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Philosophy & Intellectual History

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Modern Philosophy

The Modern Intellectual Tradition: From Descartes to Derrida

Course Guidebook

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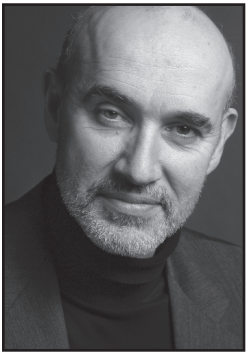

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Professor Lawrence Cahoone was born in 1954 and grew up in a small town outside Providence, Rhode Island. He received his B.A. from Clark University, majoring in Psychology and Philosophy, then received his Ph.D. in Philosophy from Stony Brook University. He lived in Brooklyn, New York, for many years and, after graduate school, taught at several New York–area colleges. He accepted a position at Boston University, where he taught from 1987 to 2000 and received the Undergraduate Philosophy Association Teaching Award in 1991 and 1994. He joined the faculty at the College of the Holy Cross in 2000.

Professor Cahoone has taught more than 50 different course subjects, in many areas of philosophy. He is the author of *Cultural Revolutions: Reason versus Culture in Philosophy, Politics, and Jihad*; *Civil Society: The Conservative Meaning of Liberal Politics*; *The Ends of Philosophy: Pragmatism, Foundationalism, and Postmodernism*; and *The Dilemma of Modernity: Philosophy, Culture, and Anti-Culture*. He is the editor of *From Modernism to Postmodernism: An Anthology*. He is currently working on *The Orders of Nature*, a systematic naturalist metaphysics. His philosophical background is primarily in recent European, American, and social and political philosophy, with interests as well in postmodernism and the relation of metaphysics to the natural sciences.

Professor Cahoone is married to the philosopher Elizabeth Baeten of Green Bay, Wisconsin. They currently live with their two children, Isabel Rose and Harrison, in southeastern Massachusetts. Both children are artistic and musical; he and his wife do not know how that happened. ■

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SUPPLEMENTAL MATERIAL

The Modern Intellectual Tradition: From Descartes to Derrida

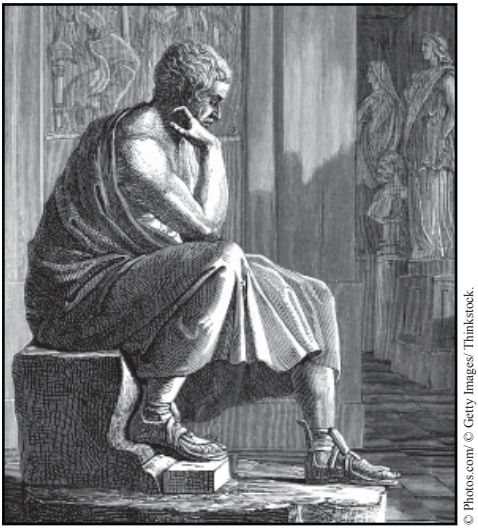
Scope:

Experience tells me my desk is solid, but physics says it is mostly empty space. How can both be right? Is the scientific view of the world compatible with human experience—or more difficult, with free will, moral responsibility, and religion? What is the mind's place in a physical world? Just what is the ultimate nature of reality, and what are the limitations of our knowledge of it?

In this course, we explore modern and contemporary Western philosophy of reality (metaphysics) and knowledge (epistemology), from the 17th century through the 20th century, spanning movements such as empiricism, rationalism, idealism, philosophy of language, logical positivism, existentialism, pragmatism, phenomenology, and postmodernism. In the process, we examine the thought of René Descartes, John Locke, Baruch Spinoza, David Hume, Immanuel Kant, Georg Wilhelm Friedrich Hegel, Charles Sanders Peirce, Friedrich Nietzsche, Gottlob Frege, Sigmund Freud, Max Weber, William James, Alfred North Whitehead, Ludwig Wittgenstein, Martin Heidegger, John Dewey, Willard Van Orman Quine, Thomas S. Kuhn, Richard Rorty, and Jacques Derrida, among others.

Philosophy and society affect each other. The contributions of philosophers have an impact on a historical period, but it is also true that historical changes drive philosophers to create novel theories. Modern Western philosophy is certainly no exception. Its development was encouraged by great social changes: the discovery of the Americas, the decline of feudal aristocratic institutions, the growth of a commercial middle class, the fragmentation of Christianity by the Protestant Reformation, the growth of the nation-state, the scientific revolution, and waves of industrial and technological change. Modernity is, as one of our philosophers has it, an era of permanent change. Such has been mirrored in the philosophies of the period.

Modern philosophy rests on the development of ancient and medieval philosophy. That is, the work of the ancient Greek philosophers, especially Plato and Aristotle, had been passed down through the Roman Empire and, in some cases through the Arabic world, before being taken up by medieval Christian scholars. Many of the problems that concerned the medievals were the same as those of ancient philosophers, namely, trying to understand nature, human being, the moral life, the nature of beauty, and what a just society should be. But in other respects, philosophy in the Middle Ages was quite different. It was the business of priests, one of the few literate sectors of society, some of whom belonged to holy orders and taught in the great medieval universities. They communicated across national boundaries with a universal scholarly language, Latin, the gift of the defunct Roman Empire. And the medievals of course had a concern foreign to the ancients: What is the nature of the monotheistic Judeo-Christian God, and how does God relate to all else?



Aristotle (384–322 B.C.E.) laid the groundwork for later thinkers.

Modern philosophy, beginning in the 16th and 17th centuries, marked a major departure from medieval thought. Certainly the many social and religious changes of the time helped to fragment the long-stable medieval worldview, but the greatest blow came with the scientific revolution and scientific speculations of early modern philosophers. These philosophers tended to be freelance intellectuals, often supported by aristocratic or royal patrons. Throughout the 17th-century Age of Reason, scientific change forced philosophers to reconceive the world and how we know it. Science ripped the wiring from the dominant medieval view of the universe, and rethinking was needed to integrate the new science into a philosophy that could understand

it and its relation to ethics and religion. In the 18th-century Enlightenment, these lofty notions begin to have real-world impact; the modern view that science, political freedom, and education together yield social progress came of age. But along with such progress came a new philosophical skepticism. Then the great political revolutions of the late 18th century began to affect the political world with new ideas. In the 19th century, the Industrial Revolution remade societies themselves, and there arose great historical philosophical systems that tried to explain to modern people just how different they were from ages past. Modern thought became self-conscious about being modern. At the same time, a host of dissenters sprang up.

In the 20th century, Western philosophy became much more complicated. On the one hand, as in all disciplines, philosophers became more specialized in particular subfields. Logic and the physical sciences underwent a series of revolutions. Those who continued to follow scientific changes had a much more complex set of theories to deal with. Other philosophers abandoned the concern for science altogether. Philosophy fragmented as different schools of thought sought new foundations for knowledge in different places. Then in the second half of the century, the whole attempt to seek the foundations of knowledge, a project that had dominated philosophy from the 17th century, began to be abandoned; with it, attempts at comprehensive or systematic philosophies became discredited. Some claimed that philosophy itself was at an end. But by the start of the new millennium, it was clear that reports of philosophy's death had been greatly exaggerated. We pursue this complicated story from the beginning of the 17th century to the end of the 20th century. ■

Philosophy and the Modern Age

Lecture 1

Does God exist? Is belief in a monotheistic God compatible with our knowledge of the world, and particularly with the existence of evil? Does history exhibit a pattern of development, or is it either random or cyclic? Can all reality be reduced to the study of physics? All of these questions are provided by the unique conditions of the modern world.

"Philosophy," whose etymology means love of wisdom, can be defined in a variety of ways. One way is to say that philosophy is the most general or comprehensive type of inquiry; it leaves nothing out except the particulars that other sciences and their own special methods investigate. "First philosophy" refers to two philosophical subfields: epistemology, or the theory of knowledge; and metaphysics, or the theory of reality. These two, the focus of this course, constitute a very important family of inquiries, like what is reality, and how do we know it?

Modern philosophy, beginning in the 16th and 17th centuries, marked a major departure from medieval thought. Throughout the Age of Reason in the 17th century, scientific change forced philosophers to reconceive the world and how we know it. The new science overturned the Aristotelian and Ptolemaic science that had been woven together with Christianity. This period led to the 18th century, the Enlightenment, when science, education, and political freedom were believed to be the keys to remaking society. A sizable educated public emerged, pressing for more freedom, and new ways of thought began to have real-world impact.

Along with such progress came a new philosophical skepticism, which led at the end of the 18th century to the rise of an idealistic philosophy that dominated the 19th century. The Industrial Revolution remade societies themselves, and there arose great historical systems that tried to explain to modern people just how different they were from ages past. Whereas the ideas of modernity had started in the 17th and 18th centuries, it was only in the 19th century that the lives of most ordinary people began to be transformed by industrialism, science, and technology.

In the early 20th century, Western philosophy became more fragmented, as different schools of thought sought new foundations for knowledge in different places. In each new philosophical tradition, wave after wave of radical philosophies put our knowledge of the world in question, especially through the analysis of the knowing mind's dependence on language and culture.

It was only in the 19th century that the lives of most ordinary people began to be transformed by industrialism, science, and technology.

Modern philosophy is filled with questions that no other age has had to answer, partly because modern thought is the thought of a civilization that invented things that no one had ever invented before.

In the second half of the 20th century, the attempt to seek the foundations of knowledge, which had dominated philosophy from the 17th century, was generally abandoned. There was a real recognition that perhaps philosophy could not do what it had always wanted to do: gain certain knowledge about the nature of reality and the human prospect. By the end of the 20th century, philosophy had pushed on to an even more radical question: How can we understand the nature of human existence and the human hope for meaning in a universe that, as understood by modern science, apparently has little place for such meaning, and in which philosophical inquiry itself seems to have come unmoored and philosophy seems to doubt itself? ■

Suggested Reading

Cahoone, *From Modernism to Postmodernism.*

Passmore, *A Hundred Years of Philosophy.*

Randall, *The Career of Philosophy*.

Questions to Consider

1. How might the role of philosophy in culture change over time?

2. If philosophy is the most general or comprehensive form of inquiry, then what happens to it in an age of specialization?

Scholasticism and the Scientific Revolution

Lecture 2

How are we to make the new science compatible with religion and the soul, the human mind, and freedom and morality—for the new science is claiming that the universe is a set of material objects … that move according to mechanical laws of motion. If that's true … of the Earth and of the Moon, it must be true of me as well. What does that have to say about my mind, my freedom, my morality, and my soul?

The changes in philosophy are inseparable from the monumental changes in Western society in the Middle Ages. Medieval Europe was a collection of feudal states, locally ruled by landed aristocrats, populated by vast numbers of illiterate peasants, and dimpled by a small number of towns with merchants. The only literate members of society were priests, and philosophy was done by priests in the great universities of the largest cities. After the 13th century, one philosophical school of thought became so widespread among the major universities that it simply came to be called **Scholasticism**, meaning the philosophy of the schools.

In Scholasticism, God ruled a finite, closed universe in which each natural kind served divine purpose.

Scholasticism combined **Aristotle**'s logic and metaphysics with Christianity. Aristotle's was a qualitative science of natural kinds, each being an independent physical existent, or primary substance. The aim of Aristotelian science was to classify all types of qualitatively different substances: to define them, relate them, and delineate their causes. Aristotle's physics was combined by other ancients with Ptolemy's geocentric view of the cosmos. In Scholasticism, God ruled a finite, closed universe in which each natural kind served divine purpose.

This decline of the Scholastic worldview in the 15th and 16th centuries had many causes: the discovery of the New World, the Protestant Reformation, and the rise of royal power and the middle class. But the strongest blow

was dealt by the scientific revolution in the 17th century. The attack came in stages: First came the 1543 publication of **Nicolaus Copernicus**'s *On the Revolutions of Celestial Spheres*. In this book, Copernicus argued for the heliocentric system, which put the Earth in motion and the Sun at the center of the universe. Copernicus was not the first person to think of this, but he made the most convincing mathematical case for its validity. Then Galileo, who supported the Copernican system, introduced a new science of mechanics, of matter in motion, understood to interact through material and efficient causes without reliance on substantial forms. This was crucial, because in effect Galileo said that the explanation of the motion of a body does not depend on its nature. It depends on its mass, it depends on its shape, but it does not depend on what kind of thing it is: Aristotle's qualitatively distinctive substantial forms do not matter anymore.

Aristotle's science was gradually eclipsed by that of medieval and modern writers.

Last came **Isaac Newton**, in his epoch-marking *Mathematical Principles of Natural Philosophy* of 1687. He showed that the laws of motion of everyday objects in the world and the gravitational forces that controlled the movements of planets and stars were the same. With one blow, Newton destroyed the division between the sublunar and superlunar realms. The conflict that the new science introduced was not between the New Testament and the new science. The scientific revolution was attacking Aristotelianism, which by now was woven together so tightly with Christianity that any attack on Aristotle came to be viewed as an attack on the whole of Scholasticism, including religion. The philosophical problem this posed was how to

combine the new science with conceptions of the human mind, ethics, and life's meaning, all of which were informed by Christianity. ■

Names to Know

Aristotle (384–322 B.C.E.): A student of Plato, this Athenian philosopher made seminal contributions to almost every field of knowledge. His physics lasted until the 17th century, his biology until Charles Darwin, and his logic until the late 19th century.

Copernicus, Nicolaus (1473–1543): The astronomer who formulated the modern heliocentric theory of the solar system.

Newton, Isaac (1643–1727): The greatest scientist of early modern Europe. His discovery that the same laws of motion guide terrestrial objects and planets was the greatest achievement of the scientific revolution.

Important Term

Scholasticism: The synthesis of the philosophy of Aristotle and Christian theology that was forged in the 13th century and dominated the universities of central and western Europe from the 14th through the 18th century.

Suggested Reading

Aristotle, *Categories.*

Aristotle, *Physics.*

Burtt, *The Metaphysical Foundations of Modern Science.*

Koyré, *From the Closed World to the Infinite Universe.*

Questions to Consider

1. What is the difference between Aristotelian and modern science?

2. Which is better for a modern understanding of nature, Plato or Aristotle?

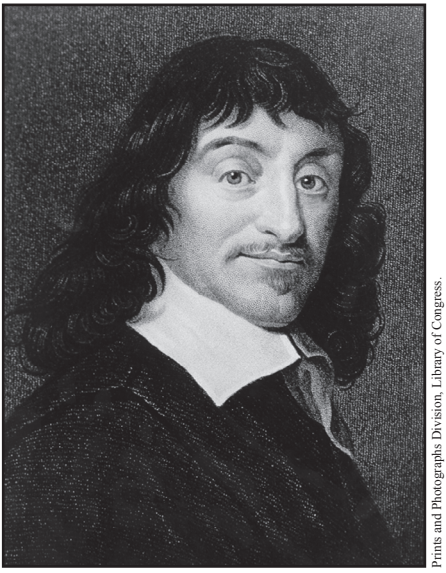
The Rationalism and Dualism of Descartes

Lecture 3

What makes this notion, "I think, therefore I exist," certain is that, Descartes says, the ideas in it are perfectly clear and distinct. It's logically perspicuous, which means we can see it by the light of nature, the natural light of reason.

René Descartes, in the early 17th century, made such a characteristic break with medieval thought that he is usually considered the starting point of modern philosophy. His most famous book, *Meditations on First Philosophy*, begins with radical doubt, discovers what he thinks is certain, and proves the existence of God and the world.

The question Descartes tried to answer is, what can we know with certainty? How can we know which is right: our Scholastic tradition, which includes the thought of Aristotle and the medieval Christian thinkers, or the new Galilean-Copernican science? Descartes did nothing less than to seek a new foundation of certain knowledge on which everything else could lie. He approached this by doubting everything to see if any belief could not be doubted. He looked at whole categories of beliefs and decided whether each was absolutely certain or not. Having gone through these examples, Descartes determined that he could doubt everything: mathematics, physics, memories, history, perceptions. Descartes arrived at this foundation: "*Cogito ergo sum*" ("I think, therefore I



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René Descartes is considered the father of modern philosophy.

exist"). Even if my mind is being deceived about everything, it must be that I have a mind.

Descartes further reasoned that the essence of material substance, if it exists, is spatial extension. Matter takes up space. Mind does not take up space: A thought has no space; an idea has no volume, no width, and no breadth. If Descartes had stopped here, he would have been a **solipsist**. But Descartes then managed to prove that the content of my mind implies its creation by an infinite, perfect being—and since such a being could not be a deceiver, the material universe must exist.

Descartes' philosophical impact went farther than these arguments. He showed that the foundation of all knowledge is individual subjective consciousness. Descartes separated mind and body utterly; they are two different kinds of substances. Thus the mind or soul is independent of the physical world of matter in motion that science studies. God has endowed the mind with innate logical and mathematical ideas that make possible the scientific method for exploring nature. As long as we use that method, we will not be deceived. Scientific method, then, guarantees that our beliefs are true, which means they correspond to their objects. Descartes supported epistemic **rationalism**. Rationalism holds that besides sensory experience, we have another source of ideas and knowledge. For Descartes, those were the innate ideas.

The question Descartes tried to answer is, what can we know with certainty?

Descartes also clearly practiced and was the best example of **foundationalism**: the belief that philosophy's job is to discover the foundation or ground of all realist, objective knowledge and thereby answer skepticism. The biggest problem that Descartes leaves us with is this: How can mind and body, thus understood, interact? Descartes forged probably the most influential solution to the basic problem of the 17th century: how to put together the new science with other notions of psychology, ethics, and religion. But we have been struggling with that solution ever since. ■

Name to Know

Descartes, René (1596–1650): This French philosopher and mathematician is often considered the father of modern philosophy because he inaugurated the view that all is to be seen from the standpoint of individual consciousness.

Important Terms

foundationalism: The attempt to provide an incorrigible, presuppositionless ground for objective or realist knowledge claims.

rationalism: The epistemological view that not all knowledge is derived from experience, that there is some nonexperiential source of knowledge. Its antonym is empiricism.

solipsism: The epistemological view that all I experience and know are properties of myself, that all objects of my experience and knowledge are in me.

Suggested Reading

Descartes, *Meditations on First Philosophy.*
Kenny, *Descartes.*

Questions to Consider

1. What is the status of nonhuman living things in Descartes' metaphysics?

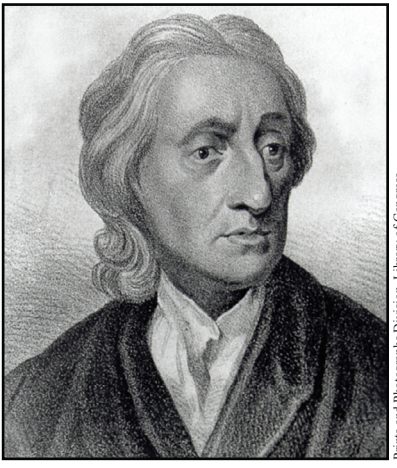
2. How does Descartes justify the logical intuitions, which he calls the "light of nature" and "clear and distinct" ideas, that form the basis of his argument?

Locke's Empiricism, Berkeley's Idealism

Lecture 4

When we perceive the orangeness, the sphericality, the hardness, the dimpled skin, and the size of a basketball, we can't believe that the basketball is nothing but those properties; it must be the case there's something underlying them and holding them together into one substance, which we can't perceive. We can only perceive the perceivable; there must be something else. That's the "unknown support" for Locke.

John Locke was the most important early modern English philosopher. In his epistemological masterpiece, *An Essay Concerning Human Understanding*, he offered an **empiricist** counterpoint to Descartes. For Locke, all ideas and knowledge come from experience. There can be no innate ideas: The mind is an empty cabinet, a blank slate on which experience writes. The crux of the rationalist-empiricist debate lies in how we explain our possession of ideas that seemingly could not come from experience, like infinity and perfection.



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English empiricist John Locke.

Like all empiricists, Locke was compelled by his view to do a psychological inventory of the ideas of the mind. For Locke, we receive simple, indivisible ideas from sensation and reflection. Our mind takes these simple ideas in and then combines them into complex ideas. Ideas received through sensation correspond to qualities in objects having the power to cause the ideas. This is a very simple and straightforward view: My mind is being affected by objects in the world that cause sensations in it. What lies behind this distinction is that Locke actually assumed the metaphysical truth of the atomic theory. That is, Locke thought that all

physical, material substances in the world are actually composed of tiny, insensible atoms.

Empiricism would seem to be tailor-made for science and a materialist, physical view of the world. But appearances are deceiving, for the next important empiricist after Locke is **George Berkeley**. Berkeley actually took empiricism to the extreme of denying the existence of matter; that is, Berkeley became an **idealist**. Philosophical idealism holds that reality is mental, or the product of mind. Berkeley was an absolute **materialist** and in fact came to the conclusion that matter does not exist.

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Irish idealist George Berkeley.

Berkeley, an Anglican bishop, was no stranger to contemporary science and actually created a very prominent theory of vision. Berkeley's strange philosophy—claiming that there is no such thing as matter—is a very simple outcome of starting with the dualism of Locke and Descartes and then arguing against the possibility of the ways mind and body can interact. He severed the relationship between the two, in effect pointing out the difficulties in the dualism of Locke and Descartes; and once he severed that relationship, he determined everything must be mind.

Nobody today is a Berkeleian, but his apparently strange doctrine has had two major impacts: First, it correctly exposed the inner inconsistency of Descartes' and Locke's metaphysics; half a century after Berkeley, the German idealists made great use of his arguments. Second, his notion that all we experience is experience revealed something deep about the views of both Locke and Descartes: In them, our experience is not of things, but of mental events; whether those experiences represent something external is a question that we probably cannot answer. The argument between rationalists and empiricists has been raging ever since. ■

Names to Know

Berkeley, George (1685–1753): This Irish empiricist, an Anglican bishop, took empiricism to the extreme of denying the existence of matter, thus becoming an idealist.

Locke, John (1632–1704): The foremost English philosopher of the 17th century, he played a crucial role in both politics and the epistemology of the new science. His *Second Treatise on Government* and *Letter Concerning Toleration* justified England's Glorious Revolution of 1689 and helped to inspire American political thought. His later *Essay Concerning Human Understanding* made the case for an empiricist view of the new science.

Important Terms

empiricism: The epistemological view that all knowledge derives from experience. Empiricism's opposite is rationalism.

idealism: The metaphysical view that reality is in some important sense mental. Different kinds of idealism press the mentality of the world to differing degrees. Idealism's opposite is materialism, physicalism, or naturalism.

materialism: The metaphysical view that reality is solely composed of matter. Materialism's opposite is idealism.

Suggested Reading

Berkeley, *Three Dialogues between Hylas and Philonous.*

Locke, *Essay Concerning Human Understanding*.

Randall, *The Career of Philosophy*, vol. 1.

