GLOSSARY OF PHILOSOPHICAL TERMS

Some of the bolded words in the text are mere cognates to the words that appear in this glossary, so if you are unable to find the precise word that was bolded in the text, try looking for cognate words.

absolutism The view that there are some types of action that are strictly prohibited by morality, no matter what the specific facts are in a particular case. Some have held, for example, that the intentional torturing or killing of an innocent person is morally impermissible no matter what bad consequences could be prevented by such an action. Absolutism is an especially strict kind of *deontological* view. It is discussed by Thomas Nagel in "War and Massacre."

accidental and **essential** A property is essential for an object if the object must have the property to exist and be the kind of thing that it is. A property is accidental if the object has the property, but doesn't have to have it to exist or be the kind of thing that it is.

Suppose Fred has short hair. That is an accidental property of his. He would still be Fred, and still be a human being, if he let his hair grow long or shaved it off completely. An essential property is one that a thing has to have to be the thing that it is, or to be the kind of thing it fundamentally is. As a human being, Fred wouldn't exist unless he had a human body, so having a human body is an essential property of his.

Statements about which properties are essential tend to be controversial. A *dualist* might disagree about our last example, arguing that Fred is fundamentally a mind that might exist without any body at all, so having a body isn't one of his essential properties. Someone who has been reading Kafka's *Metamorphoses* might argue that Fred could turn into a cockroach, so having a *human* body isn't one of his essential properties. Some philosophers argue that the metaphysical idea that underlies the accidental–essential distinction is wrong. Things belong to many kinds, which are more or less important for various classificatory purposes, but there is no kind that is more fundamental than all others apart from such purposes. Quine, a leading skeptic, gives the example of a bicyclist: If Fred is a bicyclist, is he necessarily two-legged?

affirming the consequent Affirming the consequent is the logical fallacy committed by arguments of the following form:

If P, then Q.
Q.
Therefore, P.

This is an invalid argument form. Consider this argument, which affirms the consequent:

If Jones is 20 years old, then Jones is younger than 50 years old.
Jones is younger than 50 years old.
Therefore, Jones is 20 years old.

Clearly, this argument is a bad one: Jones could be any age younger than 50.

When someone affirms the consequent, often he or she is mistaking his or her inference as a harmless instance of *modus ponens*.

agent-causation Agent-causation is a (putative) type of causation that can best be understood by contrasting it with *event-causation.* When a ball hits and breaks a window, one may think of the causal relationship here in terms of one event causing another, namely, *the ball's hitting the window* causing *the window's being broken.* In an instance of *agent* causation, it is not one *event* that causes another. Rather, an agent—a persisting substance—causes an event. Some philosophers, such as Roderick Chisholm (see Chisholm, "Human Freedom and the Self") have argued that agent-causation is required for genuine free will. Agent-causation is also (see Chisholm) sometimes referred to as *immanent causation,* and event causation sometimes referred to as *transeunt causation.*

ampliative/nonampliative inference *See* **deductive argument.**

analogy An analogy is a similarity between things. In an argument from analogy, one argues from known similarities to further similarities. Such arguments often occur in philosophy. In his *Dialogues Concerning Natural Religion,* David Hume considers an argument from analogy that purports to show that the universe was created by an intelligent being. The character Cleanthes claims that the world as a whole is similar to things like clocks. A clock has a variety of interrelated parts that function together in ways that serve ends. The world is also a complex of interrelated parts that function in ways that serve ends, such as providing food for human consumption. Clocks are the result of intelligent design, so, Cleanthes concludes, probably the world as a whole is also the product of intelligent design. Hume's character Philo criticizes the argument. In "The Argument from Analogy for Other Minds," Bertrand Russell uses an argument from analogy to try to justify his belief that other conscious beings exist.

Arguments from analogy are seldom airtight. It is possible for things to be very similar in some respects, but quite different in others. A loaf of bread might be about the same size and shape as a rock. But it differs considerably in weight, texture, taste, and nutritive value. A successful argument from analogy needs to defend the relevance of the known analogies to the argued for analogies.

analytic and **synthetic** Analytic statements are those that are true (or false) in virtue of the way the ideas or meanings in them fit together. A standard example is "No bachelor is married." This is true simply in virtue of the meanings of the words. "No bachelor is happy," on the other hand, is synthetic. It isn't true or false just in virtue of the meanings of the words. It is true or false in virtue of the experiences of bachelors, and these can't be determined just by thinking about the meanings of the words.

The analytic/synthetic distinction is closely related to the *necessary–contingent* distinction and the *a priori–a posteriori* distinction; indeed, these three distinctions are often confused with one another. But they are not the same. The last one has to do with knowledge, the middle one with possibility, and the first one with meaning. Although some philosophers think that the three distinctions amount to the same thing, others do not. Kant maintains that truths of arithmetic are a priori and necessary but not analytic. Kripke maintains that some identity statements are necessary, but not analytic or a priori.

analytical philosophy The term *analytical philosophy* is often used for a style of doing philosophy that was dominant throughout most of the twentieth century in Great Britain, North America, Australia, and New Zealand. This way of doing philosophy puts great emphasis on clarity, and it usually sees philosophy as a matter of clarifying important concepts in the sciences, the humanities, politics, and everyday life, rather than providing an independent source of knowledge. Analytical philosophy is often contrasted with *continental philosophy*, the sort of philosophy that has been more dominant in France, Germany, Spain, Italy, and some other European countries.

The term was first associated with the movement initiated by Bertrand Russell and G. E. Moore early in the twentieth century to reject the idealistic philosophy of F. H. Bradley, which had been influenced by the German idealism of Hegel and others. Moore saw philosophy as the analysis

of concepts. Analytical philosophy grew out of the approach and concerns of Moore and Russell, combined with the logical positivist movement and certain elements of pragmatism in America. However, the term *analytical philosophy* now refers to many philosophers who do not subscribe to the exact conceptions of philosophy held by the analysts, logical positivists, or pragmatists.

Indeed, there are really no precise conceptual or geographic boundaries separating analytical and continental philosophy. There are many analytical philosophers on the continent of Europe and many who identify themselves with continental philosophy in English-speaking countries. And there are important subgroups within each group. Within analytical philosophy, some philosophers take logic as their model, and others emphasize ordinary language. Both analytical and continental philosophers draw inspiration from the great philosophers of history, from the pre-Socratics, Plato, and Aristotle to Hume, Kant, Hegel, Marx, Mill, Frege, Husserl, James, and Dewey.

antecedent *See* **conditionals**.

anthropomorphism Anthropomorphism is the practice of ascribing to nonhuman beings properties and characteristics of human beings. In philosophy of religion, there is a general concern whether and to what extent our thought about God is problematically *anthropomorphic*. For instance, it is commonly held that depictions of God as having a body are mere anthropomorphisms. But what about depictions of God as becoming angry or frustrated? Whether such depictions ought to be taken literally or treated as merely anthropomorphic is a matter of some controversy.

a posteriori and **a priori** A posteriori knowledge is based on experience, on observation of how things are in the world of changing things. A priori knowledge is based on reasoning rather than observation.

Your knowledge that it is raining outside is a posteriori knowledge. It is based on your experience, your observation of what is happening outside. One couldn't figure out whether it was raining or not by just reasoning about it. Now consider the following questions: (1) Are there any married bachelors? (2) What is the sum of 38 and 27? After a bit of thought, you should conclude that there are no married bachelors, and 38 + 27 = 65. You know these things a priori. You didn't need to make any observations about what was happening. You just needed to reason.

One important question about a priori truths is whether they are all analytic, or whether there are some synthetic a priori truths. The philosopher Kant thought that (1) above was a priori and analytic, whereas (2) was a priori and synthetic. *See* **analytic** and **synthetic** for further discussion.

An *a priori argument* is one that uses no empirical premises. An *a priori concept* is one that is innate or could be acquired just by using one's reason.

See also **analytic** and **synthetic; contingent** and **necessary; matters of fact** and **relations of ideas**.

a priori *See* **a posteriori** and **a priori**.

argument from analogy *See* **analogy**.

asymmetric attitudes To say that our attitudes toward two things are asymmetrical is simply to say that they are different. The asymmetric attitudes arise as a particular puzzle when the things toward which we hold asymmetric attitudes are apparently the same in relevant ways.

A prime example of this is the asymmetric attitudes we hold toward the time before birth and the time after death. Both are long periods of time in which we do not exist. It would seem, then, that our attitudes toward them should be symmetric. Intuitively, though, it seems reasonable to regard death as a bad thing, and unreasonable to regard the period of prenatal nonexistence as comparably bad. That is, we hold asymmetric attitudes toward death and prenatal nonexistence.

atheism Atheism is disbelief in a god. Strictly speaking, atheists are those who don't believe in any god or gods, but often writers will describe someone who does not believe in the god or gods in which they believe as an atheist.

basic structure In "A Theory of Justice," John Rawls says that his theory of justice concerns a society's major social, political, and economic institutions. His examples include the existence of competitive markets, basic political liberties, and the structure of the family. Rawls calls this the *basic structure* of a society. G. A. Cohen, in "Where the Action Is," argues that there is an important ambiguity in this idea.

behaviorism Behaviorism is used in somewhat different senses in psychology and philosophy. In psychology, behaviorism was a twentieth-century movement that maintained that the study of behavior is the best or even the only way to study mental phenomena scientifically. It is opposed to the introspective methods for the study of the mind emphasized in much psychology of the nineteenth century. This is *methodological behaviorism*. A methodological behaviorist might even believe in an immaterial mind (*see* **dualism**), but maintain nevertheless that there was no scientific way to study the immaterial mind except through its effects on observable, bodily behavior.

In philosophy, however, behaviorism opposes dualism; the term means some form of the view that the mind is nothing above and beyond behavior. *Logical behaviorists* maintain that talk about the mind can be reduced without remainder to talk about behavior. *Criteriological behaviorists* maintain that mental terms may not be completely reducible to behavioral terms, but they can only be given meaning through ties to behavioral criteria.

Behaviorism is closely related to *functionalism*.

