have very well been the action you would have chosen if not forced to do so.

William James (1842–1910) offers a view called indeterminism in which the notion is that all events are rigidly controlled. What if there is the possibility that one small effect might be uncaused somewhere out there in the grand series of cause-and-effect sequences? Given the possibility that such an uncaused effect might occur, there is the chance that not all events are falling dominoes or events that must happen. Thus, even in a deterministic setting, an indeterminist can argue that the possibility of an uncaused act is a genuine one. By extension, your choices, your hopes, and the actions for which you should be praised or criticized cannot be

treated without doubt as caused externally. These actions could be your own!

THINK LIKE A PHILOSOPHER

Watch the video "Language: Contrastivism #2 (Free Will) (https://openstax.org/r/contrastivism-2-free-will)" by Walter Sinnott-Armstrong.

Metaphysicians are concerned with freedom from causation. By contrast, ethicists are concerned with freedom from constraint. Contrastivism allows enough space for philosophers to contrast the different focuses and to appreciate the differences that these differences introduce. According to Sinnott-Armstrong, the net result is a cease-fire. How can you support or refute the contrastivist solution to the problem of free will?

Summary

6.1 Substance

The Latin term *substantia,* translated as "substance," is often used to refer to the basic reality supporting or standing under features that are incidental to that same thing. Ancient Greek philosophers were both monists and dualists. Indian philosophers developed the idea of atomism. The challenge of persistence (i.e., whether a thing could be said to retain identity despite changes introduced through time) can be explored through the Ship of Theseus thought experiment.

6.2 Self and Identity

There are different answers to the question "What is the self?" The Judeo-Christian view tends to posit the "really real," or the true self, in terms of a soul. Hindu and Buddhist views identify the self with the "atman." *Atman* is an ancient term and has many meanings, but typically the term is translated as eternal self, soul, or even breath. Unlike in the Judeo-Christian view, the soul is reincarnated until the self attains release from reincarnation (*moksha*). The Buddhist doctrine of No Self (*anatman*) challenged the Western view in which the self is understood as enduring. There is no persistent self; within Buddhism, the "me" is ephemeral.

A second issue addressed within this subsection is the reality of the mind. Many people identify the mind as the brain. Perhaps the attempts to reduce thinking to an independent mind are relics of an outdated view. The hard problem of consciousness is identified as the inability to explain one's awareness of being aware. Behaviorism, the understanding of the self in terms of behavior, is one possible explanation for the ultimate reality of the self.

6.3 Cosmology and the Existence of God

The attempt to demonstrate the existence of God has taken many forms and occurred across multiple cultures. Cosmological arguments consider that which is found in experience—that is, they are *a posteriori* and move from observed effects to cause. Ontological arguments are not based in experience but call upon people as thinkers to apply reason in order to reach a conclusion (i.e., they are *a priori* arguments). These arguments, much as a geometer might consider the nature of a triangle and then prove a theorem concerning triangularity, do not appeal to experience. Rather, they pose that the basic attributes of God are known through reason. Moral theorists argue for the existence of a divine being through a consideration of the possibility of objective values.

How might the existence of evil support or argue against the existence of a god? The evidential problem of evil considers the reality of suffering and challenges the attributes we might apply to God given the existence of suffering. As not all traditions assume the same cosmology, some traditions (such as the African or Yoruban view) do not have this particular issue. Augustine, working within a Christian cosmology, attempted to answer the challenge by positing evil as the absence of good. Thus, a god could not be challenged as being good if evil existed as evil was merely the privation (absence) of good.

6.4 Free Will

Does the sensation of freedom prove the existence of freedom? The metaphysical libertarian response declares that human action are free and outside of the causality observed governing natural objects. Because free choices exist, we are culpable for our decisions. The determinist response, in its so-called hard form, states that all actions are governed by the laws and principles observed in nature. According to this view, people's actions, although accompanied by a feeling of freedom, are not in fact free. This section considers the soft determinist position, in which, as long as the moral agent did not face internal constraints concerning the choice at hand, the action could be free. Soft determinism is considered a compatibilist position, as the lack of alternative possibilities was considered compatible with freedom. Indeterminism, observing the inability of human reason to capture reality and all cause-and-effect chains in totality, asserts that the possibility of one event being outside of a cause-and-effect sequence is enough to assert the possibility of human freedom.

Key Terms

Actuality in Aristotelian thought, the level to which a being has realized its purpose.
Anatman a Buddhist concept of the self as no-self (as not retaining identity through time).
Compatibilism the view that a lack of freedom for the human moral agent is compatible with moral culpability for that same agent.
Cosmological argument a type of argument for the existence of God based upon consideration of cosmic causality.
Determinism the belief that human actions are governed by the laws of nature.
Dualism a view that posits two types of being in order to account fully for the nature of the thing under scrutiny.
Libertarianism within the problem of freedom, the view that human actions are freely chosen and outside of the causality that governs natural objects.
Metaphysics the field of philosophy concerned with identifying that which is real.
Monism the view that reality is comprised of one fundamental type of being.
Naturalism the rejection of any non-natural or appeal to supernatural explanatory concepts within philosophy.
Ontological argument an argument for the existence of God built upon a consideration of the attribute of God's existence.
Ontology a field within metaphysics dedicated to the study of being.
Particular when discussing being, the instance of a specific being.
Physicalism the notion that being is material or physical.
Pluralism asserts that fundamental reality consists of many types of being.
Potentiality in Aristotelian thought, the level to which a being's purpose might reach.
Substance the most enduring and underlying reality of a thing; from the Latin *substantial* or that which supports a thing.
Teleological argument an argument for the existence of God based upon the presence of ends (goals or purpose) as observed within nature.
Universal when discussing being, a reality or concept that accounts for the shared whatness of a specific type of being.

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Review Questions

6.1 Substance

1. Why does Thales believe that water is the most basic reality?
2. The Pre-Socratics were wrong in their various metaphysical explanations. Yet they are considered to have contributed significantly to the history of philosophy and metaphysics. How could they have contributed if they were wrong?
3. What inspired Kanad and his atomistic understanding of reality?
4. What does the Sun represent within Plato's Allegory of the Cave?

5. How does Aristotle connect the acorn and the oak? What do they share?

6.2 Self and Identity

6. Why does the "Ship of Theseus" present a problem for identity?
7. What does the term "Anatman" mean? What are the implications for the self?
8. What is the so-called "mind-body problem"?
9. What is the so-called "hard problem of consciousness?"
10. After reading Locke's "The Prince and the Pauper" thought experiment, do you agree that two have switched identities? Why or why not?

6.3 Cosmology and the Existence of God

11. The moral arguments for the existence of God rest upon the reality of objective values. Can a shared human interest preserve a sense of objective good (without needing a reference to a God)?
12. Anselm's argument posits a distinction between necessary being and contingent being. What is the difference and how did he argue in support of the reality of the distinction?
13. In Aquinas' arguments offered in this section, motion was not movement from one place to another but rather movement from potentiality to actuality, i.e, becoming. Using the acorn and the oak, describe what happens as a being moves from becoming to actuality within Aquinas's metaphysics. What role does purpose play in motion? What role does God play?
14. Why is the existence of suffering a problem for those who posit a God?

6.4 Free Will

15. What is determinism?
16. What is the difference between hard and soft determinism?
17. What is libertarianism?
18. Is determinism compatible with moral culpability? Why or why not?
19. Who was Jean Paul Sartre and what was his position concerning the free will problem?

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