Questions to Consider

1. How can we feel entrance of ideas or directly sense power?

2. Is experience of experience, or is it in the nature of consciousness to intend what is not itself?

Neo-Aristotelians—Spinoza and Leibniz

Lecture 5

Interestingly, one could say that all these philosophers—Descartes, Locke, Spinoza, Leibniz, and Berkeley—employ God as the means of holding reality together, either making the relationship of mind and body possible … or establishing the relationship between fundamental bits of reality.

Baruch Spinoza and **Gottfried Wilhelm Leibniz**, who were both scientists and philosophers, tried to forge a different version of mind-body interactions. They were inspired by the Aristotelian notion of substance, that each substance must be independent. They accepted the principles of the new science but were still trying to answer the question, how can the new scientific picture of the world and of God be reconciled with Aristotle's metaphysics of substance?

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Dutch philosopher Baruch Spinoza was a panentheist.

Spinoza reasoned that there can only be one substance, the Whole, whether we call it God or Nature. Thus Spinoza became the most famous **panentheist** in modern thought. The one substance has infinitely many attributes, two of which are mind and body. Mental events and material events are two separate but parallel causal chains. This led him to a strict determinism, in which there is no free will.

Leibniz took the same notion in the opposite direction: There are an indefinitely large number of atomic, indivisible substances (called monads) that compose everything. But unlike in traditional atomism, Leibniz's substances must be active, appetitive, and perceptive. All changes a monad undergoes must be dictated by its own internal form or rule of development,

for monads cannot interact, they "have no windows." Each monad internally represents or perceives all others, and God's "preestablished harmony" coordinates them all. ■

Photo by The Teaching Company.

Gottfried Wilhelm Leibniz.

Names to Know

Leibniz, Gottfried Wilhelm (1646–1716): This early modern German philosopher was a true polymath, student of all sciences and mathematics. He made lasting but piecemeal changes to many areas, but he is best remembered for his unique metaphysics of monads.

Spinoza, Baruch (1632–1677): This Jewish Dutch philosopher famously supported the new science and pantheism by arguing that all reality is one substance, which can be called *deus sive nature* (God or Nature).

Important Terms

pantheism, panentheism: Pantheism is the claim that God and the universe are identical. Some philosophers distinguish this from the view that the universe is in God, but God is more than the universe, calling it panentheism. Baruch Spinoza, sometimes called a pantheist, was more strictly a panentheist.

Suggested Reading

Leibniz, *Discourse on Metaphysics.*

Russell, *A Critical Exposition of the Philosophy of Leibniz, with an Appendix of Leading Passages.*

Spinoza, *Ethics.*

Wolfson, *The Philosophy of Spinoza.*

Questions to Consider

1. How do my thoughts and my acts relate to each other in Spinoza's metaphysics?

2. How do monads aggregate to make a human being for Leibniz?

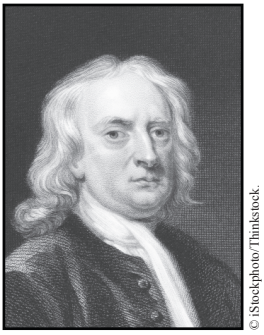
The Enlightenment and Rousseau

Lecture 6

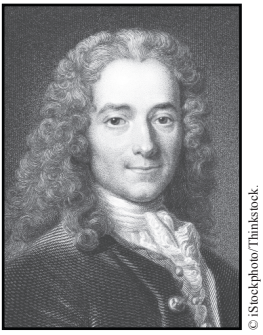
If Galileo had started the new science, it was Newton's 1687 *Mathematical Principles of Natural Philosophy* that seemed, to many, to complete it. To most educated people, it seemed that after Newton, all that was necessary was to fill in the details of his scheme for human knowledge of nature to be completed. This went as far as the poet Alexander Pope writing, "God said, 'Let Newton be,' and there was light."

The Enlightenment was an explosion of literate, scientific, political, and philosophical culture in 18th-century northwestern Europe. All thinkers of the age were asking themselves, what ought our modern version of the ancient free republics of Greece and Rome look like? It is to the Enlightenment that we owe a core notion of modernity: that individual freedom and equality, scientific truth, and widespread education jointly create social progress over the opposition of custom, superstition, and authority. The Enlightenment occurred in England and France, of course, but also in Holland, Scotland, and a bit later, Germany.

The most radical and influential of the new thinkers were arguably Isaac Newton, who appeared to have achieved the final truth about nature; **Voltaire**, who epitomized the modern literary intellectual opposition to the authority of the Catholic Church; and **Adam Smith**, who made the canonical formulation



Isaac Newton.



Voltaire.

Adam Smith.

of spontaneous order, or the notion that the best society emerges undesigned from the interaction of free producers and consumers. The greatest dissenter was **Jean-Jacques Rousseau**, who argued that progress in the arts, sciences, and economy yields no progress in morality or happiness. Paradoxically, his work encouraged the greatest political change of the late century: the French Revolution. ■

Names to Know

Rousseau, Jean-Jacques (1712–1778): The Genevan philosopher who was the chief dissenter of the Enlightenment, denying that advances in the arts and sciences bring moral progress. He famously considered "primitive" man superior and inveighed against both social inequality and concern for social status.

Smith, Adam (1723–1790): The canonical formulator of free-market capitalism, an economic system left undesigned and uncontrolled, in which the self-interested actions of producers and consumers spontaneously—as if guided by an invisible hand—increase productivity and the general quality of life.

Voltaire (a.k.a. François-Marie Arouet; 1694–1778): The most famous intellectual and man of letters of 18th-century France. He criticized the traditional authorities of royal government and the church and wrote *Candide*.

Suggested Reading

Gay, *The Enlightenment*.

Rousseau, *The First and Second Discourses*.

———, *On the Social Contract*.

Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*.

Questions to Consider

1. Does science go together with political liberty and equality, or do they sometimes conflict?

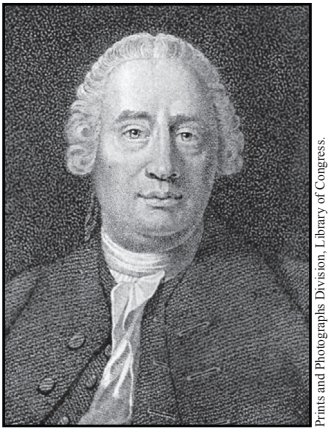
2. In what ways is modernity morally superior to traditional life, and in what ways is it inferior?

The Radical Skepticism of Hume

Lecture 7

What Hume leaves us with is that reason and life are tragically at odds; this is almost a bit of existentialism in the 18th century. Hume shows that if we begin with empiricism … and a belief that all knowledge comes from sense experience, we in fact must, in the end, come to the conclusion that all our beliefs about the world, all our claimed knowledge about the world, with very few exceptions, have no rational justification whatsoever. Nevertheless, we are not at liberty to cease to believe in them, because nature is too strong for principle.

David Hume, one of the most prominent members of the Scottish Enlightenment, was a multifaceted thinker who took empiricism to the extreme of radical **skepticism**. As a nonbeliever, he wrote without any use of God or the transcendent in his philosophical work. The human mind is constituted, for Hume, by nature, and human history is contingent, replete with accidents, not the progressive revelation of a divine theme or developing toward an ideal conclusion. Hume's work regularly ran afoul of religious convention: His writings were suppressed, and his excommunication was called for.



Prints and Photographs Division, Library of Congress.

Scottish skeptic David Hume.

Hume began his theory of knowledge simply: Suppose all knowledge and ideas derive from experience. Then there are two kinds of knowledge: matters of fact, which relate ideas from prior experience to new experience; and relations of ideas, which relate ideas from prior experience to each other. The former give us real knowledge but no certainty or necessity; the latter give us certainty and necessity but only about ideas, for they are truths of definition (e.g., "All bachelors are unmarried").

Applying Hume's dichotomy to a host of issues eliminates all knowledge of necessity in experience or reality. Nothing must be as it is: There is no necessity or power by which cause brings about effect. We cannot rationally show the Sun will rise tomorrow or that a dropped stone will fall; we literally have no rational reason to expect it. Scientific statements merely summarize past experience; they cannot predict the future. Likewise, there can be no rational argument for the existence of substance, either material or mental, or God. Our beliefs on these matters are simply the results of custom or habit, not reason. ■

Name to Know

Hume, David (1711–1776): This Scottish philosopher and historian was the greatest skeptic of the modern period. His work created problems, particularly his critique of causality and of inductive reasoning. He played a major role in inspiring Immanuel Kant, and philosophers to the present day struggle to answer his views on induction.

Important Term

skepticism: The epistemological view that what others regard as knowledge is dubitable.

Suggested Reading

Hume, *An Enquiry Concerning Human Understanding*.
———, *A Treatise of Human Nature*, conclusion to book 1.
Randall, *The Career of Philosophy*, vol. 1.

Questions to Consider

1. Is induction really irrational?

2. Using Hume's categories, what kind of knowledge is represented by his own argument?

Kant's Copernican Revolution

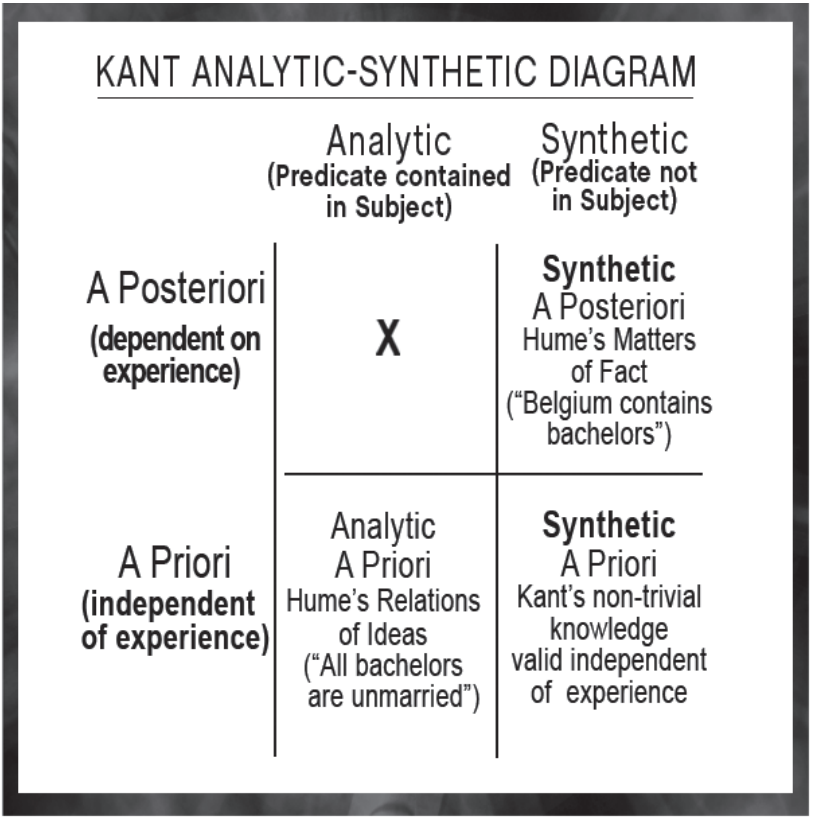
Lecture 8

In Kant, we find the great advance in ascribing to mind an active function that, for the next 200 years of philosophy, people will try to understand … but it also puts a new barrier between the mind and things in themselves.

Immanuel Kant was perhaps the greatest of modern philosophers. His first problem was to find an answer to David Hume, without which, he recognized, neither science nor philosophy could claim any general knowledge of reality. In forging an answer, Kant changed philosophy forever by arguing that the human mind doe.s not passively receive sense experience but actively constructs it.

Immanuel Kant was one of the foremost Enlightenment thinkers.

If our cognition passively receives information from the world, then Hume would be right that nothing can be known about the world independent of experience, hence universally or necessarily. But if our cognition actively organizes its sensations into what we call the objective world—if our experience of the world is partly the product of our mind—then we could have universal and necessary knowledge, including knowledge of what we have not experienced yet, for we would know that all experienced objectivity must conform to the mind's categories of organization. Substance, causality, space, and time are features of our cognition: the way our mind knows. We know all future experience must fit them. Thus we have at least some necessarily true knowledge of all experience, and Hume has been outflanked. ■



Name to Know

Kant, Immanuel (1724–1804): One of the greatest and most influential philosophers of Western history. After a career as a mathematical physicist (he contributed to the formation of the nebular hypothesis), he wrote three major works: *Critique of Pure Reason* as an answer to David Hume's skepticism, *Critique of Practical Reason* to found the ultimate law of morality, and *Critique of Judgment* to form the objective basis of critical aesthetics. He thereby changed the theory of knowledge, ethics, and aesthetics forever and gave German philosophy a new start.

Important Term

transcendental: A term of art in Immanuel Kant and philosophies related to his, referring to the activity of the mind in shaping experience a priori.

Suggested Reading

Kant, *Critique of Pure Reason.*
———, *Prolegomena to Any Future Metaphysics*.
Randall, *The Career of Philosophy*, vol. 2.

Questions to Consider

1. How does Kant save causality from Hume?

2. What makes Kant's view different from Berkeley's?

Kant and the Religion of Reason

Lecture 9

Kant changed everything. Everyone since has had to answer Kant, and not just in philosophy—in psychology, even in biology. … Wherever you see someone saying that the human mind, in its task of knowing things, is actively structuring what it knows … you are listening to Kant.

Immanuel Kant's answer to David Hume comes at a price. How can a deterministic science be compatible with free will, ethics, and religion? We can only experience and know appearances—how the world appears to our sensation and cognition—not reality independent of our experience, or "things in themselves." Of the latter, we can know nothing. That means as well that we cannot know, nor can science ever investigate, things that do not appear in experience, such as whether my mind or soul exists independent of nature (and hence is immortal), whether it has free will, or whether God exists. Reason inevitably and always tries to know such things, but it is in principle impossible. This is the tragedy of Reason. But Kant turned this debility to his advantage. For if science can never prove the soul, free will, or God, it can also never prove them false. This is the different path taken by the German Enlightenment. Such issues are forever beyond the reach of inquiry; thus we are free to believe in them without fear of contradiction. Indeed, for practical reasons, to live a moral life, we must believe them. Practical ethical necessity is then free to posit free will, the soul, and God, without violating rational inquiry. ■

Important Terms

critical idealism: Immanuel Kant's name for his version of idealism, which accepts that nonmental things in themselves cause our experience, but our experience is structured a priori by our own cognitive activity. Also sometimes called transcendental idealism.

deism: A religious philosophy modeled on a minimal Christianity, with beliefs in moral rule, the soul, an afterlife, and God, lacking any other theology or ritual practice. Jean-Jacques Rousseau and Immanuel Kant were deists.

Suggested Reading

Kant, *Religion within the Limits of Reason Alone.*

Randall, *The Career of Philosophy*, vol. 2.

Questions to Consider

1. In what way does Kant remain a Humean skeptic?

2. What kind of God or religion is thereby defended by Kant?

The French Revolution and German Idealism

Lecture 10

The tremendous excitement that was caused by German idealism … was the belief that with an evolutionary model, we could give an account of Nature that actually rested in an account of mind, self, God, or freedom, instead of the other way around.

The French Revolution of 1789 was the defining event of the late 18th century. Young philosophers everywhere were inspired by it, and nowhere was this more true than in still-feudal Germany. A great ferment, the German Enlightenment sprung up around Immanuel Kant, along with a renaissance of interest in Baruch Spinoza and nationalistic worries about Germany's "backwardness." In Germany, the French and English Enlightenments were admired yet feared for their threat of skepticism about religion.

In Germany, the French and English Enlightenments were admired yet feared for their threat of skepticism about religion.

The most influential German idealists of this era were **Johann Gottlieb Fichte** and **Friedrich Wilhelm Joseph von Schelling**. Fichte turned Kant's philosophy into a metaphysical idealism, claiming that all reality is posited by the action of the self. Then Schelling, the young friend of Georg Wilhelm Friedrich Hegel, beginning with Spinoza's pantheism, created a mystical philosophy of the self-development of God through human freedom, or a dynamic Spinozism. For both, and for the young Hegel, the aim was to create a metaphysics in which human freedom, and hence the action of spirit or mind, is fundamental rather than something that must somehow be added to a scientific or physical account of being. ■

Names to Know

Fichte, Johann Gottlieb (1762–1814): A German philosophy professor, Fichte regarded himself as finding the true meaning of Immanuel Kant's work and thereby making a bridge between Kant's critical idealism and German idealism. Fichte was also the author of the *Addresses to the German Nation*, one of the formative works of European nationalism.

Schelling, Friedrich Wilhelm Joseph von (1775–1854): The precocious younger friend of Georg Wilhelm Friedrich Hegel who produced the version of German idealism closest to a naturalistic theory.

Suggested Reading

Fichte, *The Science of Knowledge*, first introduction.

———, *The Vocation of Man.*

Randall, *The Career of Philosophy*, vol. 2.

Schelling, *Philosophical Inquiries into the Nature of Human Freedom.*

Questions to Consider

1. How does Fichte turn Kant's critical idealism into absolute idealism?

2. What is Schelling's Absolute, and what does it do?

Hegel—The Last Great System

Lecture 11

Hegel's influence was incomparable. … He had presented a total system of the world, which included not only physics and the sciences, religion, ethics, but even a history of the world; a total system that was supposed to be ultimately religious, while at the same time actually describing in scholarly detail what had happened in the history of the world. It was truly a theory of everything—not only everything metaphysical, but everything historical. We could really say this was the last great system, and the rest of the 19th century was a period of dealing with Hegel, either pro or con.

As the greatest and most influential of the German idealists, **Georg Wilhelm Friedrich Hegel** also aimed to construct a **metaphysics** in which freedom was fundamental. But unlike Johann Gottlieb Fichte and Friedrich Wilhelm Joseph von Schelling, Hegel insisted that history must be integrated into the metaphysical scheme.

Hegel synthesized the idealism of Fichte and pantheism of Schelling with history: The history of the world is the story of God's coming to self-consciousness. Evolution of any kind occurs by dialectic, a process in which the formation of any unity that is less than the Whole generates or leaves opposition, which forces the arising of a more comprehensive unity that incorporates both. All partial, incomplete historical perspectives must fall and lead to the perspective of the Whole, that is, of God. Only the Whole—the integrated system of God, history, and nature—is true. Hegel created the last great philosophical system, trying to address every philosophical question within one consistent outlook. In a sense, Hegel sought to combine rationalism and mysticism, giving a rational account of the Whole. ■

Hegel sought to combine rationalism and mysticism, giving a rational account of the Whole.

Name to Know

Hegel, Georg Wilhelm Friedrich (1770–1831): The most influential philosopher of the 19th century, he constructed an idealist system in which Spirit or God actualizes itself through the course of human history through progressive revelations until the true science of Spirit, the perspective of the Whole, is eventually revealed.

Important Terms

holism: Generally, the view that the character of individual elements, or their appearances, is dependent on their location in a larger system. In this sense, gestalt psychology and Georg Wilhelm Friedrich Hegel's logic and metaphysics are holistic. In recent analytic philosophy, it more narrowly means Willard Van Orman Quine's view that theories confront experience as a whole, so that disconfirming observations leave it indeterminate as to what part of the theory to replace.

metaphysics: The subfield of philosophy that investigates the ultimate nature of reality, the composition of all things, and the existence of God. Within metaphysics, the inquiry into being itself is called ontology.

Quick German Primer

Begriff: Notion. A notion of a thing in its truth is the concept of a thing as dynamically part of the evolution of spirit seen properly by speculative philosophy.

Geist: Spirit, or mind.

Moralität and *Sittlichkeit*: Hegel distinguished these two particular notions. *Moralität* means moral duties and could be identified with Kant's famous notion of moral duty. *Sittlichkeit* is the notion of a moral community, a custom: the morally embedded rules of a community with a given history and a set of practices.

Vernunft: Reason.

Verstand: Understanding or reflection.

Suggested Reading

Hegel, *Phenomenology of Spirit*.
Pinkard, *Hegel.*

Questions to Consider

1. What is the difference between Reason (*Vernunft*) and Understanding (*Verstand*)?

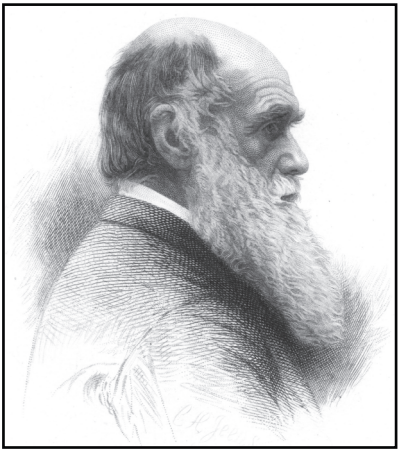
2. How is the Absolute related to history?

Hegel and the English Century

Lecture 12

In the 19th century, once science begins to work its engineering magic, and the Industrial Revolution begins, and peasants start moving in throngs from the impoverished farmlands into cities to work in factories, and scientists creating new theories every day, and radicals are trying to improve society on the basis of those theories—once that happens, the modern age is no longer simply the idea in the mind of a Descartes, a Kant, a Rousseau; it's now a living reality for more and more people. From the point of view of most philosophers, this whole development was incredibly positive; it was the fulfillment of the hope of the 18th century to create a society ruled not by suspicion, superstition, tradition, custom, and fear, but rather a society governed by science, reason, all in the context of individual freedom.

The Industrial Revolution, the rise of European imperialism, and the philosophy of Georg Wilhelm Friedrich Hegel led to the 19th century's great concern: history and progress. England led the way economically, scientifically, and philosophically. Hegel's theory and German romanticism impacted the most important British philosophies of the century, particularly **utilitarianism** and liberalism.



English naturalist Charles Darwin.

After Hegel, many other thinkers created historical schemes to account for the development of the modern world. Frenchman Auguste Comte and Englishman **Herbert Spencer** formed comprehensive historical systems. The recognition that the world was rapidly changing created a self-consciousness about modernity. Romanticism, strong in both Germany and

England, encouraged thinkers to chart the concrete, the empirical, and the historical, but in the context of grand evolutionary schemes. England became the center of utilitarianism or the scientific morality of **Jeremy Bentham** and James Mill and the liberalism of **John Stuart Mill**. In the second half of the century, a new way of considering history was introduced with two great scientific discoveries: James Clerk Maxwell's 1864 discovery that light, electricity, and magnetism were one unified phenomenon and most important, **Charles Darwin**'s 1859 publication of *On the Origin of Species by Means of Natural Selection*. Ensuing debates about whether natural selection could account for novelty were influenced by the French philosopher **Henri Bergson** and his theory of time. ■

English logician John Stuart Mill.

Names to Know

Bentham, Jeremy (1748–1832): The inventor of utilitarianism, or the ethical doctrine that we should act to maximize general happiness, which he applied to British legal traditions.

Bergson, Henri (1859–1941): The French thinker who argued that the mathematical treatment of time was mistaken, as it construed durations as extensionless points. His metaphysics included a fundamental force for creativity in the universe, the élan vital.