British Empiricism *See* **empiricism**.

Cartesian dualism *See* **dualism**.

category-mistake According to Gilbert Ryle (see "Descartes's Myth") a *category-mistake* is committed (roughly) when one thinks of or represents things of a certain kind as being or belonging to a category or logical type to which they do not belong. Ryle's examples illustrate this sort of mistake nicely. Suppose someone visits your university, and you take him on a tour of the campus, showing him the student commons, the library, and so on. At the end of the tour he says, "This is all very well, but what I'd like to see is the *university*." Your friend would here be making a category-mistake. He apparently thinks that the university is yet another building in addition to the library, and so on, whereas in reality it is more like the sum total of such buildings and their relationships.

causal determinism *See* **determinism.**

cause and **effect** We think of the world as more than just things happening; the things that happen are connected to one another, and what happens later depends on what happens earlier. We suppose that some things cause others, their effects. The notion of cause connects with other important notions, such as responsibility. We blame people for the harm they cause, not for things that just happened when they were in the vicinity. We assume that there is a cause when things go wrong—when airliners crash, or the climate changes, or the electricity goes off—and we search for an explanation that discloses the cause or causes.

Causation is intuitively a relation of dependence between events. The event that is caused, the effect, depends for its occurrence on the cause. It wouldn't have happened without it. The occurrence of the cause explains the effect. Once we see that the cause happened, we understand why the effect did.

Most philosophers agree that causal connections are *contingent* rather than *necessary*. Suppose the blowout caused the accident. Still, it was possible for the blowout to happen and the accident not to occur. After all, the world might have worked in such a way that a blowout was followed not by an accident but by the car's gradually slowing to a halt.

On one common view, however, causation implies laws of nature in the sense that causal connections are instances of such laws. So causal relations are "relatively necessary": they are contingent only insofar as the laws of nature are contingent. It may be a contingent fact that the laws of physics are what they are. But, on this view, *given* the contingent fact that the laws of nature are as they are, the accident had to happen once the blowout did.

Hume holds such a view. He claims that, at least as far as humans can comprehend things, *A* causing *B* amounts, at bottom, to the fact that events like *A* are always followed by events like *B*. Causation requires universal succession. (Such universal succession is sometimes called *customary* or *constant conjunction*.) At first this doesn't seem very plausible. After all, many blowouts don't lead to accidents. It seems more plausible if we assume that Hume is thinking of the total cause, the blowout plus all the other relevant factors that in this case led to the accident, including the design of the car and the skill of the driver. Taken this way, the universal succession analysis implies that if the blowout caused the accident, then if all of these relevant conditions were duplicated in another case, and there is a blowout, an accident would happen. If not, and if the blowout really caused the accident in the original case, there must be some relevant difference. This version of universal succession seems more plausible, but perhaps not totally convincing.

Even if we grant the Humean relevant difference principle, there are difficulties with the idea that causation simply is universal succession. Consider what it means about the case of the blowout causing the accident. What is the real connection, according to the universal succession theory, between this particular blowout and this particular accident? It just seems to be that the blowout occurred, and then the accident occurred. That's all there really is to causation, as it pertains to these two events. All the rest that is required, on the universal succession analysis, has to do with other events—events *like* the blowout and events *like* the accident. It seems that there is more to causation than this.

Hume offers a candidate for this additional something involved in causation. He says it is really just a certain feeling we have when we have experienced many cases of events of one type being followed by events of another. When we have had this experience, our minds pass from the perception of an event of the first kind to an expectation of one of the second kind. Hume challenges us, if we are not satisfied that causation is just universal succession together with the feeling of the mind passing from perception to expectation, to identify what else there is.

commodification We treat some goods as subject to norms of a market: They can be bought and sold for prices that are subject to pressures of supply and demand. This is how we see, for example, cars and computers: We treat cars and computers as *commodities*. Are there moral limits to such commodification—moral limits to the appropriate scope of markets? If so, what are they and what is their justification? These are questions Debra Satz explores in her "Markets in Women's Reproductive Labor."

compatibilism and **incompatibilism** In philosophy, the term *compatibilism* usually refers to a position in the issue of *freedom* versus *determinism*. Intuitively it seems that freedom excludes determinism, and vice versa. But this has been denied by some philosophers; they claim that acts can be *both* free *and* determined, usually adding that the traditional problem is the product of confused thinking abetted by too little attention to the meaning of words.

Hume held this position. In Section VIII of his *An Inquiry Concerning Human Understanding,* he describes his project as one of "reconciling" *liberty* with *necessity*, these being his terms for freedom and determinism. Hume said that liberty consists of acting according to the determinations of your will; that is, doing as you decide to do. A free act is not one that is *uncaused,* but one that is caused by the wants, desires, and decisions of the person who performs it. Hence an act can be both free and an instance of a universal causal principle. On this conception, an unfree act is one that one must do *in spite of* one's own desires and decisions, rather than because of them.

Some compatibilists go further and maintain that freedom requires determinism. The idea is that for our own will to determine what we do, our decisions must cause our actions, and causation in turn requires determinism.

Given this distinction, the views of most philosophers on the issue of freedom and determinism can be located among the following possible positions:

1. Incompatibilism: Freedom and determinism are incompatible. This view leaves open two main theoretical options:
   a. *Libertarianism:* There are some free acts, so determinism is false.
   b. *Hard determinism:* Determinism is true, so there are no free acts.
2. Compatibilism: Freedom and determinism are compatible. This view is typically part of a view called *soft determinism,* according to which there are free acts and determinism is also true. This view in turn comes in two varieties:
   a. There are free acts. Determinism is as a matter of fact true, but there would be free acts whether or not determinism were true.
   b. There are free acts. Determinism is true and its truth is required for freedom.
3. Freedom is incoherent: Freedom both requires and is incompatible with determinism, and hence makes no sense.

Some philosophers distinguish between freedom of action and free will. Free will involves more than having one's actions determined by one's decisions and desires. It involves having control over those desires and decisions themselves. Someone might have freedom, as the compatibilist understands it, without having free will. For example, a person addicted to smoking might be free in the sense that whether or not he or she smokes on a given occasion is determined by personal desire. But what if this person doesn't want to have or be controlled by that desire? Does he or she have the power to get rid of the desire, or weaken its hold? This is the question of free will. The issue of whether free will is compatible or incompatible with determinism can then be raised.

conclusion *See* **deductive argument.**

conditionals A conditional is a kind of statement that is made out of two others. The normal form of the statements is "If *P* then *Q*." *P* is the *antecedent* and *Q* the *consequent*. "If *P*, *Q*" and "*Q,* if *P*" are stylistic variations of "If *P* then *Q*."

Conditionals can be in various tenses and in the indicative or subjunctive:

Indicative: *If Susan comes to the party, then Michael brings the salad. If Susan came to the party, then Michael brought the salad. If Susan will come to the party, Michael will bring the salad.*

Subjunctive: *If Susan were to come to the party, Michael would bring the salad. If Susan had come to the party, Michael would have brought the salad.*

A *counterfactual* conditional, one in which the antecedent is false, will usually be in the subjunctive if the speaker realizes that the antecedent is false.

One thing seems quite clear about conditionals: *If the antecedent is true, and the consequent false, then the conditional as a whole is false*. If Susan comes to the party, and Michael doesn't bring the salad, then all of the examples preceding are false. This is the basis for two clearly valid rules of inference:

Modus ponens: From *If P, then Q* and *P*, infer *Q*.

Modus tollens: From *If P*, then *Q* and *not-Q,* infer *not-P*.

In symbolic logic a defined symbol (often "R") is called the conditional. The conditions under which conditional statements that involve this symbol are true are stipulated by logicians as follows:

1. Antecedent true, consequent true, conditional true
2. Antecedent true, consequent false, conditional false
3. Antecedent false, consequent true, conditional true
4. Antecedent false, consequent false, conditional true

This defined symbol, then, agrees with the ordinary language conditional on the clear case, number 2, the case that is crucial for the validity of modus ponens and modus tollens. But what about the other cases? Suppose Susan doesn't come to the party, but Michael brings that salad (antecedent false, consequent true). The symbolic logic statement,

Susan comes to the party ⟶ Michael brings the salad

is true in this case, because of part 3 of the definition. It isn't so clear that the ordinary language conditionals are true. Suppose that Michael says, "I brought the salad because Susan couldn't make it. If she had come, she would have brought it." Are any or all of the ordinary language conditionals listed true in this case? False? What of Michael's second sentence, which is also a conditional?

See **necessary** and **sufficient conditions.**

consequent *See* **conditionals.**

consequentialism Consequentialism is a view about what makes it right or wrong to do something. It maintains that the rightness of an action is determined by the goodness or badness of relevant consequences. *Utilitarianism* is a consequentialist theory that holds that what makes consequences better or worse is, at bottom, the welfare or happiness of sentient beings. A *deontological* ethics rejects consequentialism and holds that the rightness of action depends at least in part on things other than the goodness of relevant consequences. For example, someone who rejects consequentialism might hold that the principle under which an act is done determines whether it is right or wrong. Kant held a version of this view; *see* the Introduction to Part V.

constitutive luck Constitutive luck is one of the four types of *moral luck* identified by Thomas Nagel. One is subject to constitutive luck insofar as the sort of person that one is (one's character, personality, etc.) is beyond one's control and yet the person is still seen as an apt candidate for praise and blame. *See also* moral luck.

continental philosophy *See* **analytical philosophy.**

continental rationalism *See* **rationalism.**

contingent and **necessary** Some things are facts, but would not have been facts if things had happened differently. These are contingent facts. Consider, for example, the fact that Columbus reached America in 1492. Things could have turned out differently. If he had gotten a later start, he might not have reached America until 1493. So the fact that he arrived in 1492 is contingent. Necessary facts are those that could not have failed to be facts. The year 1492 would have occurred before the year 1493 no matter how long it took Columbus to get his act together. It is a necessary fact. Mathematical facts are a particularly clear example of necessary facts. The fact that 2 + 2 = 4 doesn't depend on one thing happening rather than another.

Philosophers sometimes use the idea of a possible world to explain this distinction. Necessary truths are true in every possible world. Contingent truths are true in the actual world but false in some other possible worlds. Necessary falsehoods are false in the actual world and false in every other possible world, too. If one thinks of the distinction this way, one must be careful to distinguish between the truth of a sentence and the truth of what it says. It is easy to imagine a possible world in which the sentence "2 + 2 = 4" is false. Just imagine that the numeral "2" stood for the number three, but "4" still stands for four. But imagining the sentence to have a meaning that makes it false is not the same as imagining what it says, given its actual meaning, to be false. It is the latter that is important when we ask if it is necessary or contingent that 2 + 2 = 4.

The distinction between the necessary and contingent is a *metaphysical* distinction. It has to do with facts or propositions and truth. It is closely related to the epistemological distinction between *a priori* and *a posteriori* and the distinction between *analytic* and *synthetic* statements. These three similar distinctions shouldn't be confused. Some philosophers claim that they are *coextensional*. But they are not *cointensional*, so this is a substantive philosophical claim. For example, some philosophers claim that there are mathematical facts that have nothing to do with the meanings of words, and may never be known at all, and are hence not knowable a priori, but are still necessary.

corroboration *See* **deductivism.**

cosmogony *See* **cosmos.**

cosmological argument *See* **cosmos.**

cosmology *See* **cosmos.**

cosmos The cosmos is the universe considered as an integrated orderly system. Sometimes the cosmos is the orderly part of a larger whole, the other part being *chaos*. Any account of the origin of the universe as a whole, whether based on myth, religion, philosophy, or science is a *cosmogony*. An account of the nature and origin of the universe that is systematic is a *cosmology*. This term is used for the particular branch of physics that considers this question, and also for inquiries of a more philosophical nature. Cosmological arguments for the existence of God begin with very general facts about the known universe, such as causation, movement, and contingency, and then argue that God must exist, as first cause, or unmoved mover, or necessary being, to account for these facts. The first two ways of proving the existence of God listed by St. Thomas Aquinas are cosmological arguments.

customary/constant conjunction *See* **cause** and **effect.**

death The end of life; the cessation of the biological functioning of the body. All known living things eventually die.

deductive argument Arguments have premises and a conclusion. The truth of the premises should provide grounds for the truth of the conclusion, so that the argument gives one who believes the premises a good reason for believing the conclusion.

In a valid argument, the truth of the premises entails the truth of the conclusion. This means that it is impossible for the premises to be true and the conclusion false. A valid argument may have a false conclusion because the validity of an argument does not imply the truth of the premises. If the premises of a valid argument are true, then the argument is sound. Clearly the conclusion of any sound argument will be true.

An argument that aims at validity is *deductive,* or *demonstrative*. Such arguments are *nonampliative* in the following sense: The conclusion does not contain anything not already found in the premises. In other words, the conclusion is simply "drawn out of" the premises. They are thus *necessarily truth preserving:* If the premises are true, the conclusion (because, logically, it says no more than the premises) must also be true. *Deductive logic* provides rules of inference that exhibit valid patterns of reasoning.

An argument can provide those who believe its premises good reason for accepting its conclusion even if it is not valid. Among arguments that are not valid, we can distinguish between those that are strong and weak. A *strong* nondemonstrative or nondeductive argument makes the truth of the conclusion very probable. *Analogical arguments,* for example, are nondeductive but can be quite strong.

Inductive arguments involve generalizing from instances. Having noticed that a certain radio station plays rock music on a number of occasions, you may infer that it always does so, or that it is at least very likely that it will do so next time you tune in. This process is called *induction by enumeration*. Inductive arguments are *ampliative* in character: The conclusion of these arguments "goes beyond" what is contained in the premises. Such inferences are not valid, but it seems that they can be quite strong and in fact the whole idea of using past experiences to guide our conduct depends on them. *See* **induction, problem of.**

deductivism Deductivism is the thesis that science should focus solely on *deductive arguments* rather than *inductive arguments* because there is no good response to the *problem of induction*. Deductivism is most closely associated with the twentieth-century philosopher of sc\ience Karl Popper. Popper advocated the *hypothetico-deductive model* of science, which held that science should make *falsifiable* hypotheses about the world and then test them. Hypotheses that are not falsified despite severe tests are *corroborated* (although not *confirmed*). According to this model of science, the difference between scientific and (say) *metaphysical* claims is that scientific claims are *falsifiable*. For discussion, see Salmon, "The Problem of Induction."

demonstrative/nondemonstrative inference *See* **deductive argument.**

deontological ethics *See* **consequentialism**.

deontology Deontology is the study of ethical concepts having to do with permissibility and impermissibility, e.g., rights, duties, and obligations. *See* deontological ethics.

determinism Determinism is the doctrine that every event, including every intentional action of a human being, is determined by prior causes. This is usually thought to imply that there are universal, nonstatistical laws of nature covering every aspect of everything that happens. *See* **cause** and **effect.** Given the state of the universe at any time, these laws determine everything else that will ever happen. Some philosophers oppose determinism, because they think that the ultimate laws of nature are statistical. Others oppose it because they believe there are free actions, and that no actions can be both free and determined. *See* **freedom, compatibilism** and **incompatibilism**, **fatalism.**

difference principle A central idea of John Rawls's theory of justice, referred to as *the difference principle,* is that inequalities in the distribution of relevant goods are just if and only if these inequalities are needed to improve the plight of everyone, in particular of those who are the worst off. (*See* Rawls's second principle of justice, "A Theory of Justice," p. 578, and G. A. Cohen's formulation, "Where the Action Is," p. 599.)

distributive justice *See* **justice**.

double effect, doctrine of An act typically has both intended and unintended effects. For example, swatting a fly may have the intended effect of killing a fly, and the unintended effects of making a noise and waking up your brother. The latter effect may be unintended even though it is foreseen. You knew that swatting the fly would or at least might wake your brother. That's not why you were doing it; you were doing it to get rid of the fly. Perhaps you didn't much care whether or not your brother slept. Perhaps you hated to wake him, but it was very important to you to swat the fly. In these cases, swatting the fly is the intended effect of your act, and waking your brother is merely foreseen.

According to the doctrine (or principle) of double effect, the moral status of intended effects differs from those that are merely foreseen. This principle is sometimes appealed to as a part of a *deontological* moral theory. According to this principle, it might be wrong to swat the fly with the intention of waking up your brother, but permissible to swat the fly with the intention of killing it, knowing it would wake up your brother. A more interesting example is abortion. Some people maintain that it is wrong to act with the intention of aborting a fetus, but that nevertheless certain operations may be permissible, even though abortion of the fetus is a foreseeable result, so long as they are done for some other purpose, such as preventing the injury to a mother that continued pregnancy might involve. Some philosophers maintain the distinction makes no sense. Others believe there is a coherent distinction between intended and merely expected consequences, but doubt that it has the moral significance it is given by the doctrine of double effect.

doxastic/doxically Doxastic states are states having to do with beliefs. If I have the belief that *p,* I am in the doxastic state of believing that *p*. A consideration is *doxically* relevant if it is relevant to one's beliefs.

dualism The term *dualism* has a number of uses in philosophy, but perhaps the most common is to describe positions on the mind-body problem that hold that the mind cannot be identified with the body or part of the body, or that mental properties are not physical properties.

The form of dualism Descartes advocated is called *Cartesian dualism* or *interactive dualism*. The mind is that which is responsible for mental states of all kinds, including sensation, perception, thought, emotion, deliberation, decision, and intentional action. Some philosophers maintain that this role is played by the brain, but Descartes argued that this could not be so. His view was that the mind was a separate thing, or substance, that causally interacted with the brain,

and through it with the rest of the body and the rest of the world. Sensation and perception involve states of the world affecting states of sense organs, which in turn affect the brain, which causes the mind to be in certain states. Action involves states of mind affecting the brain, which in turn affects the body, which may interact with other things in the world.

Other forms of dualism include *epiphenomenalism, parallelism,* and *property dualism*. The epiphenomenalist holds that the body affects the mind, but not vice versa. The mind only appears to affect the body, because the apparent mental causes of bodily changes (like the decision to lift my arm) coincide with the true bodily causes (some change in my brain). Parallelists hold that mind and body are two substances that do not interact at all. Property dualism maintains that the mind can be identified with the brain (or with the body as a whole), but mental properties cannot be reduced to physical ones. On this view, it is my brain that is responsible for sensation, perception, and other mental phenomena. But the fact that my brain is thinking a certain thought, for example, is an additional fact about it, one that cannot be reduced to any of its physical properties.

effect *See* **cause** and **effect**.

efficient causation Efficient causation is one of the four types of causation that Aristotle distinguished. Of these four types, efficient causation is the sort of causation that best fits contemporary usage of the word *causation*. The efficient cause of an event is (roughly) the agent or event that brings the effect about. If a ball breaks a window, the efficient cause of this event is roughly the ball's hitting the window. If Jones raises his hand, the efficient cause of this event is, according to some, Jones himself. When (as in this last example) an agent is supposed to be the efficient cause of some event, this is a (putative) instance of *agent-causation* (*see* **agent-causation**). For another type of causation distinguished by Aristotle, *see* **final causation**.

egoism *Egoism* has many usages in philosophical discourse. On one usage, it refers to the view that human beings *ought* to pursue their own self-interest. On another usage, it refers simply to the view that human beings *do* (perhaps exclusively) pursue their own self-interest.

eliminative materialism *See* **materialism** and **physicalism**.

embodiment An embodied thing has taken physical, tangible form. That which has been embodied has, literally, been put into a body. Embodiment can mean either the process of taking form in this way, or the state of having been embodied. Philosophers are most concerned with the embodiment of *consciousness*, that is, with the way in which thinking, conscious things inhabit physical forms, and how a conscious being relates to its embodiment.

empiricism Empiricism is an epistemological position that emphasizes the importance of experience and denies or is very skeptical of claims to a priori knowledge or concepts. The empirical tradition in seventeenth-, eighteenth-, and nineteenth-century philosophy was centered in Britain, and Bacon, Locke, Berkeley, Hume, and Mill are often referred to as *British Empiricists*. *See also* **rationalism**.