Darwin, Charles (1809–1882): The naturalist who invented the modern theory of the evolution of species through natural selection. He is author of *On the Origin of Species by Means of Natural Selection* and *The Descent of Man*, among other works.

Mill, John Stuart (1806–1873): The most important English philosopher of the 19th century, he made major contributions to logic—although these became the target for a later generation of logicians—and political and ethical philosophy. His works on utilitarian ethics set the standard for that view, and his analysis of liberty in a republican society remains today the standard view. Mill was also an early advocate for the equality of women.

Spencer, Herbert (1820–1903): One of the most prominent of 19th-century English philosophers, he produced a theory of the evolution of all civilization. Spencer was author of the phrase "survival of the fittest."

Important Terms

positivism: Also known as logical positivism or logical empiricism. The term "positivism" was invented by Auguste Comte in the 19th century to refer to the modern scientific temper of that century but more famously was adopted by the early 20th-century philosophers of the Vienna Circle, like Moritz Schlick, Otto Neurath, and Rudolf Carnap, for philosophical theory that regarded existential or factual questions as exhausted by science, and philosophy's job as logic and the clarification of scientific language.

utilitarianism: The ethics of utility, which holds that those acts are good whose consequences maximize social happiness, famously developed by Jeremy Bentham, James Mill, and his son John Stuart Mill.

Suggested Reading

Passmore, *A Hundred Years of Philosophy.*

Randall, *The Career of Philosophy*, vol. 2.

Questions to Consider

1. Are there limits to the kind of novelty and value that can be created by random processes, like natural selection or the free market?

2. Does history have necessary stages that it must go through?

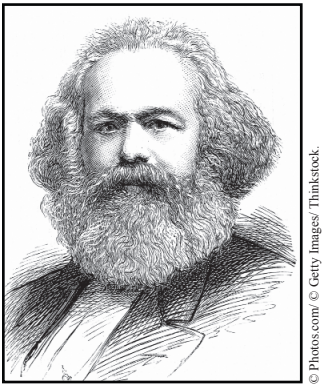
The Economic Revolution and Its Critic—Marx

Lecture 13

The bourgeoisie, historically, has played a most revolutionary part. The bourgeoisie has put an end to all feudal, patriarchal, idyllic relations. It has pitilessly torn asunder the motley feudal ties that bound man to his "natural superiors" and has left remaining no other nexus between man and man than naked self-interest, than callous "cash payment."

—Karl Marx

The socially wrenching birth of industrial capitalism provoked many critics, and many socialist movements opposed the turning of peasants to wage laborers in factories, moving according to the laws of supply and demand, volatilizing traditional social life, and throwing up new fortunes overnight. The most influential was that of a young German follower of Georg Wilhelm Friedrich Hegel, whose thought would become the greatest challenge to Western liberalism in the 20th century: **Karl Marx**.



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Karl Marx's socialist philosophy was the basis for later Communist practice.

Marx and his collaborator **Friedrich Engels** adopted Hegel's dialectical account of historical evolution but placed it inside economic materialism and regarded it as a science. They wrote that human history is determined by the struggle between economic classes and fueled by changes in the technologies of production. Capitalism is the height of the alienation of human beings from their true nature as producers, for the capitalist owns what the worker makes. But history is progressive, it must pass through inevitable stages, and capitalism will ignite a worker's revolution that will usher in a classless society and hence the end of historical evolution. Marx's critique of capitalism and vision of Communism went unapplied until 1917 in Russia. While they never inspired revolutions in the most advanced countries as he

predicted, his notion of scientific social critique, his analysis of alienation, and his dialectics of history had widespread impact among intellectuals in the 20th century. ■

Names to Know

Engels, Friedrich (1820–1895): The longtime collaborator of Karl Marx whose father's business supported the two radicals for many years. He also wrote independently of Marx, including the books *Anti-Dühring*; *Socialism: Utopian and Scientific*; and most importantly, *The Origin of the Family, Private Property, and the State*.

Marx, Karl (1818–1883): An early left Hegelian, Marx produced the most scientific version of socialism based on Georg Wilhelm Friedrich Hegel's dialectic. His theory eventually became the basis for all forms of Communism in the 20th century, beginning with the Russian Revolution.

Important Term

historicism: Generally, the view that some property changes historically; but most famously, the view that norms, like truth or moral goodness, are relative to historical period. Karl Popper famously accused Georg Wilhelm Friedrich Hegel and Karl Marx of historicism.

Suggested Reading

Marx with Engels, *Economic and Philosophic Manuscripts of 1844*.

———, *Manifesto of the Communist Party*.

———, Preface to *A Contribution to the Critique of Political Economy*.

Questions to Consider

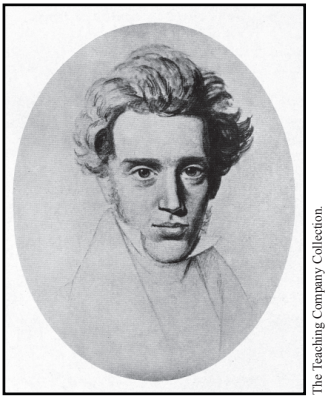
1. What is the relation of consciousness and material life?
2. What is alienation, and how does capitalism cause it?

Kierkegaard's Critique of Reason

Lecture 14

Kierkegaard loathed Hegel; he is one of the clearest examples of the anti-Hegelian reaction of the mid-19th century. Kierkegaard once famously quipped that "If Hegel had written his whole *Logic*," one of the crucial works of Hegel, "and in the preface disclosed the fact that it was merely a thought experiment," then Hegel "would have been the greatest thinker than has ever lived; as it is he is merely comic." That's about the worst put-down one can hear of one philosopher by another.

Søren Aabye Kierkegaard was the most prominent critic of rationality in modern philosophy and was an important influence on later **existentialism**. He found Georg Wilhelm Friedrich Hegel's attempt to integrate faith and Reason with individual and community, all in a grand unity, completely wrongheaded. Kierkegaard claimed that human life is marked by discontinuity between differing ultimate perspectives that cannot be integrated, and among which we must simply choose. These are the aesthetic, or sensual; the rational; and the religious.



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Danish philosopher and theologian Søren Aabye Kierkegaard.

Kierkegaard wrote that rationality is fundamentally social, but religion is a matter of the individual's relation to the Absolute. The name of that relation is faith, and faith is literally irrational and asocial: The knight of faith cannot explain or justify herself. For Kierkegaard, the role of philosophy is to bring us to the point of recognizing the mystery of faith, not to explain it. Kierkegaard remains the most radical philosophical critic of Reason itself. His belief in the opposition of the aesthetic, social, and religious led him to a peculiar literary vocation, in which he wrote from different perspectives under pseudonyms. He remains one of the most interesting writers in the history of philosophy. ■

Name to Know

Kierkegaard, Søren Aabye (1813–1855): A religious philosopher who was one of the early influences on existentialism, Kierkegaard wrote a voluminous literature of philosophical reflection under pseudonymous authorship. He is the most intelligible critic of Reason, considering faith to be intrinsically irrational.

Important Term

existentialism: The philosophical movement focused on the analysis of individual existence and the individual's thought and responsibility. Søren Kierkegaard and Friedrich Nietzsche were 19th-century sources of what become existentialism in the 20th century.

Suggested Reading

Kierkegaard, *Fear And Trembling.*
———, *The Point of View for My Work as an Author.*

Questions to Consider

1. Distinguish the ethical, the aesthetic, and the religious.

2. What is the knight of faith, and how is he different from the knight of infinite resignation?

Nietzsche's Critique of Morality and Truth

Lecture 15

Nietzsche was virtually the first major intellectual to see, or at least to write and say out loud, in the second half of the 19th century that Western society … was becoming more and more secularized.

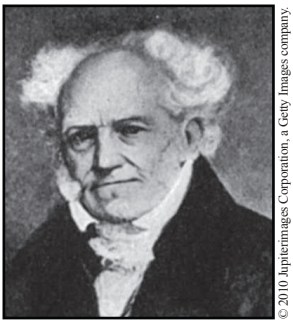
Friedrich Nietzsche was the most radical critic of Judeo-Christian, and to some extent Greek, sources of Western civilization. A student of ancient languages, he believed both classical philosophers and Western religious traditions had abandoned the healthy aristocratic values of the ancient world in favor of a life-denying idealism. In his philosophy, Judaism and Christianity endorse a "slave ethics" that denies natural instincts and the power to create in favor of the next world. Nature is the only world, and it embodies the will to power, the sheer will to produce, a notion he took from **Arthur Schopenhauer**.

Nietzsche did not, as some thought, endorse power in the sense of domination; for him, power is the creative expression of a thing's nature. He was the earliest analyst of the growing secularism of the modern age, famously declaring that "God is dead," meaning that humans who had invented God were now turning from their creation. Nietzsche asked deep questions about all civilizations: What are

Was Nietzsche a Nihilist?

Nietzsche's philosophy is somehow associated with nihilism. Nihilism can be defined as the rejection of all values, the belief that nothing has any value. Nietzsche was in fact not a nihilist; he claimed that it is Judaism and Christianity that are nihilistic because they devalue humanity and Nature and life. From Nature's point of view, Nietzsche is an atheist: There is nothing outside this world of Nature; there is no God outside this world. From his perspective, anyone who says this world is a mere precursor to the next; the true world is someplace else; this one is a mere shadow or sham—that person is a nihilist, because they are disparaging the reality and value of things in this world.

the conditions that will maximize the power and health of a culture? What makes a culture great? His greatest question was, what values would Western humanity adopt to replace the withdrawing Judeo-Christian God? Writing feverishly in a life of chronic illness, he became insane at the age of 45 and died at 56. ■



Arthur Schopenhauer influenced existentialism and Freudian psychology.

Names to Know

Nietzsche, Friedrich (1844–1900): The most radical philosophical critic of the Judeo-Christian tradition, and arguably of morality itself. Trained as a student of ancient languages, he identified with pre-Christian ancient values. Chronically ill and fated to become insane at age 45, Nietzsche cut a tragic figure, writing voluminously and brilliantly.

Schopenhauer, Arthur (1788–1860): Author of a philosophy of pessimism that borrowed from Immanuel Kant the distinction of appearance and things in themselves but made the later will: sheer nonrational striving or power.

Suggested Reading

Nietzsche, *Beyond Good and Evil.*
———, *The Gay Science.*
———, *On the Genealogy of Morals.*

Questions to Consider

1. Why was morality invented?

2. What would it mean to go "beyond good and evil"?

Freud, Weber, and the Mind of Modernity

Lecture 16

For both Freud and Weber, modern science, equality, freedom, and endless progress—however good they are—bring with it a cost: guilt, bureaucratic control, and alienation. In modernity, every silver lining has a cloud around it. We may say that they put the final nails in the lid of Hegelian optimism.

Germans were not the only intellectuals to create global theories of modernity, of the nature of the new society that was developing in the 19th and 20th centuries. English, French, and Scottish thinkers had preceded them in that endeavor in the 18th century, and later the Englishman Henry Sumner Maine and the Frenchman Émile Durkheim made crucial contributions. But it was the Germans—notably Georg Wilhelm Friedrich Hegel, Karl Marx, Friedrich Nietzsche, **Sigmund Freud**, and **Max Weber**—whose theories took a radical form and became the most crucial in the discussion of the modern age.

Prints and Photographs Division, Library of Congress.

Sigmund Freud, the inventor of psychoanalysis.

Freud and Weber did not have the philosophical breadth of Hegel, nor the extremism of Marx and Nietzsche. But they were social-scientific theorists whose global interests led them to press their theories to the widest significance. In his psychoanalytic writings, Freud gave a general picture of the human psyche in permanent conflict. In his later work, Freud applied his psychoanalytic theory to the development of civilization, diagnosing there a continual increase of guilt and discontent. Weber was one of the great German sociologists who tried to account for the development and direction of the modern world. He argued that with the freedom, equality, and rationality of modernity comes an inevitable sense of alienation. Both Freud and Weber diagnosed a structural downside to modernity, and both were taken up by later philosophers. ■

Freud's Theory of the Unconscious Mind

Sigmund Freud was a medical doctor and psychiatrist whose first work of genius was *The Interpretation of Dreams* (1900), which argued that dreams reveal the workings of an unconscious mind that drive consciousness. His theory held that our consciousness is not all there is to our mind. Consciousness is one system in the mind, but there is an unconscious mind; and in that unconscious mind there are the energies driven by instincts, and especially by sex. Freud shocked the world by claiming that even infants have a rudimentary form of sexual desire.

The ego, or self, must defend itself from two inner enemies, or at least competitors: the instincts from the unconscious on the one hand, which are attacking the ego; and the superego, which is simply the internalized censorial voice of our parents. The instincts that fuel our lives and are, in a sense, the basis for everything are dangerous to the ego; the ego has to resist them through a variety of defense mechanisms, while expressing them in sublimated or displaced forms.

Names to Know

Freud, Sigmund (1856–1939): The Austrian inventor of psychoanalysis, a psychiatric theory emphasizing unconscious drives and internal mental conflict. His work not only created a new form of psychological theory and treatment but has a continuing impact on cultural and literary analysis.

Weber, Max (1864–1920): He was perhaps the greatest of a long line of German social theorists of the modern age. He authored *The Protestant Ethic and the Spirit of Capitalism*, which found cultural-religious dispositions to lie behind the emergence of capitalist modernity.

Suggested Reading

Freud, *Civilization and Its Discontents.*
Weber, *The Protestant Ethic and the Spirit of Capitalism.*
———, "Science as a Vocation."

Questions to Consider

1. How, for Freud, is guilt increased by the suppression of aggressive instincts by advancing civilization?

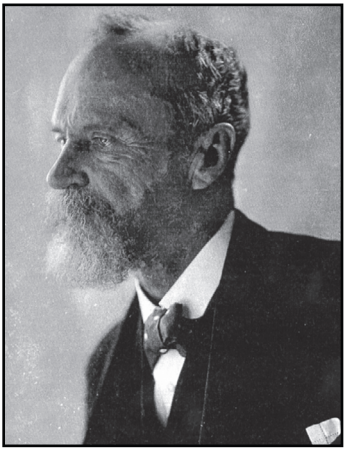
2. Why, for Weber, is alienation the inevitable cost of freedom and equality?

Rise of 20th-Century Philosophy—Pragmatism

Lecture 17

In the late 19th century, three schools of thought began to develop that would set the tone for much of 20th-century philosophy, so much so that they would eventually harden into subcultures that, during the mid-20th century, rarely spoke across party lines. Rather than opposing each other like three different baseball teams—as in much of the history of philosophy, schools of thought opposed each other—they became more like a baseball, football, and a soccer team, each playing its own game, addressing its philosophical questions in its own particular language, to which the other teams had nothing to say because they were playing a different game.

The late 19th century saw the beginnings of three schools of thought that would lay the groundwork for most of 20th-century Western philosophy. They all rebelled against some combination of idealism, historicism, and especially psychologism, the view that logic and mathematics are inductions from experience. For the analytic school, the concepts of logic are objective, independent of any psychological or naturalistic foundation. For the continental school of phenomenology, such meanings are constituted transcendentally in consciousness. For the third tradition, the American school, meaning was established in public action.



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American pragmatist William James.

Pragmatism is the most famous American contribution to world philosophy, and its most famous exponents were **Charles Peirce** and **William James**. Peirce argued that all ideas, including perceptions, are signs produced by the mind, none of which are immediately related to their

objects. The way to fix the meanings of our words and ideas is by their role in the guidance of conduct. He expanded this to a notion of truth. His friend William James made this doctrine famous, claiming that truth is a matter of "what works." ■

Names to Know

James, William (1842–1910): One of the Americanist philosophers, he made contributions to psychology (his *Principles of Psychology* was a major work of 19th-century scientific psychology) and to the philosophy of religion but is best remembered as the most prominent exponent of pragmatism. Late in his career, he created a pluralist metaphysics called radical empiricism.

Peirce, Charles Sanders (1839–1914): The inventor of pragmatism. A brilliant philosopher highly familiar with natural science, mathematics, and logic. He remains the source of much of the Americanist tradition of philosophy.

Important Terms

American philosophy: Also known as Americanist philosophy or classical American philosophy, this indigenous American philosophical tradition was practiced from the mid-19th century until the 1930s, when analytic and continental philosophy became dominant in the United States. Its most famous doctrine is pragmatism, and its most famous exponents are Charles Sanders Peirce, George Herbert Mead, William James, John Dewey, George Santayana, and Josiah Royce.

pragmatism: Originally a theory of meaning, it held that the meaning of a term or claim is its role in the guidance of conduct. It is also a theory of truth, although pragmatists differ on its precise formulation: The truth of a claim is its verification, or the satisfactoriness of actions that presume it, or its acceptance by the community of inquirers in the long run. In more global terms, pragmatists accept that meaning and mind arise in the context of social action.

Suggested Reading

James, *Pragmatism.*

Murphy, *Pragmatism.*

Peirce, "How to Make Our Ideas Clear."

Questions to Consider

1. Why should we take action as the domain in which meaning is evident?

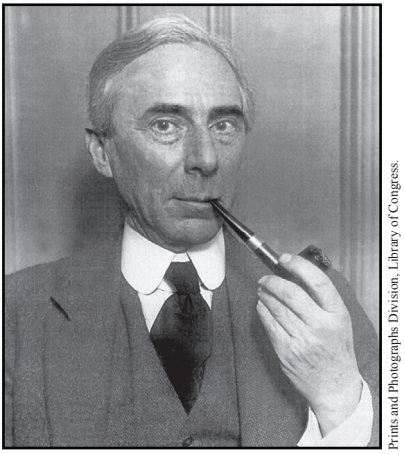
2. Is pragmatism's notion of knowledge and truth antirealist or relativist? Does it undermine the objectivity of knowledge?

Rise of 20th-Century Philosophy—Analysis

Lecture 18

Bertrand Russell … embodied all the new elements of analytic philosophy … he was the patron saint of early analytic philosophy. He embodied the rejection of idealism, historicism, and psychologism; he engaged in the analysis of common usage and logically perspicuous notation to eliminate philosophically misleading expressions.

Analytic philosophy grew out of two roots: the reaction of British philosophers against the systematic idealism of Georg Wilhelm Friedrich Hegel and the development of a new theory of logic, initiated by the German **Gottlob Frege**. In trying to explain the logical basis of mathematics, and hence to define number in terms of logical ideas, Frege was forced into the philosophy of language to clarify linguistic meanings.



Prints and Photographs Division, Library of Congress.

Bertrand Russell, English analytic philosopher and pacifist.

Frege's work influenced **Bertrand Russell**, whose theory of descriptions attempted to show that many philosophical problems, answered by elaborate metaphysical schemes, were actually the result of logical mistakes in the understanding of words. To this **George Edward Moore** added a defense of common sense and a refutation of skepticism. Analytic philosophy attempted to formulate a new logic, philosophy of language, and philosophy of science that would dissolve many philosophical problems. It would eventually become the dominant philosophical approach in all English-speaking countries, including the United States. ■

Names to Know

Frege, Gottlob (1848–1925): As the foremost formulator of a non-Aristotelian logic in the late 19th century, Frege made many contributions to both 20th-century logic and analytic philosophy of language. He had a major impact on Bertrand Russell, Ludwig Wittgenstein, and Edmund Husserl.

Moore, George Edward (1873–1958): One of the Cambridge founders of the analytic philosophical tradition, along with Bertrand Russell. His major contributions were, on the one hand, a series of essays showing skepticism and idealism to rest on nonsensical arguments, and on the other, a major work in ethics, *Principia Ethica*, which defended a view of the good as a nonnatural property.

Russell, Bertrand (1872–1970): The most prominent of the early English analytic philosophers, he was a logician, metaphysician, epistemologist, and political philosopher who wrote widely. He was also a famous pacifist and activist.

Important Term

analytic philosophy: Sometimes called Anglo-American philosophy, the predominantly English-language philosophy of the past century stemming from figures such as Gottlob Frege, Bertrand Russell, George Edward Moore, Rudolf Carnap, Ludwig Wittgenstein, and Willard Van Orman Quine that puts a premium on linguistic clarity and the relation between philosophical claims and either logic or science.

Suggested Reading

Floyd and Shieh, *Future Pasts.*

Frege, "On Sense and Reference," "Function and Concept," and "On Concept and Object," in *The Frege Reader*.

Passmore, *A Hundred Years of Philosophy.*

Weitz, "The Refutation of Idealism," "A Defence of Common Sense," and "Descriptions," in *Twentieth-Century Philosophy.*

Questions to Consider

1. What kind of existence do numbers, or mathematical objects in general, have?

2. Does the real include not only physical particulars, but relations and universals?

Rise of 20th-Century Philosophy—Phenomenology

Lecture 19

When Husserl looks back at Locke, Berkeley, and Hume, what he sees is an attempt to describe experience, but that has too many presuppositions behind it. … Husserl wants not to impose subsequent mathematical, scientific, or naturalistic concepts on the fields of evidence, the actual experience we have; he doesn't want to parse them into individual ideas or perceptions. Instead, he wants to describe the flowing life of consciousness as it occurs.

Like Gottlob Frege, **Edmund Husserl** believed that logic and mathematics require a theory of meanings or concepts that is not based in empirical experience, that is, experience caused by natural interactions. Husserl's aim was to create a nonempiricist, nonnaturalist ideal clarification of the meanings that compose experience—experience understood not as what happens to a human being in nature but as a pure field of evidence.

Husserl seemed to liberate the investigation of lived experience from empiricism, psychology, and natural science.

Husserl's analysis of experience was holistic, not atomistic like that of the early empiricists. He defined the new science of **phenomenology** as an ideal, nonempirical science that introspectively clarifies the essential features of types and objects of experiences. As such, all science, all philosophy, and even mathematics depend on phenomenology, because all inquiry depends on evidence presented to consciousness. The impact for **continental philosophy** was enormous: Husserl seemed to liberate the investigation of lived experience from empiricism, psychology, and natural science. ■

Name to Know

Husserl, Edmund (1859–1938): This German philosopher of arithmetic and logic took a major turn to become the foremost philosopher of experience in the early 20th century. He invented the science of phenomenology as a nonnaturalistic, nonpsychological analysis of the meanings that arise in pure consciousness.

Important Terms

continental philosophy: Philosophies from mainland Europe in the past two centuries, stemming from figures such as Georg Wilhelm Friedrich Hegel, Edmund Husserl, Martin Heidegger, Hans-Georg Gadamer, Jean-Paul Sartre, Theodor Adorno, Maurice Merleau-Ponty, Jacques Derrida, and others, typically nonnaturalistic and hermeneutic in orientation.

phenomenology: This term was used by Georg Wilhelm Friedrich Hegel for his account of the dialectical progression of human experience, by Charles Sanders Peirce for the study of the most general features of experience, but most famously by Edmund Husserl for his philosophical method of studying experience that brackets or ignores all questions of natural existence.