endurance *See* **perdurance** and **endurance**.

en-soi According to the existentialist philosopher Jean-Paul Sartre, the world is divided between two sorts of beings: beings-in-themselves (en-soi) and beings-for-themselves (pour-soi). Beings-in-themselves are inanimate things like rocks, whereas beings-for-themselves are beings that exhibit feeling and agency.

entails *See* **deductive argument**.

epiphenomenalism *See* **dualism**.

epistemology Epistemology is the theory of knowledge, the inquiry into its possibility, nature, and structure.

ergon This is the Greek word for *function,* which is a concept that plays an important role in Aristotle's moral theory. For Aristotle, the *ergon* of an object is more than just what we may use that

object for—rather, it is whatever activity makes that object the sort of thing that it is. For example, although we can use a knife to hammer a nail into a wall if we wish, this is not the knife's *ergon*. Rather, a knife's *ergon* is to cut. For discussion, see Thomas Nagel's "Aristotle on *Eudaimonia*."

error theory Some philosophical views have the implication that we regularly but unknowingly fall into error when we make claims about some particular domain of inquiry. For instance, it is a consequence of J. L. Mackie's view in "The Subjectivity of Values" that although we regularly think that at least some of our moral judgments are true, they are in fact systematically false. Mackie thus provides an error theory about moral judgments. As Mackie points out, such theories require strong support because of the challenge they pose to common sense.

essential *See* **accidental** and **essential**.

eternalism and **presentism** Of course dinosaurs don't exist *right now,* but do they just plain exist? Again, of course my great-great-grandson doesn't exist *at this moment,* but does he exist nevertheless? According to eternalism, which is a view about past and future objects, the answer to these questions is "Yes." Just as The Eiffel Tower exists even though it doesn't exist *over here,* so dinosaurs exist even though they don't exist *right now*. This view is often contrasted with a view called *presentism,* according to which the only objects that exist are those that exist *right now*. According to presentism, when dinosaurs went extinct, they didn't just cease to exist *from then on*—rather, they ceased to exist altogether.

eudaimonia Eudaimonia—sometimes translated "happiness" or "flourishing"—is a central concept in Aristotle's ethics. *See* "Aristotelian Ethics" in Part V.

Euthyphro dilemma The original Euthyphro dilemma is found in one of Plato's dialogues in which Socrates is questioning an Athenian named Euthyphro about the nature of piety. When Euthyphro attempts to explain piety by saying that pious actions are those actions that the gods love, Socrates responds by asking whether the gods love pious actions because they are pious or whether pious actions are pious because the gods love them. This is a dilemma because either response is to some degree unsatisfactory. If Euthyphro says that the gods love pious actions because they are pious, then this seems to imply that there is something out of the control of the gods—namely what actions count as pious. But, on the other hand, if we say that pious actions are pious because the gods love them, then presumably the gods could have loved morally despicable actions, in which case it would follow that some morally despicable actions would be pious.

More recently, the term *Euthyphro dilemma* has come to refer to the structurally parallel problem about moral rightness and wrongness, rather than piety. For example, are wrong actions wrong because God forbids them or does God forbid them because they are wrong? In general, the dilemma demands an order of explanation—is an action's being wrong explained by its being forbidden, or is God's act of forbidding the action explained by the action's being wrong?—and so any order of explanation dilemma, whether about God or not, may be considered a version of the Euthyphro dilemma.

event-causation *See* **agent-causation.**

evil, problem of Many philosophers have thought that the existence of evil poses a problem for those who believe that there is a perfect God. A perfect God, it seems, would be able to do anything (*omnipotence*), would know everything (*omniscience*), and would have all the moral virtues, such as benevolence. If such a God created the world, why is there any evil? Does God not care if we suffer? Then God is not benevolent. Is this world the best God could make? Then God is not omnipotent. Or perhaps God wanted to do better, and had the power, but didn't quite know what to do. Then God is not ominscient. A perfect God would have made the best of all possible worlds. So, the argument goes, the existence of our imperfect world, full

of sin and suffering, shows that God does not exist, or is not perfect.

The problem of evil is pressed by Philo, a main character in Hume's *Dialogues on Natural Religion*. Both Philo and his main adversary, Cleanthes, give up the idea that God is perfect. Philo concludes that while the world was probably created by an intelligent being or beings, there is no reason to attribute benevolence to that being or those beings. Cleanthes allows that God may be only finitely powerful.

Other philosophers have thought, however, that our problems with evil simply show how difficult it is for finite beings to grasp the plan of an infinitely perfect being. This is, contrary to first impressions, the best of all possible worlds. This is Leibniz's position in "God, Evil and the Best of All Possible Worlds."

experiential blank The complete absence of experience. This is to be distinguished from the sort of 'experience of nothing' that results from sensory deprivation. An experiential blank is a complete absence of consciousness and awareness. It is typically assumed (in secular discussions) that both the time before our birth (or, perhaps better, conception) and the time after our death are experiential blanks.

extension (alternate) Things that occupy space have *extension*. Some things that (apparently) exist lack extension including numbers, properties, and—according to *dualism*—minds or souls. This usage of *extension* should be distinguished from the usage that concerns the application of predicates; *see* **extension** and **intension.**

extension and **intension** Consider a *predicate* like "human being." It applies to or is true of a number of individuals, those who are human beings. The set of these individuals is the extension of the predicate. The members of this set have the property of being a human being in common. This property (or, for some philosophers, the concept of this property) is the intension of the predicate.

Terms that have the same extension are co-*extensional*, terms that have the same intension are *co-intensional*. It seems that terms can be co-extensional without being co-intensional. Russell's example is "human being" and "featherless biped that is not a plucked chicken." These terms are not *co-intensional,* as the property of being a human being is not the same as the property of being a featherless biped that is not a plucked chicken. But they are *co-extensional*. If you set aside the plucked chickens, humans are the only bipeds without feathers. (Probably their extensions are not *quite* the same; after all there are plucked turkeys, too, but Russell thought the example was close enough to being correct to make the point.)

The term *extension* is often used in an extended sense in which names and sentences have extensions as well as terms or predicates. (The terminology is due to Rudolf Carnap, and the idea it incorporates goes back to Gottlob Frege.) The extension of a name is the thing it names, the extension of a sentence is its truth value, true or false. This brings out the systematic connection among name, predicate, and sentence. The sentence "Fido is barking" will have the extension True (i.e., be true), just in case the extension of "Fido" (i.e., Fido) is a member of the extension of "is barking." That is, the extension of the parts (the name "Fido" and the predicate "is barking") determines the extension of the whole sentence. Sentences like this, their truth-value being determined by the extension of their parts, are *extensional*.

If a sentence is extensional, substitution of a name in it for another co-extensional name (or a predicate for another co-extensional predicate) won't affect the truth value. Suppose Fido is also called "Bad-breath." Then the substitution of "Bad-breath" for "Fido" will preserve the truth value of our sentence. If "Fido is barking" is true, so too will be "Bad-breath is barking."

Not all sentences are extensional. Consider the true sentence "Bad-breath is so called because of his smell." If we substitute the co-extensional name "Fido" for "Bad-breath" the result is "Fido is so called because of his smell." This sentence isn't true. So our original sentence, "Bad-breath is so called because of his smell," isn't extensional, but *nonextensional*.

We can generalize and say that any expression is extensional if its extension is determined by

the extensions of its parts. Consider the predicate "is portrayed as a human being." Suppose this is true of Donald Duck, because he is portrayed in cartoons as having so many human characteristics. If we substitute "featherless biped" for "human being" we get the predicate "is portrayed as a featherless biped." This doesn't seem to be true of Donald, as he is always portrayed as a feathered biped.

In these examples, it seems possible to pick out the expressions that lead to the nonextensionality. In the first example it is "so called," in the second it is "portrayed as." Expressions like these that give rise to nonextensionality are often called *nonextensional contexts*.

Some concepts that are very important in philosophy seem to generate nonextensional sentences. Consider "Harold believes that Cicero was a great Roman." Because "Tully" is another name for Cicero, if this sentence is extensional, it seems we should be able to substitute "Tully" for "Cicero" without changing the truth value of the whole. But it seems that if Harold has never heard Cicero called "Tully," "Harold believes that Tully was a great Roman" would *not* be true.

The term *intensional* is used in three ways, one strict and comparatively rare, one loose and very common, and one incorrect. Strictly speaking, an expression is intensional if its intension is determined by the intensions of its parts. This is the way Carnap used the term. It is common to use it loosely, however, simply to mean "nonextensional," so that an "intensional context" means a form of words, like "so called" and "portrayed as" and "believes," that leads to nonextensional predicates and sentences. *Intensional* is often confused with *intentional* in the broad sense that is sometimes taken to be the mark of the mental. This is understandable, because many words that describe intentional phenomena, such as *believes,* seem to be intensional, in the loose sense.

In *possible worlds semantics,* names, predicates, and sentences are said to have extensions *at* possible worlds—the set of things that the predicate applies to in the world. Sentences are also said to have extensions at worlds: their truth values in the worlds. The intension of a predicate is a function from worlds to extensions, and the intension of a sentence is a function from worlds to truth values.

extensional *See* **extension**.

extrinsic An extrinsic property is one that an object has partly in virtue of its relations to other things and their properties. A thing could lose such a property without really changing at all. For example, Omaha has the property of being the largest city in Nebraska. It could lose this property by virtue of Grand Island growing a great deal. Omaha wouldn't have to lose population to lose this property, or change in any other way. Being the largest city in Nebraska is thus an extrinsic property of Omaha. An *intrinsic* property, by contrast, is one that an object has because of the way it is in itself, independently of its relations to other things and their properties.

The distinction is often useful, because a property that we might have thought to be intrinsic turns out to be extrinsic on closer examination. It is very difficult, however, to give a really clear and precise explanation, or unchallengeable list, of intrinsic properties of ordinary, spatiotemporally extended objects.

falsifiability *See* **deductivism.**

fatalism Fatalism is the doctrine that certain events are fated to happen, no matter what. This might mean that an event is fated to take place at a specific time, or that someone is going to do some deed, no matter what anyone does to try to prevent it. Fatalism differs from *determinism*. One way they differ is that a fatalistic view about the occurrence of a certain event does not depend on the laws of nature determining only a single course of events. There may be many possible futures that differ in many ways, but they all will include the fated event. Oedipus, for example, was (allegedly) fated to marry his mother and kill his father. This didn't mean that there was only one course of action open to him after hearing the prophecy, but that no matter which course he took, he would eventually end up doing that which he wanted most to avoid. A second way they differ is that an event may be determined by prior causes even though it was not fated to occur;

for among those prior causes may be the decisions and efforts of human agents. So determinism does not entail fatalism about all events.

feminism Feminism is an intellectual, social, and political movement. The movement is very diverse, but one strand that runs through all varieties is the conviction that important intellectual, social, and political structures have been based on the assumption, sometimes implicit, sometimes quite explicit, that being fully human means being male. Reexamination of these structures from a perspective that appreciates the interests, values, styles, ideas, roles, methods, and emotions of women as well as men can lead to fruitful and in some cases radical reform.

final causation According to the Aristotelian doctrine of final causes, the final cause (or *telos)* of a thing's existence is the purpose or end for which it exists. For instance, the final cause of a chair is sitting, and so on. *Teleology* is the branch of knowledge having to do with purposes and design. A fact is *teleological* if it is of or related to teleology or final causes. Some arguments for the existence of God are teleological in nature; such arguments appeal to the apparent design or purpose of human beings or the universe to argue for the existence of a cosmic designer.

first cause argument The first cause argument purports to prove the existence of God as the first cause. In the world we know, everything has a cause and nothing causes itself. The series of causes cannot go back to infinity, so there must be a first cause, and this is God. St. Thomas Aquinas's second way of proving the existence of God is a version of the first cause argument. Philosophers have challenged each step of the argument.

first-order desires *See* **second-order volitions.**

formal The formal properties of representations are distinguished from their *content* properties. "All cows are animals" and "all houses are buildings" have different contents, but the same form: *All Fs are Gs. Formal logic* seeks to classify inferences in terms of their formal properties. Where *P* and *Q* are sentences, any inference of the following form, known as *modus ponens,* is valid, no matter what the content is.

If P then Q
P
Therefore, Q.

Some philosophers have argued that philosophical confusion can sometimes be avoided by putting claims into the *formal mode* rather than the *material mode*. To put a claim in the formal mode is to express it, as nearly as possible, as a claim about words or other symbols, rather than about the things the words purport to stand for. "Santa Claus doesn't exist" is a claim in the material mode, which may be confused or confusing because it looks as if we are saying something about a thing, Santa Claus, who isn't really there to say anything about. Better to say "'Santa Claus' doesn't refer to anything."

formal logic *See* **formal.**

formal mode *See* **formal.**

freedom In ordinary conversation we call people free who aren't prevented from doing what they want to do and conducting their life as they see fit. In politics and political philosophy, freedom usually means having civil or political liberty, having certain basic rights or freedoms, such as those codified in the American Bill of Rights, the Rights of Man, or the Charter of the United Nations.

In the realm of metaphysics and the philosophy of mind, the term *freedom* refers to a very basic feature of decisions or actions. When we perform an ordinary act, like drinking a cup of coffee, or going to a movie, or helping a friend, we have a feeling that our action results from our own decision and *that we could have done otherwise*. It seems that only when this is the case do we take full responsibility (blame or credit) for our actions. A person might be free in this sense, although not enjoying freedom in the sense of political liberties. A writer under house arrest, and prevented from publishing, would not enjoy basic civil liberties. But many of her actions would still be free in this metaphysical sense. She has coffee in the morning; she could have had tea.

Perhaps she writes her essays even though she can't publish them. This is a free act, in that she could have gardened or stayed in bed instead; if she had chosen to do those things, no one would have forced her to write.

One fundamental question about freedom in this sense concerns its relation to *determinism*. If determinism is true, are any of our actions *really* free, or is freedom simply an illusion? This debate often turns on the exact definition of freedom. *Compatibilists* are likely to think of freedom as being able to act in accord with one's desires and decisions, even if those desires and decisions are themselves the influences of more remote causes, outside the agent. This is compatible with determinism, in that one's own desires and decisions might be the causes of one's actions, even though those desires and decisions were themselves caused by other things, and lie at the end of a chain of causes and effects that goes back to the time before the agent was born. An *incompatibilist* typically thinks of a free decision or act as one that is not caused by anything else, or is caused by the agent, independent of external causes.

The term *free will* is sometimes used to contrast with *freedom of action*. One's *will* in this sense is one's decision, choice, or dominating desire. Even if one is free to follow one's strongest desire, and hence has freedom of action in the compatibilist sense, does one have any control over those desires and choices themselves? Can one influence the strength of one's desires, or are they determined by external influences? One might be a compatibilist with respect to free action and determinism, but an incompatibilist with respect to free will and determinism.

In theological contexts, the question of free will is whether humans can have any choice if there is a god who has foreknowledge of what they will do.

free will *See* **freedom.**

functionalism The function of a thing is its operation within a system. It is the role the thing has, when the system is operating properly. For example, the function of a carburetor is to supply an atomized and vaporized mixture of fuel and air to the intake manifold of an internal combustion engine. One can contrast the function of a thing with its structure and the material from which it is made. The structure of a carburetor differs from that of a fuel injection system, although both have the same function and are made of the same types of materials.

Functionalism in the philosophy of mind is the view that mental states are real states definable by their functions, specifically by their causal role with respect to stimuli, other mental states, and behavior. Functionalism can be contrasted with Cartesian dualism and behaviorism**.** Functionalism agrees with Cartesian dualism in holding that mental states are real, but differs in that the latter maintains that the mental states are essentially states of an immaterial mind, defined by their basic nature, rather than their function. Functionalism agrees with *logical behaviorism* in seeing a definitional connection between mental states and behavior. They differ in that the logical behaviorist maintains that mental states are not real at all; the terms that seem to stand for them are just misleading ways of describing behavior. For the behaviorist, the definitions that connect stimuli, behavior, and mental states are reductive; they show how to eliminate reference to mental states in favor of reference to stimuli and behavior. For this reason, a behaviorist definition of a mental state cannot allow ineliminable reference to other mental states. The selection from Armstrong explain and defend versions of functionalism. Nagel criticizes functionalist views in "What Is It Like to Be a Bat?"

Greatest Happiness Principle *See* **utilitarianism.**

hallucination, argument from *See* **illusion, argument from.**

hard determinism *See* **compatibilism** and **incompatibilism.**

hedonism *See* the discussion of utilitarianism in the Introduction to Part V.

hedonistic utilitarianism *See* **utilitarianism.**

hierarchical model of moral responsibility According to a hierarchical model of moral responsibility, a person is morally responsible for her

actions only if there is a 'mesh' between her *higher-order preferences* and the *first-order preferences* on which she acts. First-order preferences are our preferences about things—like a desire to have sushi for lunch or to go on a date with your significant other. Higher-order preferences concern *other* preferences. I may, for instance prefer that my first-order desire for a cigarette not move me to action, or I might hope that my actions will be guided by my desire to meet my deadline, leading me to stay home and work rather than go out with my friends. When my higher-order preferences prevail and I am moved by the first-order preferences they designate, there is a mesh between my higher-order and first-order preferences. At the most basic level of analysis, a hierarchical model of the mind posits mental states of different orders (first-, second-, and so forth), and a hierarchical model of moral responsibility exploits this sort of model of the mind to give an account of moral responsibility.

hypothetico-deductive method *See* **deductivism.**

ideas There are two quite different uses of the term *idea* in philosophy. The term *idea* is used for the denizens of Plato's heaven. Sometimes *form* is used as a less misleading translation of *eidos*. Plato's ideas or forms are not parts of our minds, but objective, unchanging, immaterial entities that our minds somehow grasp and use for the classification of things in the changing world, which Plato held to be their pale imitations.

John Locke uses the term *idea* for that which the mind is immediately aware of, as distinguished from the qualities or *objects* in the external world the ideas are of. This use for the term leaves it rather vague. Idea can be the images involved in perception, or the constituents of thought. Hume calls the first *impressions,* the latter *ideas,* and the whole class *perceptions*. For Hume, the class of impressions includes passions (emotions) as well as sensations. A feeling of anger would be an impression, as would the sensation of red brought about by looking at a fire truck. Later memory of the feeling of anger or the fire truck would involve the ideas of anger and red.

The conception of ideas as immediate objects of perception and thought, intervening between our minds and the ordinary objects we perceive and think about, was part of a philosophical movement, sometimes called "the way of ideas," greatly influenced by Descartes's *Meditations*. Descartes there uses a form of the *argument from illusion* to motivate the distinction between the mental phenomena we are certain of and the external reality that is represented by them.

identity A thing is *identical* with itself and no other. If *a* is identical with *b*, then there is just one thing that is both *a* and *b*; "*a*" and "*b*" are two names for that one thing. It follows from this that the relation of identity is *transitive* (if *a* is identical with *b*, and *b* is identical with *c*, then *a* is identical with *c*), symmetrical (if *a* is identical with *b*, then *b* is identical with *a*), and confers indiscernibility (if *a* is identical with *b*, and *a* has property P, *b* has property P).

The term *identity* is not always used in this strict sense. For example, in this sense, "identical twins" are not identical—they couldn't be twins if they were, as there would be only one of them. We sometimes use identity to mean close resemblance in one respect or another. It is best, in philosophical contexts, to use identity in the way previously explained and some other word, like *similar* or *resembles,* when that is what is meant.

The terms *numerical identity* and *qualitative identity* are sometimes used, but are best avoided. One needs to distinguish between the identity of qualities (red is one and the same color as rouge) and similarity with respect to a quality (the couch and the chair are both red; they are similar in respect of color), and this terminology obscures the distinction.