Suggested Reading

Husserl, *Cartesian Meditations.*
———, *The Crisis of the European Sciences.*
———, *Ideas Pertaining to a Pure Phenomenology*, vol. 1.
Kohák, *Idea and Experience.*

Questions to Consider

1. What is the difference between phenomenological and psychological introspection?

2. What is the relation between phenomenology and the sciences?

Physics, Positivism, and Early Wittgenstein

Lecture 20

The banishing of the ether and the substitution of relativistic formula for Newton's laws seem to imply … that science does not try to know the ultimate underlying entities that cause observable phenomena but merely create mathematical models for predicting observable phenomena.

From 1900 to 1930, the greatest revolutions in physics since the 17th century had a manifold effect on philosophy. Special relativity, then general relativity, then quantum mechanics, along with Hubble's discovery of the universe's expansion, completely remade the physical view of the world. This scientific revolution banished absolute space and time, the ether, and strict determinism from physics. The universe could no longer be pictured simply, and the invariances among natural events were now highly mathematical. The impact on philosophy was complex; the most famous and most influential response was positivism.

The new science fueled logical empiricism, or positivism, which argues that science mathematically coordinates and predicts sense data, rather than seeking underlying metaphysical realities. The goal of philosophy is then to create a logically clear language that will clarify the task of science. Such positivism was promoted by the Vienna Circle in the 1920s, which was organized by Moritz Schlick and included **Otto Neurath**, **Rudolf Carnap**, and Kurt Gödel. Separately, the young **Ludwig Wittgenstein** concluded that the only strictly true method of philosophy would be to rehearse the findings of science and then show that any further philosophical questions that arose were due to misunderstandings of language. ■

Names to Know

Carnap, Rudolf (1891–1970): A Viennese philosopher of logic and science and one of the moving forces behind the logical positivism of the Vienna Circle. His principle of tolerance and incipient pragmatism remained modern as positivism came under attack.

Neurath, Otto (1882–1945): One of the Vienna Circle positivists. He is famous for his metaphor that in epistemology and logic we are like seamen trying to fix a ship we are sailing in, since we can only use the knowledge we have while we work on the same.

Wittgenstein, Ludwig (1889–1951): This Austrian was perhaps the most influential philosopher of the 20th century. His early work in logic led to the *Tractatus Logico-Philosophicus*, which influenced the Vienna Circle. After leaving philosophy for many years, he returned to Cambridge to formulate a new philosophy of meaning as used in his *Philosophical Investigations*.

Suggested Reading

Carnap, *The Logical Syntax of Language.*

Wittgenstein, *Tractatus-Logico Philosophicus.*

Questions to Consider

1. What is the logical status of the arguments used to establish the logical picture of the world?

2. Can the verification criterion of meaning hold for all linguistic meaning?

Emergence and Whitehead

Lecture 21

Despite the growing influence of positivism, and its distaste for metaphysics … there was a tradition of speculative naturalistic metaphysics, largely inspired by responses to Darwin, starting in the late 19th century that climaxed in the 1920s.

Ever since Charles Darwin, some philosophers, including Henri Bergson, William James, and John Dewey, had tried to formulate a global evolutionary account of nature that included not only the physical and chemical, but also life and mind. While positivism was to become the dominant philosophy of science, two openly metaphysical interpretations of science continued this older tradition in the 1920s. **British emergentism** arose in the work of **Samuel Alexander**, **Conwy Lloyd Morgan**, and **C. D. Broad**, along with the American **Roy Wood Sellars**. The emergentists argued that complex systems of simple components can, by dint of their organization, exhibit properties not possessed by, and hence not reducible to, the components. Thus mental properties, while dependent upon neurology, are not reducible to neurology; biological properties cannot be reduced to chemical properties, nor chemical to physical properties.

Whitehead created a metaphysics of the ultimate processes and entities of nature that took relativity and the quantum into account.

At the same time, **Alfred North Whitehead**, a collaborator of Bertrand Russell, was the one 20th-century philosopher to attempt what the 17th-century philosophers had done: to create a metaphysical system that was consistent with physics and explained the place of mind, values, and God in such a universe. Whitehead created a metaphysics of the ultimate processes and entities of nature that took relativity and the quantum into account. He made the ultimate realities "actual occasions," events that undergo an internal process of development that integrates a multiplicity into a unity. Each occasion prehends all others, as with Gottfried Wilhelm Leibniz's

monads. The entire world process is the evolution of unity out of multiplicity, which is the creative act of God. Thus Whitehead created the most famous **process philosophy**. ■

Names to Know

Alexander, Samuel (1859–1938): An influential English philosopher, one of the British emergentists, and the author of *Space, Time, and Deity*.

Broad, C. D. (**Charlie Dunbar**; 1887–1971): A member of the British emergentists and the author of *Mind and Its Place in Nature*.

Morgan, Conwy Lloyd (1852–1936): This English psychologist was the moving force behind the British emergentists and the author of *Emergent Evolution*.

Sellars, Roy Wood (1880–1973): An American critical realist philosopher who also produced an evolutionary emergent metaphysics akin to that of the British emergentists. He is also father of the philosopher Wilfred Sellars.

Whitehead, Alfred North (1861–1947): A British mathematician by training, he collaborated with Bertrand Russell to compose the most important work of logic of the 20th century, *Principia Mathematica*, and went on to formulate a unique process metaphysics of reality that incorporated relativity and quantum theory.

Important Terms

British emergentism: A school of thought in the 1920s that proposed an alternative to mechanism and vitalism by which complex organization of components of one level (e.g., physical) yield novel, irreducible properties at a higher level (e.g., chemical). Its most prominent exponents were Samuel Alexander, Conwy Lloyd Morgan, and C. D. Broad.

process philosophy: Any philosophy that makes all reality and all forms or norms subject to a process of change. Most commonly applied to the work of Alfred North Whitehead but would also fit Henri Bergson and John Dewey, among others.

Suggested Reading

Blitz, *Emergent Evolution*.

Sherburne, *A Key to Whitehead's "Process and Reality."*

Whitehead, *Process and Reality.*

———, *Science and the Modern World.*

Questions to Consider

1. How can there be emergence if science's greatest successes seem to come from reductive explanation?

2. Do the simplest components of reality contain protomental properties, and if so, what is their effect?

Dewey's American Naturalism

Lecture 22

What Dewey sought more than anything else was a humanistic naturalism … to be a naturalist in such a way that the unique properties of the human mind, ethics, politics, aesthetics, … could be incorporated within his naturalism rather than declared irrational and impossible to account for, as with the positivists.

John Dewey was the most famous American philosopher of the early and mid-20th century. He was influenced early by Georg Wilhelm Friedrich Hegel, but like Karl Marx, he stood Hegel on his head, using Hegel's dialectic inside a Darwinian **naturalism**. Like Alfred North Whitehead and Henri Bergson, Dewey was a process philosopher. Beginning with psychology and the philosophy of education, he became systematic, applying his dynamic naturalism to virtually every area of philosophy, from science to logic to politics to aesthetics.

Dewey was also the most prominent philosopher of democracy, arguing that science and democracy are akin.

Dewey was also the most prominent philosopher of democracy, arguing that science and democracy are akin. He was famously associated with the American progressive movement. Like William James, Dewey was a genuinely public philosopher, lecturing and taking positions on the public issues of the day. For Dewey, philosophy does not seek the fixed foundations of knowledge or morality; it articulates the methods by which humans change their ideas and actions over time, toward greater integration of experience. ■

Name to Know

Dewey, John (1859–1952): The most prominent of the Americanist philosophers, Dewey made major contributions to philosophy, psychology, and education. He was politically active and associated with progressivism.

Important Term

naturalism: Strictly, the view that everything is natural or part of nature, so nothing is supernatural. As such, physicalism and materialism would be versions of naturalism, but the term has often been used more narrowly for views that do not equate the natural with the physical or material.

Suggested Reading

Dewey, *Art as Experience.*

———, *Experience and Nature.*

———, *Reconstruction in Philosophy.*

Questions to Consider

1. How do aesthetic values arise out of ordinary human experience?

2. What is the aim of philosophical reflection?

Heidegger's *Being and Time*

Lecture 23

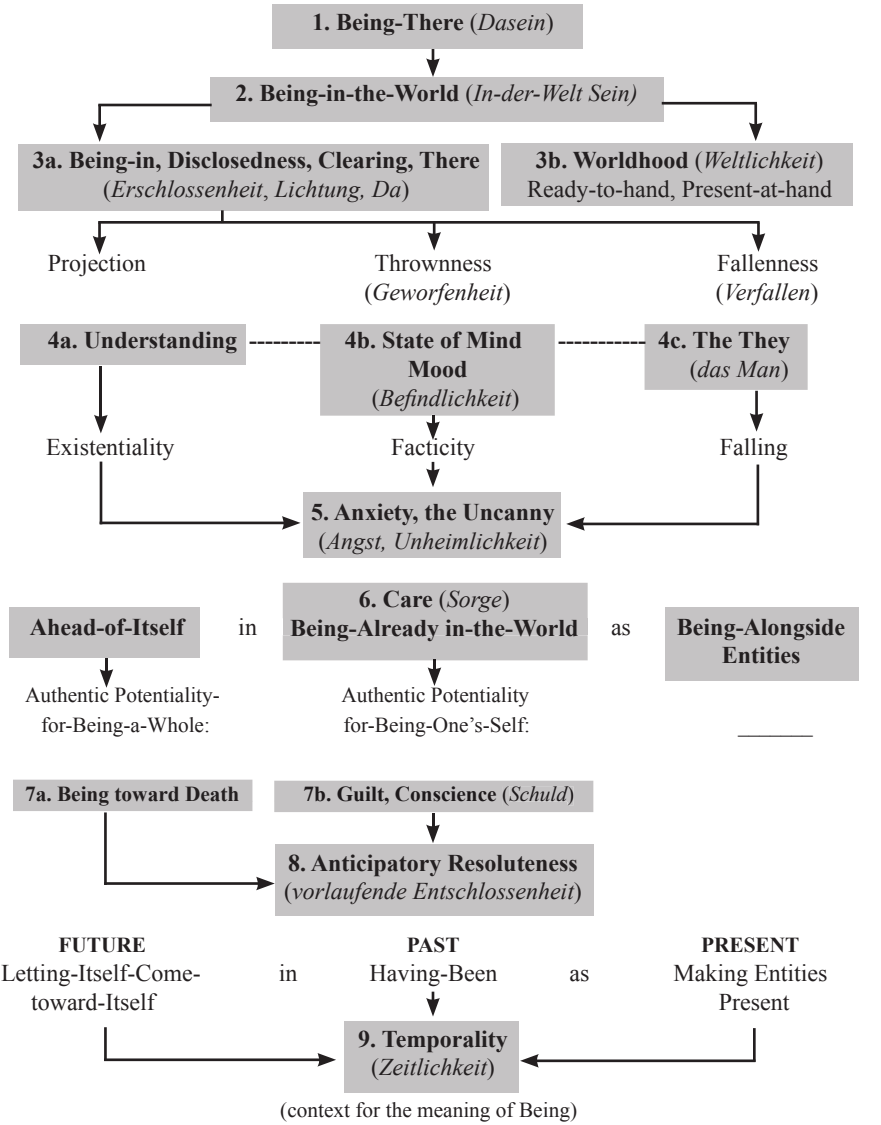
The result of Heidegger's analysis … was shattering. What Heidegger produced was a new kind of phenomenology of appearances as they present themselves in experience.

Martin Heidegger's *Being and Time* (1927) is one of the most influential books of 20th-century philosophy. In it, he aimed to determine the meaning of being itself through the method of Edmund Husserl's phenomenology. His approach was to begin by determining the meaning of that being for whom being is a question: human being, or in his terms, *Dasein*, translated as "being-there." He worked out an analysis of what is it like to be a human being, a finite creature, thrown into and vulnerable to the world, fundamentally anxious in the face of its inevitable guilt and death.

Heidegger created the basis for modern existentialism.

This philosophy was a rejection of Aristotelian substance, Cartesian mental substance, and Kantian and Husserlian transcendentalism. Heidegger put Husserl together with Søren Kierkegaard and Friedrich Nietzsche to forge a new kind of phenomenology that sought the meaning of human existence. In so doing, Heidegger created the basis for modern existentialism: All later existentialists trace their work to *Being and Time*. In his later work, Heidegger took a different direction, but throughout his career he was unfailingly provocative and the most influential continental philosopher of the century. ■

Heidedgger's Existential Analytic of *Dasein* in *Being and Time*



Name to Know

Heidegger, Martin (1889–1976): One of the most influential philosophers of the 20th century, he combined the work of Edmund Husserl's phenomenology with that of Friedrich Nietzsche and Søren Kierkegaard to formulate existential phenomenology. Later, after joining the Nazi Party in 1933 and supporting national socialism throughout the war, he promoted a quasi-mystical philosophy of attentiveness to being.

Suggested Reading

Heidegger, *Being and Time.*

Questions to Consider

1. What is the difference between being and beings?

2. What is anticipatory resoluteness?

Existentialism and the Frankfurt School

Lecture 24

Alienation was the natural theme of European thinkers during the greatest crisis of the 20th century. … The great theme of this time was the notion that human beings, the human self, is somehow alienated from its surroundings, overwhelmed by modern technologies, overwhelmed by social pressures, by mass culture, and it seemed to many that this was, of course, the worst of times; and that was not an unreasoning judgment.

Just before and during World War II, European philosophers lived the apocalypse, and their philosophies reflected that fact. Their thought, oddly enough, was dominated by prewar German ideas, particularly phenomenology, existentialism, psychoanalysis, and Marxism. The common current of these four systems was that the individual human subject is alienated from and by the social, cultural world, which forces the subject to abandon its own inner, authentic truth.

Two strains in particular were influential: French existentialism learned from Martin Heidegger but also brought Sigmund Freud and Karl Marx into play. The most famous philosophers in this school were **Jean-Paul Sartre**, **Maurice Merleau-Ponty**, **Albert Camus**, and **Simone de Beauvoir**. Another group of continental philosophers developed a unique strain of social criticism, a combination of elements based in Georg Wilhelm Friedrich Hegel, in Marx, and also in Freud. This school of thought was German neo-Marxism. It was seen most famously in the work of the Frankfurt School thinkers **Theodor Adorno** and **Max Horkheimer**—and much later, in

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French existentialist Albert Camus.

the work of **Herbert Marcuse**, who strongly influenced the American new left in the 1960s. Each of these new strains came to bleak conclusions about the human prospect, as befitted their era. ■

Names to Know

Adorno, Theodor (1903–1969): One of the prominent thinkers of the neo-Marxist Frankfurt Institute for Social Research, which combined the thought of Karl Marx, Georg Wilhelm Friedrich Hegel, and Sigmund Freud. Adorno is the author of *Negative Dialectics* and, with Max Horkheimer, *Dialectic of Enlightenment*.

Camus, Albert (1913–1960): The French existentialist author of *The Stranger*, *The Rebel*, and *The Plague*. After being rejected by the French postwar intellectual establishment because of his political moderation, he received a deserved rehabilitation as a major moral writer in the late 20th century.

de Beauvoir, Simone (1908–1986): One of the group of French existentialists, she was the author of *The Ethics of Ambiguity.* She also contributed one of the major works of midcentury feminism, *The Second Sex.*

Horkheimer, Max (1895–1973): A member of the Frankfurt Institute before the Second World War, this philosopher was the author of *A Critique of Instrumental Reason* and a collaborator with Theodor Adorno on *Dialectic of Enlightenment*.

Marcuse, Herbert (1898–1979): An associate of the Frankfurt Institute of Social Research, he became most famous later in his career as the theorist of the American new left in the 1960s, through his combination of neo-Marxist and Freudian social analysis.

Merleau-Ponty, Maurice (1908–1961): One of the circle of Second World War existentialists, Merleau-Ponty was perhaps the superior phenomenologist of the group, his works (in particular, *The Phenomenology of Perception*) having remained compelling far longer than those of Jean-Paul Sartre and others.

Sartre, Jean-Paul (1905–1980): The French philosopher who adapted Martin Heidegger's *Being and Time* into French existentialism. A member of the French resistance and a voluminous writer of essays, books, and plays, Sartre was perhaps the most famous philosopher in the world in the two decades after the Second World War.

Suggested Reading

Adorno and Horkheimer, *Dialectic of Enlightenment.*

Barrett, *Irrational Man*.

Marcuse, *One-Dimensional Man*.

Sartre, "Existentialism as a Humanism."

Questions to Consider

1. What ethics can be drawn from existentialism, other than a commitment to be fully conscious rather than in bad faith?

2. How can it be that enlightenment is simultaneously the only source of a free society and, by itself, leads inevitably to totalitarianism?

Heidegger's Turn against Humanism

Lecture 25

In Heidegger's *Being and Time*, his true goal was the meaning of being itself; he only chose the analysis of *Dasein*'s way of existence as a mode of access to the larger question of the meaning of being. But in his later work—and this essentially means very shortly after *Being and Time*—he came to see his original starting point with *Dasein* as a humanist or anthropocentric mistake; this is to say, he came to reject what was most existentialist in his early work.

Martin Heidegger made clear that the existential analysis of *Dasein* in his monumental *Being and Time* was merely a mode of access to the more important question: What is the meaning of being? After *Being and Time*, his thought underwent a self-confessed turn in which, instead of conceiving *Dasein* as the clearing where phenomena are revealed, being reveals itself through *Dasein*: The active party is being.

It is being that has alternately concealed and revealed itself through different epochs of human history.

During and after the war, Heidegger concluded that since Plato, through René Descartes and Immanuel Kant, Western philosophy has projected its concepts onto being, conceiving itself as the active power. Modern technology, which treats being as mere resources to be appropriated, is just the most complete expression of this ancient philosophic attitude. But this was always an illusion: It is being that has alternately concealed and revealed itself through different epochs of human history. Heidegger considered the United States and the Soviet Union the epitome of this domination of being, whose only hope lay in the Greco-German cultural heritage. ■

Heidegger's "Question Concerning Technology"

In "The Question Concerning Technology," Martin Heidegger produced a theory in which technology enframes beings as "standing reserve." What he means by this is that technology treats being as stuff. At the same time, technology enframes beings that way, meaning the use of modern technological devices, along with the scientific theories that understand them, imposes a framework through which we understand the world. He is saying that in our age, there is this new threat to our understanding of being: Science and technology are themselves the completion of the task of metaphysics that began with Plato, which treated being through presence or the present, one mode of time, and projects onto this presence the idea, the concept, a creation of the philosophical imagination. In other words, being is then shrunk to what is present, and the present is made dependent on the mind's ideas.

How can we overcome this, our ignoring being as it reveals itself to us? This can only be overcome by returning to the notion of *aletheia*, of truth as unconcealment rather than as accurate representation or propositional truth. Only then can we safeguard the mysterious non-entitative disclosure of being. Being discloses itself; there is mystery in that. Our job is to think that without destroying it; and the philosophical tradition destroys it, or rather destroys the possibility of thinking about it in any deep way. But overcoming technology does not mean rejecting or destroying it; it means returning to the concealed truth that technology has covered over. That technology was itself a creative act; attending to the creative act of the invention of technology can be a way to understand what lies beneath the technology. Always the aim for Heidegger in his later period was to look back historically to the fork in the road; at some point in the fork in the road, human beings create something novel. That creation can teach us something, because being has disclosed something to us whenever we create something new. But quickly we get so concerned with the created thing, with the new technology, that we forget the being that lies under it. The technology fascinates us and lets our attention pass over without noticing its origin. What we need is not the absence of technology but sensitiveness to the truth, what he thinks of as the originary *aletheia*; what is originally being disclosed by the creation and use of the technology.

Suggested Reading

Heidegger, "On the Essence of Truth," "The Question Concerning Technology," and "Letter on Humanism," in *Martin Heidegger*.

Questions to Consider

1. Which is ontologically prior, truth or being?

2. How can a recognition of the origin of technology liberate us from treating being as enframed?

Culture, Hermeneutics, and Structuralism

Lecture 26

For Gadamer, our thought always moves among artifacts and documents bequeathed us by the past. Our language itself is an historical accumulation, each term carrying its past uses.

Martin Heidegger had intimated in his later work that language was the house of being. Now his rival **Ernst Cassirer** reinterpreted Immanuel Kant to make cultural media, like language, the means by which humans organize their experiential world. Simultaneously, novel movements from linguistics, anthropology, and biblical studies were provoking philosophers concerned with the human sciences to see the self as the product of linguistic and cultural meaning, rather than the other way around. Like Heidegger's later work, this was a movement away from humanism.

Ernst Cassirer reinterpreted Immanuel Kant to make cultural media, like language, the means by which humans organize their experiential world.

While Cassirer's work was largely neglected after the Second World War, there are two other schools of thought that also located meanings in culture rather than the self, and these would eventually flourish and have a major impact on later philosophical thought. The great German philosophies of the subject—phenomenology, existentialism, early Marxism, and psychoanalysis—found meaning in the human mind. Now, **hermeneutics** and **structuralism** found meaning in cultural structures. Hermeneutics was a 19th-century science of biblical interpretation; **Hans-Georg Gadamer** now reread the theory of hermeneutics in terms of Heidegger. But the most influential version of the continental turn to language was **structuralism**. First formulated in linguistics by Ferdinand Saussure but famously applied to anthropology by Claude Lévi-Strauss, structuralism holds that the meanings of signifiers are fixed by the differences between signifiers in a system of signs, with each sign defined by its relation to other signs. ■

Names to Know

Cassirer, Ernst (1874–1945): A neo-Kantian German polymath whose philosophy ranged from mathematics and physics to the philosophy of culture and the history of all. His most prominent role was as the premier theorist of culture in the 20th century and author of the three-volume *The Philosophy of Symbolic Forms*.

Gadamer, Hans-Georg (1900–2002): Influenced by Martin Heidegger, Gadamer rehabilitated the 19th-century tradition of biblical interpretation, hermeneutics, as a method of humanistic understanding. His most famous work was *Truth and Method*.

Important Terms

hermeneutics: The science of interpretation invented by biblical scholars in the 19th century, hermeneutics in the 20th century became a philosophy by thinkers like Hans-Georg Gadamer that embedded meanings in historical and cultural traditions.

structuralism: A theoretical approach to the human or social sciences in which the meanings of human actions are derived from networks of signs and/or concepts, for example, in the work of Ferdinand de Saussure and Claude Lévi-Strauss.

Suggested Reading

Cassirer, *The Philosophy of Symbolic Forms.*

de Saussure, *Course in General Linguistics.*

Gadamer, *Truth and Method.*

Lévi-Strauss, *The Raw and the Cooked.*

Questions to Consider

1. Are meanings produced and fixed by historical genesis or by the contemporaneous relations among signs?

2. What place does a structural approach to the human science leave for individual liberty?

Wittgenstein's Turn to Ordinary Language

Lecture 27

Philosophy is a battle against the bewitchment of our intelligence by means of language.