Some issues about identity are raised in the section on personal identity and in "The Paradox of Identity."

identity theory David Armstrong in "The Nature of Mind" maintains that mental states are quite literally identical with physical states. Our concept of a mental state is of a state that occupies a certain causal role; it turns out that physical states do occupy those roles; hence, mental states are

physical states. This *identity theory* is a species of *materialism*. It is also, strictly speaking, a form of *functionalism,* because it maintains that mental states are definable by their function or causal role. Many functionalists, however, think that mental states cannot be identified with physical states. They maintain that the relation is a less stringent one, *supervenience*. Functionalism in this narrower sense is often contrasted with the identity theory.

illusion, argument from Philosophers use the term *argument from illusion* for a general type of argument and for a specific version of it. These arguments are intended to show that what we are directly aware of when we perceive ordinary things are not those ordinary things themselves. We can distinguish three such arguments: the argument from perceptual relativity, the argument from illusion, and the argument from hallucination.

The argument from perceptual relativity starts with the fact that perceptions of the same object in different circumstances involve different perceptual experiences. For example, a building seen from a great distance casts a different-sized image on your retina, and creates quite a different experience, than the same building seen from a few yards away. Consider seeing a quarter held at a ninety-degree angle to your line of sight, and the same quarter held at a forty-five-degree angle. In the first case a round image is cast on your retina, in the second an elliptical image. The perceptual experience is different, although the object seen, the quarter, is the same. The conclusion drawn is that there is something involved in the experience besides the agent and the quarter, which are the same in both, that accounts for the difference. This is the *immediate* object of perception. Some philosophers take these objects to be ideas in the mind of the perceiver that represent the external object; *see* **representative ideas, theory of.** Others have taken them to be nonmental sense data. Some philosophers have taken the ideas or sense data to be materials out of which external objects are constructed, rather than representations of them.

The argument from illusion itself starts with the fact that two different objects can create the same experience. For example, a quarter held at an angle and an elliptical disk held at ninety degrees might cast exactly the same image on the retina and create the same experience. What is it that is the same? Not the objects seen, which are different. The answer again is an intervening object, which may be taken to be a subjective idea or something objective.

The argument from hallucination considers the case in which it is to one as if one were seeing an object, although there is in fact nothing at all there. This sort of case, a true hallucination, is much more unusual than those noted for the earlier two arguments. What is it that is present in our perception when there is nothing seen? It is, again, the subjective idea or the objective sense datum.

immanent causation *See* **agent-causation.**

immaterialism Immaterialism is the metaphysical doctrine held by Berkeley. He maintained that reality consisted entirely of minds (including God's) and ideas. Ordinary things were collections or congeries of ideas. Berkeley thought his view came closer to common sense than that of the philosophers he opposed (Descartes and Locke, for example), which implied the existence of *material substances* in addition to minds and ideas. Berkeley explains in his *Three Dialogues Between Hylas and Philonous* that he thinks we have no evidence for material substances, that identifying ordinary things with such substances leads to skepticism, and in fact the very concept of a material substance is incoherent.

immutability Immutability is a property often, and traditionally, attributed to God. Roughly, a being is immutable if and only if that being cannot change. However, it is a matter of some controversy whether and to what extent God is immutable. Some theists have thought that saying that God is immutable is theologically undesirable. According to these theists, God does things like creating the world and performing miracles, and (it is argued) an absolutely immutable being could not do such things, because doing them involves changing from doing one thing at one time to doing another at another time. Such theists typically argue that God's immutability should be

restricted to God's character: God's character (or what God is like) cannot change.

imperatives, categorical and **hypothetical** *See* the discussion of Kantian ethics in the Introduction to Part V.

impressions *See* **ideas.**

incompatibilism *See* **compatibilism** and **incompatibilism.**

induction *See* **induction, problem of** and **deductive argument.**

induction by enumeration *See* **deductive argument.**

induction, problem of The problem of induction, sometimes known as *Hume's problem,* has to do with justifying a very basic sort of *nondeductive* inference. We often seem to infer from observation that some sample of a population has a certain attribute to the conclusion that the next members of the population we encounter will also have that attribute. When you eat a piece of bread, for example, you are concluding from the many times in the past that bread has nourished you, that it will also do so this time. But it is conceivable that bread should have nourished in the past, but not this time. It isn't a *necessary, analytic,* or *a priori* truth that the next piece of bread you eat will be like the ones you have eaten before. How does your inference bridge the gap? It is natural to appeal to various general principles that one has discovered to hold. But, as Hume points out, the future application of principles found reliable in the past presents exactly the same problem. For example, consider the most general principle of all, that the future will be like the past. All one has really observed was that, in the past, the future was like the past. How does one know that in the future it will be? The problem of induction is stated in Hume's *An Inquiry Concerning Human Understanding,* Section IV, and discussed by Salmon, "The Problem of Induction."

inductive argument *See* **deductive argument.**

infinity The concept of infinity is a fascinating, tricky, and complex one. It has been used in a number of philosophical arguments, such as Zeno's arguments about motion, and in some of St. Thomas Aquinas's arguments for the existence of God. In the last two hundred years mathematicians have given us a clearer framework for thinking about infinity than earlier philosophers had, but this doesn't mean all of the puzzles and problems are easy to resolve.

Infinite means without end. Let's say that to count a collection of objects is to assign the natural numbers (1,2,3 . . .) in order to its members, so that every member is assigned a number and no number gets assigned twice. Let's say that *to finish counting a collection of objects* is to assign numbers in this way to every object in the collection. A finite collection of things is one that one could finish counting, at least theoretically, and say "it has n members" where n is some natural number. An infinite collection is one for which one could not finish counting. One can see from this that the set of natural numbers is itself infinite, for one would never finish counting it.

Assigning objects from one set to those in another, so that each object is assigned to only one object and has only one object assigned to it, is called putting the sets in a one-to-one correspondence. Sets that can be correlated in this way, are the same size—they have the same number of elements. Using this idea, modern mathematics has shown that not all infinite sets are the same size, so that one needs to distinguish among different infinite or *transcendental* numbers. The number of natural numbers is called aleph$_o$.

Somewhat surprisingly, this is also the number of even numbers, as there is a one-to-one correlation between numbers and even numbers (assign $2n$ to n). But it is not the number of points in a line for there is not a one-to-one correlation between the set of such points and the natural numbers. This is shown by a variation of Zeno's Racecourse Argument. Let the line be of length m. If we assign 1 to the point $m/2$, 2 to $m/4$, . . . n to $m/2n$, we will have paired a point from the continuum with each natural number, but no matter how long we go on, we will never assign a natural number to any of the points beyond $m/2$.

In thinking about infinity, it is important to keep certain distinctions in mind. One might have two quite different things in mind when calling a magnitude "infinite": that it goes on forever, or that the process of dividing it could go on forever. A finite distance like ten feet is not infinite in the first sense, but seems to be in the second: One could take the first half, half of what's left, and so on without end. Intuitively, one can traverse a finite, but infinitely divisible, distance in a finite amount of time, but not an infinite distance. Zeno's Racecourse Argument seems to show that one cannot even traverse a finite distance. But keeping this distinction in mind, what exactly does it show?

Aristotle distinguished between the potential and actual infinite. When we say that a distance of ten feet is infinitely divisible, we don't mean one could actually divide it into an infinite number of parts, but only that there are an infinite number of points in which one could divide it. Aristotle thought that this distinction took care of Zeno's arguments.

intension, intensional *See* **extension**.

intentionality An intentional act or state is one that is directed at objects and characterized by the objects at which it is directed. Intentionality in this sense is a feature not only of intentions, but of many other mental phenomena. Some philosophers take it to be the essence of mentality and consciousness. Think about how you would describe your intentions. You don't say what they look like or feel like or sound like, or what material they are made of. You say something like, "I have an intention to paint my room." You say what your intention is an intention *to do*. This essential characteristic of your intention is its *object,* the event or state of affairs it is aimed at bringing about. Similarly, if you are asked to describe your wants, you would describe *what you want*—a new car, say, or world peace. The *object* of the want or desire, the thing or state of affairs that would satisfy it, seems essential to it.

Beliefs and other *propositional attitudes* are also considered intentional. We describe our beliefs by giving the circumstances under which they are true: "Fred believes that San Francisco is the capital of California." The object of the belief is the *proposition, that San Francisco is the capital of California*. This proposition may be the object of the belief even if it is not true.

The term *intentional* should not be confused with the term *intensional,* although they are related. Many of the concepts used to describe intentional phenomena are nonextensional, which is one meaning of intensional. For example, "Oedipus intended to marry Jocasta" is a true description of an intention of Oedipus. If we substitute "his mother" for "Jocasta," we change this truth into a falsehood. So the sentence is intensional.

interactive dualism *See* **dualism**.

intrinsic *See* **extrinsic.**

intuitionism Moral or ethical intuitionism is the view that we can have some knowledge about right and wrong that is not acquired through inference. Rather, there are some moral truths that we can "just see" or "just know," perhaps through some faculty of moral intuition. J. L. Mackie criticizes this view in "The Subjectivity of Values."

justice Issues about justice are traditionally divided into issues about justice in the distribution of benefits and burdens to different individuals and groups in a society (*distributive justice*) and issues about the justice of various forms of punishment (*retributive justice*).

laws of nature Many scientists take themselves to be engaged in the project of figuring out what rules and guidelines describe the universe and its inhabitants at the most general level. That is, they are attempting to figure out the laws of nature that govern our world. For instance, Einstein discovered the law of nature that nothing travels faster than the speed of light. Presumably there is some set of statements like this that is complete in the sense that these statements would completely describe the behavior of the physical universe. These statements would be all the laws of nature (sometimes also called the laws of physics). For a discussion of how the laws of nature relate to determinism and freedom of the will, see Peter van

Inwagen's piece, "The Powers of Rational Beings: Freedom of the Will."