——Ludwig Wittgenstein

Ludwig Wittgenstein's *Philosophical Investigations* was perhaps the most influential work of 20th-century philosophy. In it, Wittgenstein rejects his own earlier positivism to declare that linguistic meaning is use, dictated not by logic but by the contextual social activities in which sentences operate. Philosophical problems are caused by ripping terms out of their practical context. After Wittgenstein, Englishman J. L. Austin continued to find linguistic error at the base of many supposedly intractable problems.

Philosophical problems are caused by ripping terms out of their practical context.

In a book that resembled a series of short dialogues and puzzles, Wittgenstein criticized the view that meaning lies in the labeling of private mental contents by words defined through public or private ostension. On the contrary, the meanings of words are acquired through the use of sentences in a practical context, as part of human activity. In short, meaning is use. Wittgenstein went on to show that a series of traditional assumptions about language are faulty. Most famously, he rejected the fear that if meanings of words are private correspondences to ideas, they could systematically differ between people. He applied this to, among other topics, the theory of knowledge, showing that skepticism and philosophical arguments against skepticism are equally nonsensical. ■

Name to Know

Wittgenstein, Ludwig (1889–1951): This Austrian was perhaps the most influential philosopher of the 20th century. His early work in logic led to the *Tractatus Logico-Philosophicus*, which influenced the Vienna Circle. After leaving philosophy for many years, he returned to Cambridge to formulate a new philosophy of meaning as used in his *Philosophical Investigations*.

Suggested Reading

Monk, *Wittgenstein.*

Rorty, *The Linguistic Turn.*

Wittgenstein, *On Certainty.*

———, *Philosophical Investigations*.

Questions to Consider

1. What do "language game" and "form of life" mean?

2. Why can there be no such thing as a private language that systematically, and undetectably, differs from the public language of the speaker?

Quine and the End of Positivism

Lecture 28

Quine was a person who had absolutely no feeling whatsoever for existential or religious questions; for him, philosophy had no business going where rational methods could not decide the issue.

Willard Van Orman Quine studied with the positivists but undermined their view. Most famously, he denied Kant's analytic/synthetic distinction, meaning that we cannot separate, except in trivial cases, statements made true by their meanings and those made true by experience: Our theories confront the world as whole systems. Quine agreed with Ludwig Wittgenstein that meaning is public and behavioral. Consequently, translation of terms is holistic. Therefore the meanings of particular pieces of our theories, like terms, are indeterminate; the meanings of the individual terms cannot be reduced to one. This also means that experience cannot determine which metaphysics is the right one; Quine endorses ontological relativity. Like Rudolf Carnap, he accepts that our choice of metaphysics is pragmatic. ■

Name to Know

Quine, Willard Van Orman (1908–2000): Perhaps the most prominent American philosopher of the 20th century, he began as a student of the positivists but went on to undermine many of their doctrines and endorse ontological relativity.

Important Terms

physicalism: The view that reality is physical; this is sometimes used identically with materialism, but properly the physical is a broader category (e.g., vacuums and electromagnetic fields are physical but not material).

reduction, **reductionism**: In philosophy of science, reduction refers either to explanation of a system's properties as the product of the properties of its components or lower-level entities (explanatory or theoretical reduction) or to the claim that the system is the collection of its parts or lower-level entities (ontological reduction). If reductive explanations are held to be transitive, then this would mean all phenomena are explainable by physics. Some thinkers deny this but maintain ontological reductionism.

Suggested Reading

Floyd and Shieh, *Future Pasts.*

Quine, *Ontological Relativity and Other Essays*.

———, "Two Dogmas of Empiricism."

———, *Word and Object*, chap. 2.

Questions to Consider

1. What is wrong with the analytic/synthetic distinction as traditionally conceived?

2. How is it that we can recognize gavagai yet have different, indeterministic ontologies of it?

New Philosophies of Science

Lecture 29

Most philosophers of science today reject the seeming irrationalism of Kuhn's account. … Nevertheless, transition between paradigms remains a crucial issue in accounts of scientific rationality. If Kuhn's notion of incommensurability is, let us say, not fully accepted by scientists in general, everyone has to deal with it in the philosophy of science; in other words, Kuhn has really raised the ante and suggested something that no one suggested before, namely that the very paradigm of rationality, what we call science, might itself have a nonrational core.

The decline of positivist **verificationism**, and the belief that observations statements could be strictly distinguished from theoretical statements, led to new interpretations of scientific knowledge. **Karl Popper**, trying to solve David Hume's problem of induction, concluded that science never confirms its claims at all; it merely disconfirms false alternatives. Philosophers of biology came to object that positivist philosophy of science had ignored sciences other than physics. **Donald Davidson** proposed a notion of supervenience, which seemed more plausible than strict physicalist reductionism. Later, **Thomas S. Kuhn** presented a novel account of the history of science, holding that rather than advancing by patient accretion of discoveries, science advances by revolutions in which a new paradigm replaces its predecessor. This raised the question of how rational the choice between paradigms could be. ■

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Many philosophers of science considered the discovery of the double-helical structure of DNA an ideal case of reduction.

Names to Know

Davidson, Donald (1917–2003): An American analytic philosopher who made major contributions to a broad range of issues, including the theory of action, radical translation, metaphor, and the notion of supervenience.

Kuhn, Thomas S. (1922–1996): This American historian of science revolutionized his field by arguing in *The Structure of Scientific Revolutions* that science proceeds discontinuously, through periodic revolutions where one paradigm of fundamental concepts is thrown over for another, raising questions about the rationality of theory choice at those moments.

Popper, Karl (1902–1994): An Austrian and then British philosopher of science whose contributions spanned from the logic of induction—where he created falsificationism to answer David Hume—to epistemology to the philosophy of biology to political philosophy (in his book *The Open Society and Its Enemies*). He was one of the most important philosophers of the 20th century.

Important Term

verificationism: The view, held by some logical positivists (e.g., A. J. Ayer), that the meaning of a claim is the observations that would verify or confirm it.

Suggested Reading

Kuhn, *The Structure of Scientific Revolutions.*

Popper, *Conjectures and Refutations.*

Questions to Consider

1. How can induction be justified?

2. How can a rational argument be made from one paradigm to another?

Derrida's Deconstruction of Philosophy

Lecture 30

Derrida's key claim is that a sign and its meaning are members of both a diachronic or temporal series of that sign's occurrences, and the synchronic or simultaneous pattern of related signs in the language; the reference to both of these are essential to the sign's meaning.

Postmodernism was the most radical critique of modern, or any other, philosophy. One of the most famously difficult of writers, **Jacques Derrida** was the most prominent inspiration of postmodernism in philosophy. More precisely a **poststructuralist**, Derrida probed the implications of a structuralist view of the human sciences and philosophy, albeit one that denied structuralism's scientific aspirations. All use of linguistic signs produces multiple meanings. Writing, distinct from speech, is particularly troublesome in severing meaning from the presence of the author and hence is particularly infiltrated by "differance," or the unending production of differences in meaning. Philosophic writing tries to deny or repress this multiplicity in order to achieve fixed, unitary meaning, but it can never succeed. Derrida deconstructs works of philosophy, showing how their very attempts to fix meaning are self-undermining. ■

Derrida deconstructs works of philosophy, showing how their very attempts to fix meaning are self-undermining.

Name to Know

Derrida, Jacques (1930–2004): A French poststructuralist and the inventor of deconstruction, a radical philosophy of reading philosophical texts as having multiple, indeterminable meanings. He was one of the main instigators of postmodernism in philosophy.

Important Terms

postmodernism: A family of philosophical, artistic, and social movements that either hold that contemporary advanced societies have abandoned key features of modernity or hold that all presentation of reality (e.g., perception) presumes representation by signs. Most famously defined by Jean-François Lyotard in his *The Postmodern Condition: A Report on Knowledge*.

poststructuralism: The French postmodernist philosophers of the 1960s, like Jacques Derrida and Michel Foucault, are more precisely termed poststructuralists, who apply structuralism reflexively to the theories of the human sciences and philosophy, leading to radical results.

Suggested Reading

Derrida, "Differance."

———, *Of Grammatology*.

———, "Structure, Sign and Play."

Descombes, *Modern French Philosophy.*

Questions to Consider

1. Why has philosophy traditionally tried to reduce writing to speech?

2. What job is left for philosophy to do?

The Challenge of Postmodernism

Lecture 31

Some postmodernists become what we could call postcritical. This is a different group of postmodernists. By postcritical I mean ... that this group of postmodernists came to apply their radical critique of political and social norms so fully that they undermined the use of those norms to criticize the status quo.

Jacques Derrida and other French poststructuralists fueled a new movement in philosophy: postmodernism. Postmodernists deny presence or immediate relation of our ideas, perceptions, or representations to objectivity. All presentation presupposes representation or the use of signs, which are constructed by us. Some postmodernists make the historical claim that contemporary society or knowledge function without the need for authenticity or unity that earlier, modern society and thought required. Thus **Jean-François Lyotard** argued that contemporary science no longer seeks, nor requires, a unified picture of the world, while Jean Baudrillard claimed that we literally no longer interact with reality, but with a hyperreality of simulations.

Postmodernists deny presence or immediate relation of our ideas, perceptions, or representations to objectivity.

Others, inspired by **Michel Foucault**, argued that social normalcy is constructed by repressing social deviants and the identity of majority cultures by the suppression of minorities. Feminists like **Iris Marion Young**, Susan Bordo, and **Sandra Harding**, postcolonial writers like **Gayatri Chakravorty Spivak**, and Americanist philosopher of race **Cornel West** find in the postmodernists a means of social critique. But the question remains, is the postmodern critique so radical that not only the status quo, but any normative ideal used to lead reform, must fall before it? ■

Names to Know

Foucault, Michel (1926–1984): Along with Jacques Derrida, he is one of the two most influential poststructuralists and creators of philosophical postmodernism. Unlike Derrida, his work was essentially historical; he sought to portray how the language of the human sciences since the 16th century had constituted modern human being. He was heavily influenced by Friedrich Nietzsche's notions of genealogy and power.

Harding, Sandra (b. 1935): An American philosopher best known for her contributions to feminist epistemology, she argues that modern theory of knowledge and science privileged a masculinist conception of knowledge as objective and based in distance rather than interaction.

Lyotard, Jean-François (1924–1998): This French poststructuralist's work was closest to political and legal theory, and his *The Postmodern Condition: A Report on Knowledge* became the most famous definition of philosophical and social postmodernism in the 1980s.

Spivak, Gayatri Chakravorty (b. 1942): This postcolonial philosopher was born in India and educated there and in the United States. She incorporates feminist, Marxist, and Derridean perspectives to demonstrate how the literature of the colonial European powers constructs and subjugates the subaltern: women, the poor, and the non-Western.

West, Cornel (b. 1953): This prominent African American philosopher and minister has worked in many areas of philosophy and as a public philosopher in the Jamesian and Deweyan tradition. As author of *The American Evasion of Philosophy*, he argues for a "prophetic pragmatism" on the basis of the Americanist tradition.

Young, Iris Marion (1949–2006): This American feminist political philosopher was influenced by poststructuralist thought and was the author of many books, including *Justice and the Politics of Difference* and *"Throwing Like a Girl" and Other Essays in Feminist Philosophy and Social Theory*.

Suggested Reading

Baudrillard, *America*.

Cahoone, "From Feminist Empiricism," "The Scaling of Bodies," "A Genealogy of Modern Racism," "Can the Subaltern Speak?" and "The Cartesian Masculinization of Thought" in *From Modernism to Postmodernism.*

Foucault, "Truth and Power," in *The Foucault Reader*.

Lyotard, *The Postmodern Condition.*

Questions to Consider

1. Has reason (or rationality), as a norm and ideal, itself been a tool of social repression?

2. What notion of freedom, equality, or liberation that might be opposed to the established status quo would not be open to deconstruction?

Rorty and the End of Philosophy

Lecture 32

Rorty remains deeply controversial; loved by some, disliked by most perhaps. At the very least, we can say that Rorty really did announce more clearly than any other philosopher of the mid- to late 20th century the end of foundationalism. ... The deeper question we're left with is, is philosophy wedded to that foundationalist project? If it is ... then philosophy as we understood it is at an end.

In the later Martin Heidegger, in hermeneutics and structuralism, in Willard Van Orman Quine and Thomas S. Kuhn, we begin to see the end of a conception of first philosophy that had been active since at least René Descartes: foundationalism. The attempt to justify epistemic realism, or our objective knowledge of the world, by identifying indubitable first principles or incorrigible sense data has ended. Now there are no nontrivial first principles that are indubitable or that can be noncircularly justified, and all statements of sense data are themselves infiltrated by theories and perspectives unjustified by that very data.

All statements of sense data are themselves infiltrated by theories and perspectives unjustified by that very data.

There is no, as Thomas Nagel put it, "view from nowhere," or as **Hilary Putnam** put it, "God's Eye view" of the world. Likewise, as **Joseph Margolis** points out, the Kantian notion that a universal and necessary inventory of human projections onto the world, or a pure, presuppositionless account of experience, is just as impossible. We no more have a foundational theory of our own knowing apparatus than we do of what it knows. The point is that foundationalism is dead. The person who wrote the obituary was **Richard Rorty**. The most famous American contributor to postmodernist philosophy, Rorty argued that the search for the foundations of knowledge is a bankrupt enterprise, that traditional philosophy is well forgotten; knowledge is simply whatever the verification procedures of society say it is. ■

Names to Know

Margolis, Joseph (b. 1924): An American philosopher with the rare ability to work deeply in all three 20th-century traditions: analysis, continental philosophy, and pragmatism. He is the author of many books seeking a pragmatist view of knowledge that accepts relativism but does not undermine a realist interpretation of science.

Putnam, Hilary (b. 1926): A major American analytic philosopher of language and of mind, he was an early proponent of functionalism in the philosophy of mind. His later thought was heavily influenced by pragmatism and the work of J. L. Austin.

Rorty, Richard (1931–2007): An analytic philosopher who came to critique the whole genre of analytic and continental philosophy. He was the most famous critic of foundationalism and regarded himself as a radical pragmatist.

Suggested Reading

Rorty, *Consequences of Pragmatism.*

———, *Objectivity, Relativism, and Truth*.

———, *Philosophy and the Mirror of Nature.*

Questions to Consider

1. For Rorty, is pragmatism realist, antirealist, or neither?

2. For Rorty, what is the difference between the truth of everyday claims and the truth of philosophical claims?

Rediscovering the Premodern

Lecture 33

For Hannah Arendt, the meaning of human existence cannot lie in nature, or biological needs, or ecology, but in two things: the free action of human agents in politics (their deeds and speeches in front of others) and the construction of durable cultural objects that provide us with a meaningful artifactual environment. From her point of view, nature by itself is meaningless; only human creation or creative activity gives life meaning.

If modern philosophy has reached a dead end, then perhaps it was its departure from premodern thought that created the problem in the first place. A series of 20th-century philosophers, some inspired by Martin Heidegger, have called for reincorporation of premodern notions to supplement modernity. The most notable of these thinkers in political theory are **Leo Strauss** and **Hannah Arendt**.

Alasdair MacIntyre produced the most comprehensive account of a premodern epistemology for a modern age.

In ethics, **Alasdair MacIntyre** produced the most comprehensive account of a premodern epistemology for a modern age. The kind of intelligibility a human life can aspire to is narrative, the intelligibility of a story. Individual stories gain their sense from traditions. MacIntyre claims that rationality only operates in a tradition. He forges a sophisticated notion of living traditions and their prerequisites. But mustn't this lead to relativism? MacIntyre argues that it does not. ■

Names to Know

Arendt, Hannah (1906–1975): A student of Martin Heidegger, she was one of the great political philosophers of the 20th century. Politically a representative of civic republicanism.

MacIntyre, Alasdair (b. 1929): This American philosopher was one of the most prominent ethicists of the second half of the 20th century. Early in his career, he participated in the rationality debate with Peter Winch and Ernest Gellner. Late in his career, he formulated a neo-Aristotelian notion of ethics and rationality itself in the books *After Virtue* and *Whose Justice? Which Rationality?*

Strauss, Leo (1899–1973): A controversial historian of political philosophy who had a significant impact on political theory and even American politics in the second half of the 20th century.

Suggested Reading

Arendt, *The Human Condition*.
MacIntyre, *Whose Justice? Which Rationality?*
Strauss, *Natural Right and History.*

Questions to Consider

1. Can the concept of rationality-in-a-tradition avoid relativism?

2. Has modernity made rationality empty, leaving us only with political power to decide our questions?

Pragmatic Realism—Reforming the Modern

Lecture 34

For Campbell, all cognition is to be understood pragmatically, and in several senses. The most basic method of cognition in any species is the selective retention of action patterns that work, that are successful; in other words, knowledge comes by trial and error.

The attempt to preserve the philosophical search for realist truth in the absence of foundationalism led to the resurgence of pragmatism, the view that knowledge arises in the context of action. **Jürgen Habermas**, a major German philosopher, argues that Reason is a kind of social practice of communication, not the possession of a private mental capacity, and as such, democratic institutions and science can be justified as the necessary conditions for such communication. Hilary Putnam, a prominent American analytic philosopher, argues that while there is no "God's Eye view" available to us, none is required to account for objectivity in a pragmatic realism. Joseph Margolis presses the symbiotic relation of thought and thing in a relativist direction, but he nevertheless accepts that pragmatism justifies a realist view of the whole of our knowledge. In a related development, Konrad Lorenz and **Donald T. Campbell** argued for an **evolutionary epistemology**, that our cognitive capacities do actively project a perspective on the world, but one pragmatically shaped by survival in the environment. It is striking that many of the battles of contemporary theory of knowledge are being fought on pragmatist turf. ■

Name to Know

Habermas, Jürgen (b. 1929): The last representative of the Frankfurt School, a former assistant to Theodor Adorno, and the most prominent German social philosopher of the late 20th century. He combined American pragmatism with German thought into a theory of modern democracy. Author of *The Theory of Communicative Action*.

Important Term

evolutionary epistemology: A theory that tries to account for the nature of human cognition through natural selection, as a result of our biological evolution. The most famous expositors were Donald T. Campbell and Konrad Lorenz.

Suggested Reading

Campbell, "Evolutionary Epistemology."

Habermas, *The Theory of Communicative Action.*

Lorenz, "Kant's Doctrine of the A Priori."

Margolis, *Pragmatism without Foundations.*

Putnam, *Reason, Truth, and History.*

Questions to Consider

1. How can pragmatism, placing cognition in the context of action, avoid relativism?

2. Can naturalistic epistemology be combined with the fact of historical and cultural constitution of our cognition?

The Reemergence of Emergence

Lecture 35

One of the enduring themes of modern thought has certainly been the need to understand reality systematically in light of the achievements of modern science, yet still leaving room for the human mind, meaning, and hope.

The decline of positivism took some of the wind from the sails of the physical reductionists, who wanted to claim that ultimately, if we knew enough, physics would explain everything. But more important in the late 20th century were the rise of the philosophy of biology as a field and a new set of scientific concerns about complexity. It became evident that in chemistry, solid-state physics, and biology, there is more to be learned, more unexpected phenomena—chaos, nonlinear systems, self-organizing and hierarchical systems, critical-point phenomena—than reducing systems to their smallest components could account for. This helped to inspire some philosophers to think differently about reduction and **emergence**, perhaps the most important being **William C. Wimsatt**. In all this, the old metaphysical doctrine of emergence seems to be making a comeback, or a reemergence. And with that, the options for a complex, nonreductionist naturalism seem better than ever. ■

In chemistry, solid-state physics, and biology, there is more to be learned ... than reducing systems to their smallest components could account for.

Name to Know

Wimsatt, William C. (b. 1941): A philosopher of biology at the University of Chicago, he has done the most sophisticated recent work on emergence and reductive explanation in the context of actual scientific practice.

Important Term

emergence: The claim that some natural systems exhibit properties that are not exhibited by the components of the system. Hence the novel, or emergent, property is irreducible to properties of the components.

Suggested Reading

Clayton and Davies, *The Re-Emergence of Emergence*.

Wimsatt, *Re-Engineering Philosophy for Limited Beings*.

Questions to Consider

1. How should emergence and reduction be defined?

2. Can the notion of levels of reality be objectively applied?

Philosophy's Death Greatly Exaggerated

Lecture 36

Philosophy is just the name we give to our trying to figure out what the world and life are like in the widest possible sense, by using the method of inquiry; that is, the method of saying what we think is true and giving reasons and evidence for and against.

Philosophy moves forward in a spiral, rendering some theories unsupportable, pressing forward with others, and recycling parts of older theories in new projects. Today we cannot but accept many of the criticisms of traditional philosophy raised in the radical 20th century. Foundationalism is dead, and with it any notions of incorrigible, immediate, uninterpreted access to reality.

Foundationalism is dead, and with it any notions of incorrigible, immediate, uninterpreted access to reality.

But that does not have to mean philosophy is dead. Even if knowledge is fallible, funded, thickly laden, mediated, constructed, and symbiotic, it can still be approximately true. We have an adverbially thick cognitive apparatus, partly biological and naturally selected, partly historical and cultural, and certainly social, which grasps approximate truths about its objects. These are not all of, or the only such, truths. Metaphysically, if emergence is accepted against a narrow reductionism, then the unique functions of humanity—cognitive, ethical, aesthetic, even spiritual—can be entirely compatible with a naturalistic account of reality. Such, at any rate, is one philosopher's opinion, but there are many more, and the supply shows no sign of diminishing. ■

Philosophy Alive and Kicking

Today, in the early 21st century, philosophy is still in business. In fact, the philosopher's job may be more central than ever. Although over the centuries philosophy has been diminished as more and more fields—first the physical sciences, then the social sciences—have gradually split off from philosophy to pursue their own methods, the problem of integrating the knowledge of those fields and of the fields of everyday life is greater than ever. The attempt to know the world and ourselves, to know what is true, good, and beautiful, remains a philosophical job.

The alternative to philosophy would be essentially to stop wondering, to stop asking questions that go beyond the methods and intellectual boundaries of the many contexts of our lives. The choice is either, as Aristotle knew long ago, to accept our unreflected, uncoordinated, often contrary beliefs, or to ask ourselves if they are true and how they hang together. If you ask those questions and try to answer them, you are doing philosophy. It may be that we are just not built for cognitive rest: Human beings are condemned to ask questions beyond and about what they do and what they experience. So the journey of modern thought is not over; perhaps it is just beginning.

Suggested Reading

Cahoone, *Cultural Revolutions*, chap. 7, conclusion.

———, *The Ends of Philosophy.*

Questions to Consider

1. Do the many critiques of philosophical knowing in the 20th century—from Quine to Kuhn to Derrida to Rorty—mean that philosophy can no longer seek the kind of comprehensive knowledge that has always defined it as distinctive?