libertarianism *See* **compatibilism** and **incompatibilism.**

logical behaviorism *See* **behaviorism.**

manichean/manichaeism Manicheanism was a gnostic religion that originated in Persia in the third century A.D. In philosophy, manicheanism primarily arises in connection with its interesting approach to the problem of evil. According to manicheans, there are two co-eternal powers of Light and Darkness that are in perpetual conflict. We find ourselves in the midst of this struggle. Because the manicheans, unlike traditional theists, give equal priority to Light and Darkness, they do not have the problem of explaining how evil came to exist in a world created by a perfectly good being (such as God).

materialism and **physicalism** Materialism is the doctrine that reality consists of material objects and their material, spatial, and temporal properties and relations. Narrowly construed, materialism refers to material substances and properties as conceived in eighteenth-century physics and philosophy, so that material properties are confined to the primary qualities then recognized, including figure (shape), extension (size), number, motion, and solidity. A more general term is *physicalism,* where *physical properties* are taken to be whatever properties physics postulates in the best account of the physical world. The physicalist leaves open the possibility that the fundamental properties needed by physics will not be much like the primary qualities of the materialist. A chief obstacle to materialism or physicalism is the mind. *Cartesian dualists* claim that the mind is an immaterial or nonphysical object; other kinds of dualists claim that at least mental properties are above and beyond the physical properties. The physicalist response has taken the form of identity theories (the mind is the brain; mental properties are physical properties), behaviorist theories (mental terms are ways of talking about behavior), and eliminative materialism (there are no minds or mental properties; the terms that seem to refer to them are just parts of a discredited theory of how people work). *Functionalism* is hard to categorize; perhaps it maintains the letter of property dualism but the spirit of physicalism.

matters of fact and **relations of ideas** This is Hume's terminology for the *analytic–synthetic* distinction, which Hume didn't distinguish from the *a priori–a posteriori* distinction and the *necessary–contingent* distinction. Hume thought our thinking is conducted with simple ideas that are copied from impressions of external objects and complex ideas that result from combining the simple ones. The mind can put ideas together in new ways not derived from perception, so complex ideas need not correspond to external objects. These ideas also serve as the meanings of words. *Relations of ideas* are truths that simply reflect the way these ideas are related to each other and don't depend on whether the ideas actually apply to anything. Hume's examples are "that three times five is equal to the half of thirty" and "that the square of hypotenuse is equal to the square of the two sides." Such truths "are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe." The contrary of a relation of ideas will imply a contradiction and is impossible.

In contrast, matters of fact have to do with what the world is like, and not just how ideas are related. The contrary of a matter of fact is possible and doesn't imply a contradiction. Hume's example is "that the sun will rise tomorrow." This is true, and we are quite certain of it, at least most of the time. But it is true because of what happens tomorrow, not because of the way ideas are related. Its contrary, "that the sun will not rise tomorrow," is not a contradiction.

Hume maintained that only relations of ideas can be discovered a priori, and that no matter of fact can be demonstrated with only relations of ideas as premises. He argued that many principles philosophers had claimed to know a priori, such as that nothing happens without a cause, were matters of fact and could not be known that way.

Most philosophers agree that mathematical truths, like Hume's examples cited earlier, are necessary and knowable a priori. But many do

think that they are not analytic—are not simply a matter of relations of ideas, in Hume's sense.

means-end analysis To give a means-end analysis of some concept is to define it as a particular way of achieving some goal or purpose. Thus giving a means-end analysis involves two parts: a description of the goal to be achieved (the end), and a description of the way of achieving that goal (the means). For instance, we might give a means-end analysis of the concept of *intimidation*. We could specify the goal or end by saying that intimidation is a way of bringing it about that another acts in accord with one's wishes. We can then specify the means by saying that intimidation achieves this goal by making threats of one kind or another. On this means-ends analysis, then, intimidation is bringing it about that another acts in accord with one's wishes by making threats of one kind or another.

mechanisms On the account of moral responsibility suggested by J. M. Fischer, one is morally responsible insofar as one acts from one's own, appropriately reasons-responsible mechanism. A mechanism here is not thought of as a "thing," but, intuitively, as a "way" of acting or "process" that issues in a choice and action.

metaphysics Metaphysics considers very general questions about the nature of reality. It includes the study of the basic categories of things (*ontology*). Questions such as whether there are universals, events, substances, individuals, necessary beings, possible worlds, numbers, ideal objects, abstract objects, and the like arise here. Metaphysics also includes questions about space, time, identity and change, mind and body, personal identity, causation, determinism, freedom, and the structure of action.

methodological behaviorism *See* **behaviorism.**

mind-body problem The mind-body problem is the problem of accounting for the way in which our minds interact with or are related to our bodies. The mind-body problem thus comprises a central area of the subfield of philosophy called *philosophy of mind*.

modus ponens *See* **conditionals.**

modus tollens *See* **conditionals.**

moral luck As Thomas Nagel uses the term in his article of the same name, a person is subject to moral luck whenever he or she is still treated as a candidate for praise or blame even though the action in question depended in some significant way on factors outside of his or her control. Nagel identifies four types of moral luck: *constitutive luck,* luck in one's circumstances, luck in the consequences of one's actions, and luck in the antecedents of one's actions. When we act, our actions are thoroughly situated in a context that includes the sort of person that we are (our constitution), the circumstances in which we find ourselves, the events that led up to our actions, and the events that will follow from whatever we do. To the extent that we lack control over any of these aspects of the context and yet are still treated as candidates for praise and blame, we are to that extent subject to moral luck.

moral responsibility If an agent is morally responsible for her actions then those actions can make her the appropriate target of certain attitudes and practices. A morally responsible agent can be an appropriate target for what Peter Strawson dubbed the *reactive attitudes*. These include resentment, indignation, gratitude, and approval. She can also be the appropriate target for our practices of praise, blame, reward, and punishment.

We should distinguish moral responsibility from *causal* responsibility. One can be causally responsible for something, but not morally responsible for it. For instance, if you spill a glass of water on my computer, then you are causally responsible for the damage that ensues. You are also morally responsible—it could be appropriate for me to resent you for not being more careful. If, however, it is my cat that spills the water, then the cat, though just as causally responsible for the damage as you would be, is not morally responsible. It makes no sense for me to resent my cat: cats just are not an appropriate target for the reactive attitudes.

It is fairly easy to see why the cat is not morally responsible: the cat is not a person, and only persons can be morally responsible for their actions.

However, not all persons are morally responsible for their actions. For instance, children are persons, but are not generally taken to be fully responsible for their actions. Philosophers disagree about the conditions under which persons are morally responsible—about just what makes someone an appropriate target for reactive attitudes and practices of praise and blame.

mutual awareness Two people are in a state of mutual awareness when they are not only aware of one another, but also each aware of the other's awareness. For instance, suppose we are both attending a crowded party, and I recognize you from across the room. I am now aware of you, but you are not yet aware of me. Someone else engages me in conversation for a moment, and you hear my voice and spot me across the room. You are now aware of me, as I am of you. This, though, is not yet mutual awareness: I am unaware that you have noticed me, and you are unaware that I have noticed you. Once we make eye contact and realize that we have recognized one another, then we are each aware of the other's awareness. This is a state of mutual awareness.

naive realism *See* **realism.**

natural evil In discussions about the philosophical *problem of evil,* a distinction is commonly made between *moral evil* and *natural evil*. Moral evil is (roughly) evil that is brought about by the bad actions of human beings (or other created beings), whereas natural evil is evil that is (seemingly) brought about by nonagential forces (e.g., hurricanes, tornados, drought, and so on). A deer's being badly burned in a naturally caused forest fire is a paradigmatic instance of natural evil. It is important to see that responses to the problem of moral evil are not necessarily good responses to the problem of natural evil.

naturalism Naturalism is a powerful if somewhat vague philosophical view, with both epistemological and metaphysical sides. All knowledge derives from the methods we use to study the natural world, sense-perception extended by the methods of the natural sciences. The only objects and properties that we should countenance are those that we perceive in the natural world, and those that are required to explain natural phenomena by our best theories. Thus, in the title of his *Dialogues on Natural Religion,* the word *natural* tells us that Hume will consider whether basically scientific methods of inquiry and argument can lead us to a belief in an intelligent creator.

Naturalism in ethics maintains that good and bad, right and wrong are definable in terms of natural properties, such as pleasure and pain, and that there are no special methods of knowledge for moral facts.

natural religion The term *natural religion* occurs in Hume's *Dialogues*. It is basically opposed to *revealed religion*. Natural religion is religous belief based on the same sorts of evidence that we use in everyday life and science: observation and inference to the most plausible explanations for what is observed by principles based on experience. It is in this spirit that Cleanthes puts forward his analogical argument for the existence of an intelligent creator. In contrast, revealed religion relies on sacred texts and the authority of tradition and Church.

necessary *See* **contingent** and **necessary**.

necessary and **sufficient conditions** In the phrases *necessary condition* and *sufficient condition,* the term *condition* may be used for properties, statements, propositions, events, or actions. The basic idea is always that:

A *is sufficent for* B. Having (being, doing) *A* is one way of having (being, doing) *B;* nothing more is needed. You may not need to have *A* to have *B*, for there may be other ways of having *B*. But *A* is one way.

A *is necessary for* B. Every way of having (being, doing) *B* involves having (being, doing) *A*. *A* may not be all you need; it may be that every way of having *B* involves not only having *A* but also something more. But you've got to have *A* to have *B*.

For example: Having a car is sufficient, but not necessary for having a vehicle. One could have a bicycle instead. But having a car is certainly enough.

Having blood is necessary for being alive, but not sufficient. A dead man can have blood; more than blood is required to be alive. But you can't do without it.

Being in England is necessary, but not sufficient, for being in London. Being in London is sufficient, but not necessary, for being in England.

Given these explanations, there is a symmetry to necessary and sufficient conditions:

If *A* is necessary for *B*, *B* is sufficient for *A*.

Indeed, if we take conditions to be statements we can say:

When: If *P*, then *Q*,

P is sufficient for *Q*, and *Q* is necessary for *P*.