2. What kind of philosophy, then, will the future bring?

Timeline

1492..... Christopher Columbus's arrival in the Americas.

1543..... Nicolaus Copernicus's *On the Revolutions of Celestial Spheres*.

1581..... Establishment of Dutch Republic (where René Descartes and Baruch Spinoza later wrote).

1632..... Galileo's *Dialogue Concerning the Two Chief World Systems.*

1641..... René Descartes' *Meditations on First Philosophy*.

1677..... Baruch Spinoza's *Ethics.*

1686..... Gottfried Wilhelm Leibniz's *Discourse on Metaphysics*.

1687..... Isaac Newton's *Mathematical Principles of Natural Philosophy*.

1689..... England's Glorious Revolution.

1690..... John Locke's *An Essay Concerning Human Understanding*.

1710..... George Berkeley's *Treatise Concerning the Principles of Human Knowledge*.

1739–1740..... David Hume's *A Treatise of Human Nature*.

1776..... American Revolution; David Hume's death; Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations*.

1781..... Immanuel Kant's *Critique of Pure Reason*.

1789..... French Revolution.

1793–1794..... The Terror in France.

1794..... Johann Gottlieb Fichte's *The Science of Knowledge*.

1800..... Friedrich Wilhelm Joseph von Schelling's *System of Transcendental Idealism*.

1807..... Georg Wilhelm Friedrich Hegel's *Phenomenology of Spirit* (finished in Jena as Napoleon conquered the city).

1821..... Napoleon's death.

1831..... Georg Wilhelm Friedrich Hegel's death.

1843..... Søren Kierkegaard's *Fear and Trembling* and *Either/Or*; John Stuart Mill's *A System of Logic*.

1844..... Karl Marx's *Economic and Philosophic Manuscripts of 1844*.

1859..... Charles Darwin's *On the Origin of Species by Means of Natural Selection.*

1871..... Otto von Bismarck's unification of Germany.

1877–1878..... Charles Sanders Peirce's pragmatism essays.

1879..... Gottlob Frege's *Begriffsschrift* (*Concept Script*).

1900..... Sigmund Freud's *The Interpretation of Dreams.*

1900–1901..... Edmund Husserl's *Logical Investigations.*

1905..... Albert Einstein's theory of special relativity.

1906..... William James's *Pragmatism*.

1910–1913..... Bertrand Russell and Alfred North Whitehead's 3-volume *Principia Mathematica*.

1914–1918..... World War I.

1915..... Albert Einstein's theory of general relativity.

1916..... Ferdinand de Saussure's *Course in General Linguistics*.

1921..... Ludwig Wittgenstein's *Tractatus-Logico Philosophicus.*

1925..... John Dewey's *Experience and Nature*.

1926–1927..... Erwin Schrödinger's wave equation; Heisenberg's uncertainty principle.

1927..... Martin Heidegger's *Being and Time*.

1929..... Alfred North Whitehead's *Process and Reality: An Essay in Cosmology*.

1931..... Kurt Gödel's "On Formally Undecidable Propositions of *Principia Mathematica* and Related Systems."

1933–1945..... Adolf Hitler's chancellorship.

1934..... Rudolf Carnap's *The Logical Syntax of Language*.

1939..... Adolf Hitler invades Poland.

1940..... Fall of Paris.

1941..... Japanese attack on Pearl Harbor.

1943..... Jean-Paul Sartre's *Being and Nothingness*.

1945..... Defeat of Germany and Japan; occupation of central Europe by U.S. and USSR.

1947..... Theodor Adorno and Max Horkheimer's *Dialectic of Enlightenment*; Martin Heidegger's *Letter on Humanism*.

1953..... Ludwig Wittgenstein's *Philosophical Investigations*.

1960..... Hans-Georg Gadamer's *Truth and Method*; Willard Van Orman Quine's *Word and Object*.

1962..... Thomas S. Kuhn's *The Structure of Scientific Revolutions*.

1966..... Michel Foucault's *The Order of Things*.

1967..... Jacques Derrida's *Of Grammatology*, *Speech and Phenomena*, and *Writing and Difference*.

1968..... Tet Offensive in Vietnam; assassinations of President Robert F. Kennedy and Martin Luther King Jr.; student revolts in U.S. and Paris; Prague Spring; Cultural Revolution in China.

1974..... Donald T. Campbell's "Evolutionary Epistemology."

1979..... Jean-François Lyotard's *The Postmodern Condition*; Richard Rorty's *Philosophy and the Mirror of Nature*.

1981..... Alasdair MacIntyre's *After Virtue*; Jürgen Habermas's *The Theory of Communicative Action*; Hilary Putnam's *Reason, Truth, and History*.

1989..... Fall of Berlin Wall.

1991..... Dismantling of USSR.

Glossary

a posteriori: This Latin term literally means following experience, but precisely, knowledge whose justification is dependent on experience.

a priori: This Latin term literally means before experience, but precisely, knowledge whose justification is independent of experience.

aesthetics: The subfield of philosophy that investigates the nature of art and the experience of beauty.

Age of Reason: The 17th-century period of scientific revolution and systematic philosophy that preceded the Enlightenment.

American philosophy: Also known as Americanist philosophy or classical American philosophy, this indigenous American philosophical tradition was practiced from the mid-19th century until the 1930s, when analytic and continental philosophy became dominant in the United States. Its most famous doctrine is pragmatism, and its most famous exponents are Charles Sanders Peirce, George Herbert Mead, William James, John Dewey, George Santayana, and Josiah Royce.

analytic philosophy: Sometimes called Anglo-American philosophy, the predominantly English-language philosophy of the past century stemming from figures such as Gottlob Frege, Bertrand Russell, George Edward Moore, Rudolf Carnap, Ludwig Wittgenstein, and Willard Van Orman Quine that puts a premium on linguistic clarity and the relation between philosophical claims and either logic or science.

analytic proposition: A proposition whose subject logically contains its predicate and hence is true or false by meaning. An example is "All bachelors are unmarried," because "bachelor" means unmarried man. *See also* **synthetic proposition**.

ancient philosophy: Philosophy from the 7th century B.C.E. to the end of the Roman Empire (4th century C.E.).

British emergentism: A school of thought in the 1920s that proposed an alternative to mechanism and vitalism by which complex organization of components of one level (e.g., physical) yield novel, irreducible properties at a higher level (e.g., chemical). Its most prominent exponents were Samuel Alexander, Conwy Lloyd Morgan, and C. D. Broad.

cause: Aristotle held that each thing has four different kinds of causes (conditions without which it would not be): the material cause, or what it is made of (e.g., for an ancient ship, wood); the efficient cause that makes it (the act of building the ship); its formal cause, or structure or form (the blueprint or plan for the ship); and the final cause or purpose of the ship (to sail the ocean). Modern science crucially denied that there are final or formal causes in natural things. David Hume famously criticized causality as "necessary connection."

constructivism: Broadly, an explanation of something through the procedure that produces it; but often in epistemology, the claim that what is known to be real is constructed by the knowing subject(s).

continental philosophy: Philosophies from mainland Europe in the past two centuries, stemming from figures such as Georg Wilhelm Friedrich Hegel, Edmund Husserl, Martin Heidegger, Hans-Georg Gadamer, Jean-Paul Sartre, Theodor Adorno, Maurice Merleau-Ponty, Jacques Derrida, and others, typically nonnaturalistic and hermeneutic in orientation.

critical idealism: Immanuel Kant's name for his version of idealism, which accepts that nonmental things in themselves cause our experience, but our experience is structured a priori by our own cognitive activity. Also sometimes called transcendental idealism.

critical theory: An ambiguous term that in the 20th century was applied to the work of both the German neo-Marxist philosophers of the Frankfurt School and poststructuralist French philosophers.

deism: A religious philosophy modeled on a minimal Christianity, with beliefs in moral rule, the soul, an afterlife, and God, lacking any other theology or ritual practice. Jean-Jacques Rousseau and Immanuel Kant were deists.

deontological ethics: The ethics of duty, which holds that what makes action moral is that the intended act conforms to a rule of moral obligation, regardless of consequences or goals.

direct realism: The claim that in perception, we directly cognize the external object of perception and not merely a representation of it.

dualism: Any theory that claims some subject is composed of two fundamentally different kinds of things (e.g., in metaphysics, that all reality is either mind or matter).

emergence: The claim that some natural systems exhibit properties that are not exhibited by the components of the system. Hence the novel, or emergent, property is irreducible to properties of the components.

empiricism: The epistemological view that all knowledge derives from experience. Empiricism's opposite is **rationalism**.

Enlightenment: The 18th-century western European explosion of secular philosophy, political revolution, and science against "superstition" that bequeathed us the idea that reason, science, and freedom bring progress.

epistemology: The subfield of philosophy that examines the nature and possibility of knowledge and truth.

ethics: The subfield of philosophy that investigates the good life, moral values, and how humans ought to live. Three dominant schools of ethical thought are virtue ethics, deontological ethics, and utilitarianism.

evolutionary epistemology: A theory that tries to account for the nature of human cognition through natural selection, as a result of our biological evolution. The most famous expositors were Donald T. Campbell and Konrad Lorenz.

existentialism: The philosophical movement focused on the analysis of individual existence and the individual's thought and responsibility. Søren Kierkegaard and Friedrich Nietzsche were 19th-century sources of what become existentialism in the 20th century.

explanation: There are many types, categorizations, and theories of explanation in the philosophy of science. One useful recent typology, by William C. Wimsatt, distinguishes three types of explanation: reductive; phenomenological (not related to Husserlian or Hegelian phenomenology); and functional, which explains a system's properties by, respectively, the properties and behavior of its components, its interaction with systems of comparable scale, and its role within an encompassing system.

externalism: In the philosophy of language or mind, the view that meanings supervene or depend on relations of the subject to environment, rather than depending only on intramental processes. Externalism was promoted by Saul Kripke and Hilary Putnam, and its antonym is internalism.

fallibilism: In methodology and epistemology, the notion that all judgments are fallible, there being no significant necessary truths we can discover. It was first formulated by Charles Sanders Peirce.

falsificationism: Karl Popper's theory that inductive inference from observation does not confirm our hypotheses but only disconfirms them. So to accept a theory as true is merely to say it has not yet been falsified.

form: In metaphysics, from Plato and Aristotle, the rule or structure that makes a thing what it is (what it means to be the thing). It organizes a thing's matter and provides a thing's intelligibility.

foundationalism: The attempt to provide an incorrigible, presuppositionless ground for objective or realist knowledge claims. Often claims indubitable, foundational knowledge (e.g., in sense data, innate ideas, or the inner working of Reason itself). René Descartes is explicitly a foundationalist, as are many other modern thinkers.

functionalism: A term used variously inside philosophy and out. In a vague sense, it means understanding something as an operation or activity through what it does, rather than what it is. The most famous use in recent philosophy is to refer to the computational theory of mind, first developed by Hilary Putnam, as a device analogous to a computer. It can also be used for functional explanation generally, explaining a system's behavior by what it accomplishes for an encompassing system. *See also* **explanation**.

hermeneutics: The science of interpretation invented by biblical scholars in the 19th century, hermeneutics in the 20th century became a philosophy by thinkers like Hans-Georg Gadamer that embedded meanings in historical and cultural traditions.

historicism: Generally, the view that some property changes historically; but most famously, the view that norms, like truth or moral goodness, are relative to historical period. Karl Popper famously accused Georg Wilhelm Friedrich Hegel and Karl Marx of historicism.

holism: Generally, the view that the character of individual elements, or their appearances, is dependent on their location in a larger system. In this sense, gestalt psychology and Georg Wilhelm Friedrich Hegel's logic and metaphysics are holistic. In recent analytic philosophy, it more narrowly means Willard Van Orman Quine's view that theories confront experience as a whole, so that disconfirming observations leave it indeterminate as to what part of the theory to replace.

idealism: The metaphysical view that reality is in some important sense mental. Different kinds of idealism press the mentality of the world to differing degrees. Absolute idealism holds that reality is solely mental, that matter does not exist, as George Berkeley held. The more famous German idealists, like Georg Wilhelm Friedrich Hegel, held a more subtle version, taking nature as an expression of spirit. Idealism's opposite is **materialism** or **physicalism** or **naturalism**.

logic: The subfield of philosophy that investigates the rules that make an argument valid. Notice that logical validity is independent of truth: "If all men are cabbages," and "Cahoone is a man," then that "Cahoone is

a cabbage" is a valid inference; but because its first premise is false, the argument's conclusion is false. The late 19th century witnessed the creation of the first new logic since Aristotle, and this was crucial to the development of 20th-century philosophy. *See also* **modern logic**.

logicism: The attempt to show that mathematics can entirely be derived from basic logical terms and principles. Bertrand Russell and Alfred North Whitehead's *Principia Mathematica* is the most famous logicist work.

materialism: The metaphysical view that reality is solely composed of matter. Thomas Hobbes and Karl Marx are materialists. Materialism's opposite is **idealism**.

matter: For Aristotle, the physical stuff that individuates a real thing (a substance), particularizing its form.

medieval: The historical period from the fall of the Western Roman Empire (5th century C.E.) through the 15th century C.E.

metaphysics: The subfield of philosophy that investigates the ultimate nature of reality, the composition of all things, and the existence of God. Within metaphysics, the inquiry into being itself is called ontology.

modern: In philosophy, used for the historical period roughly since the start of the 17th century. The late 15th through the 16th centuries are sometimes included under modern but other times distinguished as Renaissance philosophy.

modern logic: Invented primarily by Gottlob Frege (but with independent contributions by Charles Sanders Peirce), a powerful tool for formalizing natural language statements and their proofs. First-order logic (also called first-order predicate calculus) uses variables that range over individuals and includes quantifiers (unlike propositional logic). Second-order logic uses variables and quantifiers that range over sets and properties.

monism: The metaphysical view that only one thing exists; all of reality is a single substance. Baruch Spinoza was a monist.

natural religion: Also known as natural theology or rational theology, the view that the basic tenets of Christianity (or any religion) can be derived through rational argument and/or naturalistic observation, without revelation. William Paley was a famous expositor.

naturalism: Strictly, the view that everything is natural or part of nature, so nothing is supernatural. As such, physicalism and materialism would be versions of naturalism, but the term has often been used more narrowly for views that do not equate the natural with the physical or material (e.g., those of American naturalists like John Dewey and emergentists like Conwy Lloyd Morgan).

naturalistic epistemology: The study of human cognition by natural science, as defined for example by Willard Van Orman Quine, often from the standpoint of evolution. Hence it is sometimes called **evolutionary epistemology**.

pantheism, **panentheism**: Pantheism is the claim that God and the universe are identical. Some philosophers distinguish this from the view that the universe is in God, but God is more than the universe, calling it panentheism. Baruch Spinoza, sometimes called a pantheist, was more strictly a panentheist.

phenomenalism: The epistemological view that we experience not things existing independently of the mind but data internal to our experience, so we cannot know that anything beyond phenomena exists.

phenomenology: This term was used by Georg Wilhelm Friedrich Hegel for his account of the dialectical progression of human experience, by Charles Sanders Peirce for the study of the most general features of experience, but most famously by Edmund Husserl for his philosophical method of studying experience that brackets or ignores all questions of natural existence.

physicalism: The view that reality is physical; this is sometimes used identically with materialism, but properly the physical is a broader category (e.g., vacuums and electromagnetic fields are physical but not material).

positivism: Also known as logical positivism or logical empiricism. The term "positivism" was invented by Auguste Comte in the 19th century to refer to the modern scientific temper of that century but more famously was adopted by the early 20th-century philosophers of the Vienna Circle, like Moritz Schlick, Otto Neurath, and Rudolf Carnap, for philosophical theory that regarded existential or factual questions as exhausted by science, and philosophy's job as logic and the clarification of scientific language.

postmodernism: A family of philosophical, artistic, and social movements that either hold that contemporary advanced societies have abandoned key features of modernity or hold that all presentation of reality (e.g., perception) presumes representation by signs. Most famously defined by Jean-François Lyotard in his *The Postmodern Condition: A Report on Knowledge*.

poststructuralism: The French postmodernist philosophers of the 1960s, like Jacques Derrida and Michel Foucault, are more precisely termed poststructuralists, who apply structuralism reflexively to the theories of the human sciences and philosophy, leading to radical results.

pragmatism: Originally a theory of meaning, it held that the meaning of a term or claim is its role in the guidance of conduct. It is also a theory of truth, although pragmatists differ on its precise formulation: The truth of a claim is its verification, or the satisfactoriness of actions that presume it, or its acceptance by the community of inquirers in the long run. In more global terms, pragmatists accept that meaning and mind arise in the context of social action. Formulated by Charles Sanders Peirce and William James.

process philosophy: Any philosophy that makes all reality and all forms or norms subject to a process of change. Most commonly applied to the work of Alfred North Whitehead but would also fit Henri Bergson and John Dewey, among others.

psychologism: The view of J. S. Mill and others that all meanings of signs, hence logic too, are psychological properties or entities of human organisms. That would mean they are in a sense naturalistic. Both Gottlob Frege and Edmund Husserl, and hence early analytic and continental philosophy, rejected this notion.

qualities: Those properties that belong to a thing independently of its being observed are primary qualities, while those belonging not to it, but only to our experience of it (i.e., those not existing in the object but caused to arise in our minds by its primary qualities) are secondary qualities. John Locke famously expressed this doctrine.

rationalism: The epistemological view, for example, of René Descartes and Immanuel Kant, that not all knowledge is derived from experience, that there is some nonexperiential source of knowledge. Its antonym is **empiricism**.

realism: The view that the something under consideration is real and independent of our activity. It can apply to epistemic or ethical questions. Epistemic realism means the validity of our cognitive judgment is determined by real properties of what is judged. The opposite is antirealism. (Note: Direct realism has a different meaning altogether, though one could be an epistemic realist and a direct realist at the same time.)

reduction, **reductionism**: In philosophy of science, reduction refers either to explanation of a system's properties as the product of the properties of its components or lower-level entities (explanatory or theoretical reduction) or to the claim that the system is the collection of its parts or lower-level entities (ontological reduction). If reductive explanations are held to be transitive, then this would mean all phenomena are explainable by physics. Some thinkers deny this but maintain ontological reductionism.

relativism: Narrowly, the claim that some property is a relative or relational property. ("Tall" is relational; "human" is not.) In practice, the view that the validity of our judgment is not determined by real properties of what is judged but by the relation of the judgment to the judge or some set of judgments, for example, a theory or culture. It can apply to epistemic or ethical issues.

representationalism: The view, widespread in modern thought, that in perception, that of which we are directly aware is a representation of the external object, not the object itself (e.g., a sense-datum).

Scholasticism: The synthesis of the philosophy of Aristotle and Christian theology that was forged in the 13th century, most famously by Saint Thomas Aquinas, and dominated the universities of central and western Europe from the 14th through the 18th century.

scientific revolution: The development of a new science in the 17th century characterized by a mathematical analysis of motion and matter; the rejection of Aristotle's substantial forms and final causes; and the replacement of the closed Aristotelian-Ptolemaic (geocentric) theory of the universe by the Copernican (heliocentric) system and an open or infinite, centerless universe. Arguably, there have been other scientific revolutions.

skepticism: The epistemological view that what others regard as knowledge is dubitable. There are many versions; only global skepticism doubts that we have any knowledge of real things at all. The ancient Greek Sextus Empiricus (a follower of Pyrrhonism) and the Scotsman David Hume were famous skeptics.

solipsism: The epistemological view that all I experience and know are properties of myself, that all objects of my experience and knowledge are in me.

structuralism: A theoretical approach to the human or social sciences in which the meanings of human actions are derived from networks of signs and/or concepts, for example, in the work of Ferdinand de Saussure and Claude Lévi-Strauss.

substance: The Latinized version of Aristotle's term for what exists in the primary sense, namely, independent physical beings (e.g., you or a chair or the Earth), while other beings are their properties (e.g., your activities, a chair's color, the Earth's roundness). Each substance has its own qualitatively distinct inner form and matter, and their properties, states, and modes as accidents.

synthetic proposition: A proposition whose predicate is not logically contained in the subject and as such can only be made true or false by added information, for example, "There are bachelors on Earth." *See also* **analytic proposition**.

transcendental: A term of art in Immanuel Kant and philosophies related to his, referring to the activity of the mind in shaping experience a priori.

utilitarianism: The ethics of utility, which holds that those acts are good whose consequences maximize social happiness, famously developed by Jeremy Bentham, James Mill, and his son John Stuart Mill.

verificationism: The view, held by some logical positivists (e.g., A. J. Ayer), that the meaning of a claim is the observations that would verify or confirm it.

virtue ethics: The ethics of virtue, which follows Aristotle in focusing on what makes good character, especially which dispositions to behave are morally good (virtues), rather than on rules that determine which action is good or right. This view has returned in recent philosophy, in the work of Alasdair MacIntyre and others.

Biographical Notes

Adorno, Theodor (1903–1969): One of the prominent thinkers of the neo-Marxist Frankfurt Institute for Social Research, which combined the thought of Karl Marx, Georg Wilhelm Friedrich Hegel, and Sigmund Freud. Adorno is the author of *Negative Dialectics* and, with Max Horkheimer, *Dialectic of Enlightenment*.

Alexander, Samuel (1859–1938): An influential English philosopher, one of the British emergentists, and the author of *Space, Time, and Deity*.

Aquinas, Saint Thomas (1224/5–1274): The great integrator of Christianity with Aristotelian philosophy, or Scholasticism, whose writings at first were condemned by the Catholic Church but later became official church doctrine.

Arendt, Hannah (1906–1975): A student of Martin Heidegger, she was one of the great political philosophers of the 20th century. Politically a representative of civic republicanism.

Aristotle (384–322 B.C.E.): A student of Plato, this Athenian philosopher made seminal contributions to almost every field of knowledge. His physics lasted until the 17th century, his biology until Charles Darwin, and his logic until the late 19th century. He was a tutor to Alexander the Great. In the late Middle Ages, he was referred to as The Philosopher.

Bentham, Jeremy (1748–1832): The inventor of utilitarianism, or the ethical doctrine that we should act to maximize general happiness, which he applied to British legal traditions. He hoped thereby to create a scientific criterion for the reform of law.

Bergson, Henri (1859–1941): The French thinker who argued that the mathematical treatment of time was mistaken, as it construed durations as extensionless points. His metaphysics included a fundamental force for creativity in the universe, the élan vital.

Berkeley, George (1685–1753): This Irish empiricist, an Anglican bishop, took empiricism to the extreme of denying the existence of matter, thus becoming an idealist.

Broad, C. D. (**Charlie Dunbar**; 1887–1971): A member of the British emergentists and the author of *Mind and Its Place in Nature*.

Campbell, Donald T. (1916–1996): A psychologist by training, this American interdisciplinary thinker crossed many fields to become the major exponent of evolutionary epistemology, the view that our cognitive apparatus developed under natural selection.

Camus, Albert (1913–1960): The French existentialist author of *The Stranger*, *The Rebel*, and *The Plague*. After being rejected by the French postwar intellectual establishment because of his political moderation, he received a deserved rehabilitation as a major moral writer in the late 20th century.

Carnap, Rudolf (1891–1970): A Viennese philosopher of logic and science and one of the moving forces behind the logical positivism of the Vienna Circle. His principle of tolerance and incipient pragmatism remained modern as positivism came under attack.

Cassirer, Ernst (1874–1945): A neo-Kantian German polymath whose philosophy ranged from mathematics and physics to the philosophy of culture and the history of all. His most prominent role was as the premier theorist of culture in the 20th century and author of the three-volume *The Philosophy of Symbolic Forms*.

Copernicus, Nicolaus (1473–1543): The astronomer who formulated the modern heliocentric theory of the solar system. Its justification lay less in novel discoveries than in a far simpler mathematics.

Darwin, Charles (1809–1882): The naturalist who invented the modern theory of the evolution of species through natural selection. He is author of *On the Origin of Species by Means of Natural Selection* and *The Descent of Man*, among other works.

Davidson, Donald (1917–2003): An American analytic philosopher who made major contributions to a broad range of issues, including the theory of action, radical translation, metaphor, and the notion of supervenience.

de Beauvoir, Simone (1908–1986): One of the group of French existentialists, she was the author of *The Ethics of Ambiguity.* She also contributed one of the major works of midcentury feminism, *The Second Sex.*

de Saussure, Ferdinand (1857–1913): The Swiss linguist who first applied structuralist principles to language. He had an enormous impact, creating structural linguistics, which eventually led to the work of the famous Prague School.

Derrida, Jacques (1930–2004): A French poststructuralist and the inventor of deconstruction, a radical philosophy of reading philosophical texts as having multiple, indeterminable meanings. He was one of the main instigators of postmodernism in philosophy.

Descartes, René (1596–1650): This French philosopher and mathematician is often considered the father of modern philosophy because he inaugurated the view that all is to be seen from the standpoint of individual consciousness.

Dewey, John (1859–1952): The most prominent of the Americanist philosophers, Dewey made major contributions to philosophy, psychology, and education. He was politically active and associated with progressivism.

Engels, Friedrich (1820–1895): The longtime collaborator of Karl Marx whose father's business supported the two radicals for many years. He also wrote independently of Marx, including the books *Anti-Dühring*; *Socialism: Utopian and Scientific*; and most importantly, *The Origin of the Family, Private Property, and the State*.

Fichte, Johann Gottlieb (1762–1814): A German philosophy professor, Fichte regarded himself as finding the true meaning of Immanuel Kant's work and thereby making a bridge between Kant's critical idealism and German idealism. Fichte was also the author of the *Addresses to the German Nation*, one of the formative works of European nationalism.

Foucault, Michel (1926–1984): Along with Jacques Derrida, he is one of the two most influential poststructuralists and creators of philosophical postmodernism. Unlike Derrida, his work was essentially historical; he sought to portray how the language of the human sciences since the 16th century had constituted modern human being. He was heavily influenced by Friedrich Nietzsche's notions of genealogy and power.

Frege, Gottlob (1848–1925): As the foremost formulator of a non-Aristotelian logic in the late 19th century, Frege made many contributions to both 20th-century logic and analytic philosophy of language. He had a major impact on Bertrand Russell, Ludwig Wittgenstein, and Edmund Husserl.

Freud, Sigmund (1856–1939): The Austrian inventor of psychoanalysis, a psychiatric theory emphasizing unconscious drives and internal mental conflict. His work not only created a new form of psychological theory and treatment but has a continuing impact on cultural and literary analysis.

Gadamer, Hans-Georg (1900–2002): Influenced by Martin Heidegger, Gadamer rehabilitated the 19th-century tradition of biblical interpretation, hermeneutics, as a method of humanistic understanding. His most famous work was *Truth and Method*.

Habermas, Jürgen (b. 1929): The last representative of the Frankfurt School, a former assistant to Theodor Adorno, and the most prominent German social philosopher of the late 20th century. He combined American pragmatism with German thought into a theory of modern democracy. Author of *The Theory of Communicative Action*.

Harding, Sandra (b. 1935): An American philosopher best known for her contributions to feminist epistemology, she argues that modern theory of knowledge and science privileged a masculinist conception of knowledge as objective and based in distance rather than interaction.

Hegel, Georg Wilhelm Friedrich (1770–1831): The most influential philosopher of the 19th century, he constructed an idealist system in which Spirit or God actualizes itself through the course of human history through progressive revelations until the true science of Spirit, the perspective of the Whole, is eventually revealed.

Heidegger, Martin (1889–1976): One of the most influential philosophers of the 20th century, he combined the work of Edmund Husserl's phenomenology with that of Friedrich Nietzsche and Søren Kierkegaard to formulate existential phenomenology. Later, after joining the Nazi Party in 1933 and supporting national socialism throughout the war, he promoted a quasi-mystical philosophy of attentiveness to being.

Hobbes, Thomas (1588–1679): Known more for his great contributions to political philosophy as one of the first modern realists and social-contract theorists, the royalist Hobbes lived in exile in Paris during England's Puritan Revolution, where he was one of the original scientist-philosophers of the mid-17th century.

Horkheimer, Max (1895–1973): A member of the Frankfurt Institute before the Second World War, this philosopher was the author of *A Critique of Instrumental Reason* and a collaborator with Theodor Adorno on *Dialectic of Enlightenment*.

Hume, David (1711–1776): This Scottish philosopher and historian was the greatest skeptic of the modern period. His work created problems, particularly his critique of causality and of inductive reasoning. He played a major role in inspiring Immanuel Kant, and philosophers to the present day struggle to answer his views on induction.

Husserl, Edmund (1859–1938): This German philosopher of arithmetic and logic took a major turn to become the foremost philosopher of experience in the early 20th century. He invented the science of phenomenology as a nonnaturalistic, nonpsychological analysis of the meanings that arise in pure consciousness.

James, William (1842–1910): One of the Americanist philosophers, he made contributions to psychology (his *Principles of Psychology* was a major work of 19th-century scientific psychology) and to the philosophy of religion but is best remembered as the most prominent exponent of pragmatism. Late in his career, he created a pluralist metaphysics called radical empiricism.

Kant, Immanuel (1724–1804): One of the greatest and most influential philosophers of Western history. After a career as a mathematical physicist (he contributed to the formation of the nebular hypothesis), he wrote three major works: *Critique of Pure Reason* as an answer to David Hume's skepticism, *Critique of Practical Reason* to found the ultimate law of morality, and *Critique of Judgment* to form the objective basis of critical aesthetics. He thereby changed the theory of knowledge, ethics, and aesthetics forever and gave German philosophy a new start.

Kierkegaard, Søren Aabye (1813–1855): A religious philosopher who was one of the early influences on existentialism, Kierkegaard wrote a voluminous literature of philosophical reflection under pseudonymous authorship. He is the most intelligible critic of Reason, considering faith to be intrinsically irrational.

Kripke, Saul (b. 1940): An American analytic philosopher who contributed to philosophy of language, logic, and philosophy of mind. Most famously, he rejected Gottlob Frege and Bertrand Russell's canonical theory that names are shorthand for descriptions in favor of a causal or historical theory of reference.

Kuhn, Thomas S. (1922–1996): This American historian of science revolutionized his field by arguing in *The Structure of Scientific Revolutions* that science proceeds discontinuously, through periodic revolutions where one paradigm of fundamental concepts is thrown over for another, raising questions about the rationality of theory choice at those moments.

Leibniz, Gottfried Wilhelm (1646–1716): This early modern German philosopher was a true polymath, student of all sciences and mathematics. He made lasting but piecemeal changes to many areas, but he is best remembered for his unique metaphysics of monads.

Locke, John (1632–1704): The foremost English philosopher of the 17th century, he played a crucial role in both politics and the epistemology of the new science. His *Second Treatise on Government* and *Letter Concerning Toleration* justified England's Glorious Revolution of 1689 and helped to inspire American political thought. His later *Essay Concerning Human Understanding* made the case for an empiricist view of the new science.

Lyotard, Jean-François (1924–1998): This French poststructuralist's work was closest to political and legal theory, and his *The Postmodern Condition: A Report on Knowledge* became the most famous definition of philosophical and social postmodernism in the 1980s.

MacIntyre, Alasdair (b. 1929): This American philosopher was one of the most prominent ethicists of the second half of the 20th century. Early in his career, he participated in the rationality debate with Peter Winch and Ernest Gellner. Late in his career, he formulated a neo-Aristotelian notion of ethics and rationality itself in the books *After Virtue* and *Whose Justice? Which Rationality?*

Marcuse, Herbert (1898–1979): An associate of the Frankfurt Institute of Social Research, he became most famous later in his career as the theorist of the American new left in the 1960s, through his combination of neo-Marxist and Freudian social analysis.

Margolis, Joseph (b. 1924): An American philosopher with the rare ability to work deeply in all three 20th-century traditions: analysis, continental philosophy, and pragmatism. He is the author of many books seeking a pragmatist view of knowledge that accepts relativism but does not undermine a realist interpretation of science.

Marx, Karl (1818–1883): An early left Hegelian, Marx produced the most scientific version of socialism based on Georg Wilhelm Friedrich Hegel's dialectic. His theory eventually became the basis for all forms of Communism in the 20th century, beginning with the Russian Revolution.

Mead, George Herbert (1863–1931): This philosopher and social psychologist was one of the premier classic American philosophers, or pragmatists. A friend of John Dewey's, he derived mind and meaning from the social activity of the human organism, and in particular the human use of gesture.

Merleau-Ponty, Maurice (1908–1961): One of the circle of Second World War existentialists, Merleau-Ponty was perhaps the superior phenomenologist of the group, his works (in particular, *The Phenomenology of Perception*) having remained compelling far longer than those of Jean-Paul Sartre and others.

Mill, John Stuart (1806–1873): The most important English philosopher of the 19th century, he made major contributions to logic—although these became the target for a later generation of logicians—and political and ethical philosophy. His works on utilitarian ethics set the standard for that view, and his analysis of liberty in a republican society remains today the standard view. Mill was also an early advocate for the equality of women.

Moore, George Edward (1873–1958): One of the Cambridge founders of the analytic philosophical tradition, along with Bertrand Russell. His major contributions were, on the one hand, a series of essays showing skepticism and idealism to rest on nonsensical arguments, and on the other, a major work in ethics, *Principia Ethica*, which defended a view of the good as a nonnatural property.

Morgan, Conwy Lloyd (1852–1936): This English psychologist was the moving force behind the British emergentists and the author of *Emergent Evolution*.

Neurath, Otto (1882–1945): One of the Vienna Circle positivists. He is famous for his metaphor that in epistemology and logic we are like seamen trying to fix a ship we are sailing in, since we can only use the knowledge we have while we work on the same.

Newton, Isaac (1643–1727): The greatest scientist of early modern Europe. His discovery that the same laws of motion guide terrestrial objects and planets was the greatest achievement of the scientific revolution.

Nietzsche, Friedrich (1844–1900): The most radical philosophical critic of the Judeo-Christian tradition, and arguably of morality itself. Trained as a student of ancient languages, he identified with pre-Christian ancient values. Chronically ill and fated to become insane at age 45, Nietzsche cut a tragic figure, writing voluminously and brilliantly. He is the author of the phrase "God is dead."

Peirce, Charles Sanders (1839–1914): The inventor of pragmatism. A brilliant philosopher highly familiar with natural science, mathematics, and logic. He remains the source of much of the Americanist tradition of philosophy.

Plato (428/7–348/7 B.C.E.): The author of many dialogues in which Socrates is the main character. Plato is the middle man of the great series of teachers and students that constitutes the center of ancient Greek philosophy: Socrates, Plato, and Aristotle. Unlike his student Aristotle, he believed the intelligible forms of things are eternal and nonsensible, like mathematical objects.

Popper, Karl (1902–1994): An Austrian and then British philosopher of science whose contributions spanned from the logic of induction—where he created falsificationism to answer David Hume—to epistemology to the philosophy of biology to political philosophy (in his book *The Open Society and Its Enemies*). He was one of the most important philosophers of the 20th century.

Prigogine, Ilya (1917–2003): This Belgian chemist and Nobel Prize winner spearheaded work on complex systems in the second half of the 20th century with his focus on far-from-equilibrium dissipative systems.

Putnam, Hilary (b. 1926): A major American analytic philosopher of language and of mind, he was an early proponent of functionalism in the philosophy of mind. His later thought was heavily influenced by pragmatism and the work of J. L. Austin.

Quine, Willard Van Orman (1908–2000): Perhaps the most prominent American philosopher of the 20th century, he began as a student of the positivists but went on to undermine many of their doctrines and endorse ontological relativity.

Rorty, Richard (1931–2007): An analytic philosopher who came to critique the whole genre of analytic and continental philosophy. He was the most famous critic of foundationalism and regarded himself as a radical pragmatist.

Rousseau, Jean-Jacques (1712–1778): The Genevan philosopher who was the chief dissenter of the Enlightenment, denying that advances in the arts and sciences bring moral progress. He famously considered "primitive" man superior and inveighed against both social inequality and concern for social status.

Russell, Bertrand (1872–1970): The most prominent of the early English analytic philosophers, he was a logician, metaphysician, epistemologist, and political philosopher who wrote widely. He was also a famous pacifist and activist.

Sartre, Jean-Paul (1905–1980): The French philosopher who adapted Martin Heidegger's *Being and Time* into French existentialism. A member of the French resistance and a voluminous writer of essays, books, and plays, Sartre was perhaps the most famous philosopher in the world in the two decades after the Second World War.

Schelling, Friedrich Wilhelm Joseph von (1775–1854): The precocious younger friend of Georg Wilhelm Friedrich Hegel who produced the version of German idealism closest to a naturalistic theory.

Schopenhauer, Arthur (1788–1860): Author of a philosophy of pessimism that borrowed from Immanuel Kant the distinction of appearance and things in themselves but made the later will: sheer nonrational striving or power.

Sellars, Roy Wood (1880–1973): An American critical realist philosopher who also produced an evolutionary emergent metaphysics akin to that of the British emergentists. He is also father of the philosopher Wilfred Sellars.

Simon, Herbert A. (1916–2001): An American economist and psychologist who contributed to many fields, most famously concerning information processing in complex physical and social systems.

Smith, Adam (1723–1790): The canonical formulator of free-market capitalism, an economic system left undesigned and uncontrolled, in which the self-interested actions of producers and consumers spontaneously—as if guided by an invisible hand—increase productivity and the general quality of life.

Spencer, Herbert (1820–1903): One of the most prominent of 19th-century English philosophers, he produced a theory of the evolution of all civilization. Spencer was author of the phrase "survival of the fittest."

Spinoza, Baruch (1632–1677): This Jewish Dutch philosopher famously supported the new science and pantheism by arguing that all reality is one substance, which can be called *deus sive nature* (God or Nature).

Spivak, Gayatri Chakravorty (b. 1942): This postcolonial philosopher was born in India and educated there and in the United States. She incorporates feminist, Marxist, and Derridean perspectives to demonstrate how the literature of the colonial European powers constructs and subjugates the subaltern: women, the poor, and the non-Western.

Strauss, Leo (1899–1973): A controversial historian of political philosophy who had a significant impact on political theory and even American politics in the second half of the 20th century.

Voltaire (a.k.a. **François-Marie Arouet**; 1694–1778): The most famous intellectual and man of letters of 18th-century France. He criticized the traditional authorities of royal government and the church and wrote *Candide*.

Weber, Max (1864–1920): He was perhaps the greatest of a long line of German social theorists of the modern age. He authored *The Protestant Ethic and the Spirit of Capitalism*, which found cultural-religious dispositions to lie behind the emergence of capitalist modernity.

West, Cornel (b. 1953): This prominent African American philosopher and minister has worked in many areas of philosophy and as a public philosopher in the Jamesian and Deweyan tradition. As author of *The American Evasion of Philosophy*, he argues for a "prophetic pragmatism" on the basis of the Americanist tradition.

Whitehead, Alfred North (1861–1947): A British mathematician by training, he collaborated with Bertrand Russell to compose the most important work of logic of the 20th century, *Principia Mathematica*, and went on to formulate a unique process metaphysics of reality that incorporated relativity and quantum theory.

Wimsatt, William C. (b. 1941): A philosopher of biology at the University of Chicago, he has done the most sophisticated recent work on emergence and reductive explanation in the context of actual scientific practice.

Wittgenstein, Ludwig (1889–1951): This Austrian was perhaps the most influential philosopher of the 20th century. His early work in logic led to the *Tractatus Logico-Philosophicus*, which influenced the Vienna Circle. After leaving philosophy for many years, he returned to Cambridge to formulate a new philosophy of meaning as used in his *Philosophical Investigations*.

Young, Iris Marion (1949–2006): This American feminist political philosopher was influenced by poststructuralist thought and was the author of many books, including *Justice and the Politics of Difference* and *"Throwing Like a Girl" and Other Essays in Feminist Philosophy and Social Theory*.

Bibliography

Adorno, Theodor, and Max Horkheimer. *Dialectic of Enlightenment*. Translated by John Cumming. New York: Seabury, 1972. Makes the difficult but startling argument that social freedom requires Enlightenment thought, but that the latter by nature leads to Fascism! Leaves us in a very nasty spot.

Arendt, Hannah. *The Human Condition*. Chicago: University of Chicago Press, 1958. A brilliant theory of the relation of labor (work or the creation of artifacts) to political action and critique of modernity (both liberal capitalist and Marxist) for subjugating politics to economics.

Aristotle. *Categories and De Interpretatione.* Translated by J. L. Ackrill. Oxford: Oxford University Press, 1975. The *Categories* are Aristotle's most famous logical work. By defining substance and the other nine categories of all being, it provides an excellent introduction to his *Metaphysics*.

———. *Metaphysics.* Translated by David Bostock. New York: Oxford University Press, 1994. Aristotle's classic account of the nature of substance, potentiality, and actuality. One of the most important works in the Western tradition.

———. *On the Soul*. In *Introduction to Aristotle*, edited by Richard McKeon, translated by J. A. Smith. New York: Random House, 1947. Aristotle's account of psyche, soul, or the life principle and its three levels: vegetative, animal, and human.

———. *Physics.* Translated by Robin Waterfield. New York: Oxford University Press, 1999. Aristotle's account of the physical world, definitive for science until the 17th century.

Barrett, William. *Irrational Man: A Study in Existential Philosophy*. Garden City, NY: Anchor, 1962. A good introduction to existentialism, including chapters on Søren Kierkegaard, Friedrich Nietzsche, Martin Heidegger, and Jean-Paul Sartre.

Baudrillard, Jean. *America.* New York: Verso, 1989. A wild ride through America by the poststructuralist Baudrillard regards the American landscape as a set of symbols of the postmodern hyperreality. A very interesting read for Americans, if not the best way to understand Baudrillard's basic view.

———. *Selected Writings*. Edited by Mark Poster. Stanford, CA: Stanford University Press, 1988. The writings of the maverick postmodernist theorist of media culture and hyperreality.

Berkeley, George. *Three Dialogues between Hylas and Philonous*. LaSalle, IL: Open Court, 1938. Berkeley argues from empiricism to the nonexistence of matter.

Blitz, David. *Emergent Evolution: Qualitative Novelty and the Levels of Reality*. Dordrecht, Netherlands: Kluwer, 1992. A good historical account of British emergentism.

Bordo, Susan. *The Flight to Objectivity: Essays on Cartesianism and Culture*. Albany: State University of New York Press, 1987. A feminist interpretation of René Descartes and the modern masculinist ideal of knowledge.

Brentano, Franz. *Psychology from an Empirical Standpoint.* Translated by A. C. Rancurello, D. B. Terrell, and Linda L. McAlister. New York: Routledge, 1973. Contains the description of intentionality that helped to inform Edmund Husserl's phenomenology.

Burtt, E. A. *The Metaphysical Foundations of Modern Science*. Mineola, NY: Dover, 2003. A useful summary of the metaphysical ideas of key figures of the 17th-century scientific revolution.

Cahoone, Lawrence. *Cultural Revolutions: Reason versus Culture in Philosophy, Politics, and Jihad*. University Park, PA: Penn State University Press, 2005. A philosophical interpretation of the nature of culture and its role in recent epistemology and political philosophy.

———. *The Ends of Philosophy: Pragmatism, Foundationalism, and Postmodernism.* Malden, MA: Blackwell, 2003. A critical comparison of pragmatic and postmodern responses to the end of foundationalism.

———, ed. *From Modernism to Postmodernism: An Anthology.* Malden, MA: Blackwell, 2003. A useful anthology of primary texts from the 17th to 20th centuries, covering mostly philosophy but also related economics, sociology, and art.

Campbell, Donald T. "Evolutionary Epistemology." In *Evolutionary Epistemology, Rationality, and the Sociology of Knowledge*, edited by Gerard Radnitzky and W. W. Bartley III. LaSalle, IL: Open Court, 1987. The most famous essay on evolutionary epistemology, by the man who invented the term.

Carnap, Rudolf. *The Logical Syntax of Language.* Translated by Amethe Smeaton. Chicago: Open Court, 2002. The leading logical positivist's attempt to formulate a theory of linguistic meaning.

Cassirer, Ernst. *The Philosophy of Symbolic Forms*. 3 vols. New Haven, CT: Yale University Press, 1953–1957. Cassirer's magnum opus, the most comprehensive philosophy of culture and its development by a 20th-century philosopher.

Clayton, Philip, and Paul Davies. *The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion.* Oxford: Oxford University Press, 2008. A recounting of the return of the concept of emergence in recent scientific work on complexity and philosophy of mind, and of its potential as a basis in rethinking the relationship of science and religion.

Darwin, Charles. *The Descent of Man*. Princeton, NJ: Princeton University Press, 1981. Darwin's application of his theory of evolution to humans.

———. *On the Origin of Species by Means of Natural Selection*. Oxford: Oxford University Press, 1996. The great work that presented natural selection as the key to the evolution of species.

de Beauvoir, Simone. *The Ethics of Ambiguity*. Translated by Bernard Frechtman. New York: Citadel Press, 1967. The most prominent attempt of a major existentialist at an ethics.

———. *The Second Sex*. Translated by H. M. Parshley. New York: Knopf, 1953. A classic work of second-wave feminism by the existentialist philosopher.

de Saussure, Ferdinand. *Course in General Linguistics.* Translated by Wade Baskin. New York: McGraw-Hill, 1966. De Saussure's structuralist approach to language, which influenced later structuralism and poststructuralism.

Derrida, Jacques. "Differance." In *Speech and Phenomena and Other Essays on Husserl's Theory of Signs*, translated by David B. Allison. Evanston, IL: Northwestern University Press, 1973. One of Derrida's most famous essays, it introduces the notion of differance.

———. *Of Grammatology*. Translated by Gayatri Chakravorty Spivak. Baltimore: Johns Hopkins University Press, 1974. Derrida's account of his view as a new study of writing. The first part is a good introduction to Derrida's theory of writing.

———. "Structure, Sign and Play in the Discourse of the Human Sciences." In *Writing and Difference*, translated by Alan Bass. Chicago: University of Chicago Press, 1978. An important early essay of Derrida's, situating his new view with respect to the methods of the human sciences.

Descartes, René. *Meditations on First Philosophy*. In *The Philosophical Works of Descartes*, vol. 1, translated by Elizabeth Haldane and G. R. T. Ross. Cambridge: Cambridge University Press, 1975. Descartes' most famous short attempt to provide a new non-Scholastic (hence non-Aristotelian) foundation for knowledge and science. *See also* Kenny, *Descartes*.

Descombes, Vincent. *Modern French Philosophy.* Translated by L. Schott-Fox and J. M. Harding. New York: Cambridge University Press, 1980. A good description of post–World War II French philosophy and the developments that led to poststructuralism.

Dewey, John. *Art as Experience.* Vol. 10 of *The Later Works of John Dewey.* Carbondale: Southern Illinois University Press, 2008. Dewey's book on aesthetics is important for understanding that his notion of the practical and instrumental is meant to be combined with a recognition of the intrinsic ends, or consummatory values, in experience.

———. *Experience and Nature.* New York: Dover, 1958. Dewey's naturalistic magnum opus.

———. *Reconstruction in Philosophy.* Boston: Beacon, 1948. A useful statement of Dewey's attempt to understand philosophy itself as a means for the reconstruction of experience.

Fichte, Johann Gottlieb. *The Science of Knowledge.* Translated by Walter Wright. Albany: State University of New York Press, 2005. The best account of Fichte's metaphysics.

———. *The Vocation of Man*. Translated by William Smith. LaSalle, IL: Open Court, 1940. A popular work of Fichte's that shows the moral and social implications of his metaphysics.

Floyd, Juliet, and Sanford Shieh. *Future Pasts: The Analytic Tradition in Twentieth-Century Philosophy*. Oxford: Oxford University Press, 2001. A nice collection of reflections on the history of analytic philosophy.

Foucault, Michel. "Truth and Power." In *The Foucault Reader*, edited by Paul Rabinow. New York: Pantheon, 1984. The essay is Foucault's Nietzschean reading of truth as itself an effect of the will to power. The reader is a very useful collection of Foucault's work.

Frege, Gottlob. *The Frege Reader*. Edited by Michael Beaney. Malden, MA: Wiley-Blackwell, 1997. Highlights of this collection include "On Sense and Reference," "Function and Concept," "On Concept and Object," and selections from *Begriffsschrift* and *The Foundations of Arithmetic*.

Freud, Sigmund. *Civilization and Its Discontents*. Translated by James Strachey. New York: W. W. Norton, 1962. Freud's late speculative work arguing that the progress of civilization inevitably leads to an increase in the sense of guilt, and hence unhappiness.

Gadamer, Hans-Georg. *Truth and Method*. Translated by Joel Weinsheimer and Donald G. Marshall. New York: Continuum, 1994. The most prominent expression of 20th-century hermeneutics in the human sciences.

Gay, Peter. *The Enlightenment*: *An Interpretation*. 2 vols. New York: Knopf, 1966–1969. An accessible intellectual history of the 18th century.

Habermas, Jürgen. *The Theory of Communicative Action*. Translated by Thomas McCarthy. 2 vols. Boston: Beacon Press, 1984, 1987. Habermas's brilliant magnum opus provides his unique theory of modernity, combining epistemology and social theory.

Harding, Sandra. *The Science Question in Feminism*. Ithaca, NY: Cornell University Press, 1986. One of the major statements of feminist epistemology.

Hegel, Georg Wilhelm Friedrich. *Phenomenology of Spirit*. Translated by A. V. Miller. Oxford: Oxford University Press, 1977. Hegel's most beautiful work is actually an introduction to his three-volume *Encyclopedia*. It presents the development of the forms of human spirit throughout history.

Heidegger, Martin. *Being and Time.* Translated by Joan Stambaugh. Albany: State University of New York Press, 1996. The newest translation of Heidegger's most important work, one of the two most influential philosophy books of the 20th century.

———. *Martin Heidegger: Basic Writings*. Edited by David Farrell Krell. New York: Harper and Row, 1977. The best collection of Heidegger's later writings, it also includes the introductions to *Being and Time*.

Hume, David. *An Enquiry Concerning Human Understanding*. New York: Liberal Arts, 1955. Hume's skeptical epistemology, published separately a few years after his *Treatise of Human Nature*.

———. *A Treatise of Human Nature*. Oxford: Oxford University Press, 1975. Hume's great early work, presenting both his epistemological skepticism and his ethics. See especially the conclusion to book 1.

Husserl, Edmund. *Cartesian Meditations.* Translated by Dorian Cairns. The Hague: Nijhoff, 1977. Another of Husserl's introductions to phenomenology, this one specifically relates his theory to René Descartes. Also, the final meditation is Husserl's attempt to show that phenomenology can account for intersubjectivity, or sociality.

———. *The Crisis of the European Sciences and Transcendental Phenomenology.* Translated by David Carr. Evanston, IL: Northwestern University Press, 1970. Husserl's historical introduction to phenomenology, written late in his career, was influenced by Martin Heidegger and the rise of existentialism.

———. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. Translated by Fred Kersten. 2 vols. Dordrecht, Netherlands: Kluwer, 1998. Husserl's first book-length introduction to transcendental phenomenology. *See also* Kohák, *Idea and Experience*.

James, William. *Pragmatism.* Indianapolis, IN: Hackett, 1981. The classic statement of James's version of pragmatism.

Kant, Immanuel. *Critique of Pure Reason*. Translated by Paul Guyer and Allen W. Wood. New York: Cambridge University Press, 1998. The great epistemological work of Kant, who changed philosophy forever with his Copernican revolution.

———. *Prolegomena to Any Future Metaphysics*. Translated by James Ellington. Indianapolis, IN: Hackett, 2002. This is Kant's shorter popularization of the argument of his *Critique of Pure Reason*. A perfectly good presentation of his critical philosophy, it presents the *Critique*'s main doctrines in novel formulations that are worth reading for their own sake.

———. *Religion within the Limits of Reason Alone*. Translated by Theodore M. Greene and Hoyt H. Hudson. New York: Harper, 1960. An expression of Kant's deism, understood as natural, or rational, religion: religion not based on revelation.

Kenny, Anthony. *Descartes: A Study of his Philosophy*. New York: Random House, 1968. A good secondary work on René Descartes.

———. *The Legacy of Wittgenstein.* Oxford: Basil Blackwell, 1984. A good secondary work on Ludwig Wittgenstein.

Kierkegaard, Søren. *Fear and Trembling: A Dialectical Lyric*. Translated by Walter Lowrie. Princeton, NJ: Princeton University Press, 1941. Kierkegaard's defense of religion as antirational and nonethical, rooted in his analysis of the biblical tale of Abraham and Isaac.

———. *The Point of View for My Work as an Author: A Report to History and Related Writings*. Translated by Walter Lowrie. New York: Harper, 1962. Kierkegaard's explanation of his use of pseudonyms in his other works.

Kohák, Erazim. *Idea and Experience: Edmund Husserl's Project of Phenomenology in Ideas I.* Chicago: University of Chicago Press, 1978. A good introduction to Husserlian phenomenology.

Koyré, Alexandre. *From the Closed World to the Infinite Universe.* Baltimore: Johns Hopkins University Press, 1968. A nice historical work on the change from the medieval to the modern view of the universe.

Kuhn, Thomas S. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press, 1962. Kuhn's bombshell, one of the most influential books of the second half of the 20th century, which argued that science advances through revolutions where one paradigm is replaced by another.

Leibniz, Gottfried Wilhelm. *Discourse on Metaphysics, Correspondence with Arnauld, and Monadology*. LaSalle, IL: Open Court, 1945. Leibniz's neo-Aristotelian metaphysics of atomic substances, or monads. Read the *Monadology* last.

Lévi-Strauss, Claude. *The Raw and the Cooked*. Translated by John and Doreen Weightman. Chicago: University of Chicago Press, 1983. A prominent example of Claude Lévi-Strauss's structuralist approach to anthropology.

Locke, John. *Essay Concerning Human Understanding*. New York: Routledge, 2000. The most comprehensive statement of early modern empiricism by the most important English philosopher of the 17th century.

Lorenz, Konrad. "Kant's Doctrine of the A Priori in the Light of Contemporary Biology." In *Konrad Lorenz: The Man and His Ideas*, edited by Richard I. Evans, 129–217. New York: Harcourt Brace Jovanovich, 1975. A wonderful statement of evolutionary epistemology as a response to Immanuel Kant's theory of knowledge.

Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Briam Massumi. Minneapolis: Minnesota University Press, 1984. The most famous and best statement of the postmodern as the condition of post–World War II Western society.

MacIntyre, Alasdair. *After Virtue*. Notre Dame, IN: University of Notre Dame Press, 1984. MacIntyre's critique of modernity's deontological, existential, and utilitarian approaches to ethics, in favor of the Aristotelian virtue ethics approach.

———. *Whose Justice? Which Rationality*? Notre Dame, IN: University of Notre Dame Press, 1988. MacIntyre's argument that rationality itself must be embedded in historical traditions.

Marcuse, Herbert. *One-Dimensional Man*. Boston: Beacon Press, 1955. A prominent statement of the late Frankfurt School, combining the ideas of Sigmund Freud and Karl Marx to critique late capitalist society.

Margolis, Joseph. *Pragmatism without Foundations: Reconciling Realism and Relativism*. New York: Basil Blackwell, 1986. A difficult but important attempt to retain realism while accepting relativism, all on a pragmatic basis.

Marx, Karl, with Friedrich Engels. *Economic and Philosophic Manuscripts of 1844*. In *The Marx-Engels Reader*, edited by Robert Tucker. New York: Norton, 1972. The early, or "Western" Marx, primarily concerned with the alienation of the individual.

———. *Manifesto of the Communist Party*. In Tucker, *The Marx-Engels Reader*. Section 2 of this political pamphlet contains Marx's best description of modernity.

———. Preface to *A Contribution to the Critique of Political Economy*. In Tucker, *The Marx-Engels Reader*. This contains the best short summary of Marx's entire theory.

Merleau-Ponty, Maurice. *The Phenomenology of Perception*. Translated by Colin Smith. New York: Humanities Press, 1962. A classic post-Husserlian theory of human experience. Merleau-Ponty is arguably the most phenomenologically astute and interesting of the existential phenomenologists.

Mill, John Stuart. *On Liberty*. Indianapolis, IN: Hackett, 1978. The most famous statement of the proper limits on group interference in the liberty of the individual ever written.

———. *A System of Logic*. London: Routledge and Kegan Paul, 1974. The view of logic and inquiry that was most influential for the second half of the 19th century, and against which Fregean analytic philosophy and Husserlian phenomenology rebelled.

———. *Utilitarianism*. Indianapolis, IN: Hackett, 1979. The classic definition of Mill's version of the moral theory of utilitarianism.

Monk, Ray. *Wittgenstein: The Duty of Genius*. New York: Free Press, 1990. An excellent biography of Ludwig Wittgenstein, also a good introduction to his philosophy.

Moore, George Edward. "A Defence of Common Sense." In *G. E. Moore: Selected Writings*, edited by Thomas Baldwin. New York: Routledge, 1993. Another classic Moore essay against skepticism and idealism.

———. "Proof of an External World." In *G. E. Moore: Selected Writings*, edited by Thomas Baldwin. New York: Routledge, 1993. Moore's attack on idealism and skepticism, which Ludwig Wittgenstein responded to in *On Certainty*.

Murphy, John P. *Pragmatism: From Peirce to Davidson*. Boulder, CO: Westview Press 1990. A good, short summary of pragmatism in both the classical American thinkers and among key analytic philosophers through the 20th century.

Nietzsche, Friedrich. *Beyond Good and Evil*. Translated by Walter Kaufmann. New York: Random House, 1966. All in all, this is perhaps the most representative of Nietzsche's mature aphoristic works, covering all the major topics in his philosophy.

———. *The Gay Science*. Translated by Walter Kaufmann. New York: Random House, 1974. This aphoristic work is particularly important in expressing the death of God, the eternal return, and Nietzsche's conclusion that a joyful response to them is possible.

———. *On the Genealogy of Morals*. Translated by Francis Golffing. Garden City, NY: Anchor Books, 1956. The best expression of Nietzsche's critique of Judeo-Christian morality, in three essays, not aphorisms.

Passmore, John. *A Hundred Years of Philosophy.* Harmondsworth, UK: Penguin Books, 1968. Probably the best history of philosophy—mostly

Anglo-American, with some European thinkers—from the mid-19th century through about 1950.

Peirce, Charles Sanders. "How to Make Our Ideas Clear." In *Philosophical Writings of Peirce*, edited by Justus Buchler. Mineola, NY: Dover, 1955. Peirce's first published definition of pragmatism, although he doesn't use the word.

Pinkard, Terry. *Hegel: A Biography.* New York: Cambridge University Press, 2000. A good biography by a major contemporary Hegel scholar.

Popper, Karl. *Conjectures and Refutations: The Growth of Scientific Knowledge.* New York: Basic Books, 1962. A good presentation of the views of Popper, one of the most important philosophers of science of the 20th century.

———. "Natural Selection and the Emergence of Mind." In *Evolutionary Epistemology, Rationality, and the Sociology of Knowledge*, edited by G. Radnitzky and W. W. Bartley III. LaSalle, IL: Open Court. 1987. This essay is Popper's contribution to evolutionary epistemology.

Prigogine, Ilya, and Isabelle Stengers. *Order out of Chaos: Man's New Dialogue with Nature*. New York: Bantam, 1984. The famous expression of the new concern for complexity in late 20th-century physical and chemical science, by the Nobel Prize winner Priogogine.

Putnam, Hilary. *Reason, Truth, and History*. Cambridge: Cambridge University Press, 1981. An excellent summary of Putnam's early- to midcareer views, in which he seeks a pragmatic realism.

Quine, Willard Van Orman. *Ontological Relativity and Other Essays.* New York: Columbia University Press, 1969. A good collection of some of Quine's most important essays, especially on natural kinds, ontological relativity, and naturalistic epistemology.

———. "Two Dogmas of Empiricism." In *From a Logical Point of View: Nine Logico-Philosophical Essays*. Cambridge, MA: Harvard University Press, 1980. In one of the most influential papers of the 20th century, Quine undermines two of the pillars of logical positivism.

———. *Word and Object*. Cambridge, MA: MIT Press, 1964. Quine's famous systematic expression of his behaviorism; chapter 2 presents the indeterminacy of translation thesis (about "gavagai").

Randall, John Herman. *The Career of Philosophy*. 3 vols. New York: Columbia University Press, 1965. This is a wonderful history of philosophy since the Renaissance, emphasizing philosophy's relation to history and culture, not just philosophical doctrines.

Rorty, Richard. *Consequences of Pragmatism: Essays, 1972–1980*. Minneapolis: University of Minnesota Press, 1982. This is a good introduction to Rorty's mature views in relation to pragmatism.

———. *The Linguistic Turn: Recent Essays in Philosophical Method*. Chicago: University of Chicago Press, 1967. This is a nice anthology of Rorty's analytic philosophy, before his postmodern turn.

———. *Objectivity, Relativism, and Truth*. Cambridge: Cambridge University Press, 1991. Helps to refine some of the ideas of Rorty's *Philosophy and the Mirror of Nature.*

———. *Philosophy and the Mirror of Nature*. Princeton, NJ: Princeton University Press, 1979. Perhaps the most influential philosophy book in English of the late 20th century, in which Rorty first expresses the views that made him famous.

Rousseau, Jean-Jacques. *The First and Second Discourses*. Translated by Judith Masters. New York: St. Martin's Press, 1969. Rousseau's criticisms of the modern age, for which he was heavily criticized by other Enlightenment figures.

———. *On the Social Contract, with Geneva Manuscript and Political Economy*. Translated by Judith Masters. New York: St. Martin's Press, 1978. Rousseau's social contract theory of politics.

Russell, Bertrand. *A Critical Exposition of the Philosophy of Leibniz, with an Appendix of Leading Passages.* Ithaca, NY: Cornell University Press, 2009. Russell's remarkably good examination of Gottfried Wilhelm Leibniz. This also shows that Leibniz is the one 17th-century metaphysician that had special relevance to early analytic philosophy.

———. "Descriptions." In *Twentieth-Century Philosophy: The Analytic Tradition*, edited by Morris Weitz. New York: Free Press, 1966. This is one version of Russell's famous theory of descriptions, prominent in 20th-century analytic philosophy until it was attacked by Saul Kripke.

———. "A Free Man's Worship." In *Mysticism and Logic*. Mineola, NY: Dover, 2004. This is Russell's famous atheist essay.

———. *The Philosophy of Logical Atomism*. LaSalle, IL: Open Court, 1985. Russell's most comprehensive positivist philosophical statement.

Sartre, Jean-Paul. *Being and Nothingness.* Translated by Hazel E. Barnes. New York: Washington Square, 1993. Sartre's central metaphysical statement on being-for-itself, or consciousness, and being-in-itself.

———. "Existentialism as a Humanism." In Cahoone, *From Modernism to Postmodernism*. The classic lecture introducing Sartrean existentialism to a popular audience, delivered in Paris during the German occupation.

Schelling, Friedrich Wilhelm Joseph von. *Philosophical Inquiries into the Nature of Human Freedom.* Translated by James Gutmann. LaSalle, IL: Open Court, 1936. Schelling's provocative statement on freedom, the problem of evil, the Absolute, and creation.

Schopenhauer, Arthur. *The World as Will and Representation.* Translated by E. F. J. Payne. New York: Dover, 1969. Schopenhauer's major work substitutes will for things in themselves, in effect making a historical bridge between his predecessor Immanuel Kant and his successor Friedrich Nietzsche.

Sherburne, Donald. *A Key to Whitehead's "Process and Reality."* New York: Macmillan, 1966. This is an excellent introduction to the difficult Alfred North Whitehead book. Keep the glossary at your elbow while reading *Process and Reality*.

Simon, Herbert A. "The Architecture of Complex Systems." *Proceedings of the American Philosophical Society* 162 (1962): 467–482. Simon's argument that natural selection, or trial-and-error processes, can only have achieved the complex forms that exist if it operated on hierarchically arranged systems. So naturally evolved systems must be hierarchically organized.

Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Indianapolis, IN: Liberty Fund, 1982. This classic statement on the new market economy by the great Scottish Enlightenment philosopher is one of the most influential works of the 18th century.

Spinoza, Baruch. *Ethics*. New York: Penguin Books, 1996. This is Spinoza's greatest work, arguing from the fact that all reality is one substance and its attributes, to strict determinism, to the implications for the ethical life. *See also* Wolfson, *The Philosophy of Spinoza*.

Spivak, Gayatri Chakravarty. "Can the Subaltern Speak?" in Cahoone, *From Modernism to Postmodernism*. Spivak's famous expression of postcolonial philosophy, related to postmodernism and poststructuralism.

———. *In Other Worlds: Essays in Cultural Politics*. New York: Methuen, 1987. This book provides a broader range of Spivak's work.

Strauss, Leo. *Natural Right and History*. Chicago: University of Chicago Press, 1999. This work is Strauss's critique of modern political philosophy.

Weber, Max. *The Protestant Ethic and the Spirit of Capitalism.* Translated by Talcott Parsons. Mineola, NY: Dover, 2003. Weber's most famous work argues that the inner-worldly asceticism of Protestantism (versus Catholicism) played a central role in forming the modern capitalist world.

———. "Science as a Vocation" In *From Max Weber: Essays in Sociology*, translated by H. H. Gerth and C. Wright Mills. New York: Oxford University Press, 1946. This classic work of philosophical sociology, on the distinctiveness of the modern age, is a must-read.

Weitz, Morris. *Twentieth-Century Philosophy: The Analytic Tradition*. New York: Free Press, 1966. A good collection of essays in early- to mid-20th-century analytic philosophy.

West, Cornel. *The American Evasion of Philosophy*. Madison: University of Wisconsin Press, 1989. This work expresses West's broader view of "prophetic pragmatism," using the American pragmatic tradition for social change.

———. "A Genealogy of Modern Racism." In Cahoone, *From Modernism to Postmodernism*. This essay is an example of the application of poststructuralist methods to the problem of race.

Whitehead, Alfred North. *Process and Reality: An Essay in Cosmology*. New York: Free Press, 1969. This is Whitehead's magnum opus on metaphysics and cosmology. *See also* Sherburne, *A Key to Whitehead's "Process and Reality."*

———. *Science and the Modern World.* New York: Mentor Press, 1925. A more accessible work than *Process and Reality*.

Whitehead, Alfred North, and Bertrand Russell. *Principia Mathematica*. 3 vols. Cambridge: Cambridge University Press, 1950. The famous logicist attempt to derive mathematics from logic is one of the most influential works of the 20th century.

Wimsatt, William C. *Re-Engineering Philosophy for Limited Beings: Piecewise Approximations to Reality*. Cambridge, MA: Harvard University Press, 2007. An excellent interdisciplinary postpositivist philosophy of science arguing that reductive explanation and emergence are compatible.

Wittgenstein, Ludwig. *On Certainty*. Translated by Denis Paul and G. E. M. Anscombe. New York: Harper and Row, 1972. Wittgenstein's last work, it shares the viewpoint of his *Philosophical Investigations* but is trained on the philosophical quest for certainty. *See also* Monk, *Wittgenstein* and Kenny, *The Legacy of Wittgenstein*.

———. *Philosophical Investigations*. Translated by G. E. M. Anscombe. New York: Macmillan, 1953. In what is perhaps the most influential philosophical work of the 20th century, Wittgenstein forms a new philosophy of language games. *See also* Monk, *Wittgenstein* and Kenny, *The Legacy of Wittgenstein*.

———. *Tractatus-Logico Philosophicus*. Translated by D. F. Pears and B. F. McGuiness. London: Routledge and Kegan Paul, 1981. Wittgenstein's early work on logic and knowledge that was greatly admired by the positivists. The famous ending endorses a kind of mysticism. *See also* Monk, *Wittgenstein* and Kenny, *The Legacy of Wittgenstein*.

Wolfson, Harry Austryn. *The Philosophy of Spinoza*: *Unfolding the Latent Processes of His Reasoning*. Cambridge, MA: Harvard University Press, 1934. This is a famous secondary work on Baruch Spinoza.

Young, Iris Marion. *Justice and the Politics of Difference*. Princeton, NJ: Princeton University Press, 1990. This work is a fine example of feminist politics inspired partly by poststructuralism or postmodernism.