Philosophers are often interested in finding an *analysis* of some interesting condition. This involves finding a set of conditions that are *individually necessary and jointly sufficient*. If *A, B, C* are individually necessary and jointly sufficient for *D,* then each of *A, B,* and *C* are necessary, and the conjunctive condition *A* & *B* & *C* is sufficient. For example, being a male, being unmarried, and being an adult are (arguably) individually necessary and jointly sufficient for being a bachelor.

It is necessary, finally, to distinguish different kinds of necessity and sufficiency. Is the relationship a matter of logic, metaphysics, the laws of nature, or something else? The necessity of blood for human life, for example, seems a matter of natural or causal necessity, not logic or metaphysics.

necessarily truth preserving *See* **deductive argument.**

normative/normativity Normative judgments or statements concern how things should or ought to be, rather than simply how things as a matter of fact are.

object The term *object* is used in different ways by different philosophers, and one has to be careful when one encounters it. Sometimes it means any sort of things at all, whether abstract or concrete, universal or particular. On this usage numbers, people, rocks, properties, moods, propositions, and facts are all objects. Sometimes it is used for objects of thought. Sometimes it has the connotation of an ordinary material thing.

omnipotence Omnipotence is one of the traditional attributes of God. In common usage, to say that God is omnipotent is to say that God is "all powerful" or that God can (in some sense) "do anything." However, it has been notoriously difficult to analyze satisfactorily the concept of omnipotence. For instance, it is commonly held that omnipotence must be restricted to what is *logically possible to bring about*. That is, one might think that although God can do anything that is *logically possible,* he cannot do that which is logically impossible; he cannot, say, create a square circle or bring it about that 2 and 2 equals 5. Descartes, however, apparently denied this thesis, holding that God's omnipotence is unrestrained by logical possibility. Other problems associated with the thesis that God is omnipotent involve the question of whether God can sin. If God cannot sin, as has been traditionally held, it appears that there is something that God cannot do, and thus God is not omnipotent. This problem has led various philosophers and theologians to maintain that omnipotence should not be thought to entail the ability to sin, or to deny that omnipotence is a property that ought to belong to the greatest possible being.

omniscience Omniscience is one of the traditional attributes of God. In common usage, to say that God is omniscient is to say that God is "all-knowing" or that God "knows everything." More carefully, a common analysis of omniscience is that a being is omniscient if and only if that being knows all true propositions and believes no false propositions. However, some philosophers have sought to analyze the concept of omniscience in terms of what is *possible* to know. These philosophers argue that a being is omniscient if and only if that being knows all that is *possible* to know.

ontology *See* **metaphysics**.

original position *See* **veil of ignorance.**

paradox A paradox is an argument that appears to derive absurd conclusions from acceptable

premises by valid reasoning. Quine distinguishes veridical paradoxes from falsidical paradoxes and antinomies. In the case of a veridical paradox, the premises are acceptable and the reasoning valid, and we must accept the conclusion, which turns out not to be absurd under close analysis. A falsidical paradox really does have an absurd conclusion, but upon close analysis the premises turn out to be unacceptable or the reasoning invalid. An antinomy defies resolution by close analysis, for the paradox brings to the surface a real problem with part of our conceptual scheme that only revision can eliminate.

parallelism *See* **dualism**.

particulars *See* **universals** and **particulars**.

perceptual relativity, argument from *See* **illusion, argument from**.

perdurance and **endurance** It certainly seems that objects can lose parts over time without ceasing to exist. In fact, we gain and lose cells at such a rate that we are made up of completely new cells perhaps as quickly as every decade. But this simple fact gives rise to a philosophical puzzle: If I don't right now still have any of the same atoms in my body as those that were there when I was 5 years old, then how can the person writing these words be the same person as that little 5-year-old? What is it for a person to persist through time and change? According to the view called endurance, the relationship between my 15-year-old self and my 5-year-old self is identity. On this view, a single object—me—moves from one instant of time to the next as time passes, leaving nothing behind. According to another answer to this question, which has come to be known as perdurance, I am actually a four-dimensional object, extended not only in the three dimensions of space but in the one dimension of time, as well. Thus I have not only spatial parts—like my right hand and my left hand—but I also have distinct temporal parts—like my 5-year-old self and my 15-year-old self, and so on. According to perdurance, a single object "moves" through time by having a distinct temporal part at each moment of that object's existence.

personal identity Problems concerning personal identity are about what makes us persons. What are the essential properties of persons, or those properties without which a person would not be a person? What makes one person the same person from one moment to the next? What sorts of changes can a person undergo while still being the same person? Such questions are questions of personal identity. *See also* **perdurance** and **endurance.**

perversion In general, a perverse act is one that deviates from what is regarded as normal or proper. Typically perversion carries a pejorative tone—to say that something is perverse is to at least suggest that it is bad or wrong. This, though, need not be the case. Various artistic and especially comedic acts are deliberately abnormal—e.g., using a fish as a sword or making a dress out of meat. In such cases the artistic or comedic force comes precisely from the perverse nature of the action. Thus in calling such acts perverse, we might be merely characterizing or even complimenting rather than criticizing them.

Perversions, especially sexual perversions, are often characterized as unnatural. This is to say that the norm the perverse act flouts is in some sense a norm of nature. Nature here might mean the natural world, as opposed to the world of human creations, but it need not. The nature in question might instead refer to the nature or essence of the thing in question. If something is partly defined as the sort of thing it is by its function or purpose, then that purpose is part of its nature. In this sense, any use of the thing that runs counter to that purpose or ignores it entirely would, in that sense, be unnatural and perhaps perverse. For example, a skillet is for cooking—this is its function, and it is the sort of thing it is in virtue of this function. Thus using my skillet to hammer nails runs counter to the essential nature of the skillet. Thus it is in some sense unnatural and perhaps perverse.

petitio principii The petitio principii is the Latin name for the fallacy of "begging the question." One has committed the fallacy of petitio principii or has "begged the question" (roughly) when one

assumes in one's argument what one ought to be (or is trying) to prove. This fallacy is often called the fallacy of *circular argument:* When one assumes what one ought to be (or is) trying to prove, one is relying on the truth of one's conclusion when making one's argument, and is thus arguing "in a circle."

phenomenal character/qualia *See* **qualia**.

phenomenology Phenomenology is an approach to some philosophical issues developed by Edmund Husserl and his followers. It conceives of philosophy as the study of phenomena as revealed to consciousness, "bracketing" the assumptions of an orderly external world that are made by science and common sense. Phenomenology emphasizes the intentionality of consciousness. The term *phenomenology* is also used more loosely, to indicate a survey of experience connected with some topic conducted as a preliminary to theorizing. The phenomenology of an experience, in this sense, refers to how an experience seems to the person experiencing it.

physicalism *See* **materialism**.

Platonism and **platonism** Platonism refers to the philosophy of Plato (428–348 B.C.) and the movements specifically inspired by it. Uncapitalized, platonism has become a technical term in *ontology* for those who countenance abstract entities that are not merely abstractions from or constructions out of particulars, and specifically, in the philosophy of mathematics, for those who maintain that numbers are such objects. Although Plato was a platonist in this sense, most modern platonists do not hold many of Plato's most important doctrines in metaphysics, epistemology, and ethics.

possible world *See* **contingent** and **necessary**.

Pour-soi *See* **En-soi**.

practical wisdom (phronesis) Practical wisdom is a virtue—a quality of character—that allows for the proper application of a general, theoretical understanding of morality to particular, concrete cases. Someone has practical wisdom inasmuch as they are able to make competent judgments about ethical matters.

predicate The term *predicate* traditionally refers to the part of a sentence that characterizes the subject. In "Sally kissed Fred," "Sally" is the subject and "kissed Fred" is the predicate. Philosophers and logicians extend this notion, so that a sentence with one or more *singular terms* removed is a predicate. Predicates are 1-place, 2-place, and so forth, depending on the number of singular terms needed to make a sentence. A predicate is said to be *true of* an object or sequence of objects if a true sentence would result if terms referring to that object or those objects were inserted. From our example, we can get these predicates:

1. (1) kissed Fred.
2. (1) kissed (2)
3. Sally kissed (2)
4. (1) kissed (1).

(1) is a 1-place predicate, true of Sally and whoever else has kissed Fred. Predicate (2) is a 2-place predicate, true of the pair of Sally and Fred, and any other pair, the first of which has kissed the second. Number (3) is a 1-place predicate, true of Fred and others Sally has kissed. And (4) is a 1-place predicate, because it only takes one referring expression to complete the sentence, although it must be inserted twice. It is true of people who have kissed themselves.

The notion of a predicate does not necessarily fit very well with the categories linguists use to describe the structure of sentences. For example, the words *Sally kissed,* which remain after *Fred* is removed from our sentence, giving predicate (3), are not usually considered a syntactic part of the original sentence.

premise *See* **deductive argument**.

presentism *See* **eternalism** and **presentism**.

primary and **secondary qualities** Locke distinguishes *ideas* from the modifications of bodies that cause ideas in us, which he calls qualities. Among qualities, he distinguishes primary qualities from secondary qualities. Primary qualities include solidity, extension (size), figure (shape), motion,

and number. Secondary qualities include colors, sounds, tastes, and smells. According to Locke, primary qualities are inseparable from objects through alteration and division, and resemble the ideas they cause. Secondary qualities are merely powers that objects have, in virtue of the primary qualities of their insensible parts, to produce ideas in us. So when we see that a poker chip has a certain shape, an idea is being produced in us that resembles the quality involved in its production, and the poker chip will continue to have some shape or other even if it is bent or melted; if it is divided its parts will have shape. When we see that the chip has a certain color, however, we are having an idea that is caused by the primary qualities of the surface of the chip, qualities that do not resemble the idea. If we divided the chip, at some point the parts would be too small to produce any color ideas at all and would be colorless.

Locke's distinction, versions of which can be found in Descartes, Galileo, and Boyle, has been a source of controversy since he first proposed it. A favorite target of critics is the idea of a quality resembling an idea, which is not easy to make much sense of. Berkeley makes this criticism and others in his *Dialogues*.

principle of alternate possibilities In Harry Frankfurt's article, "Alternate Possibilities and Moral Responsibility," he formulates this principle as the claim that a person is morally responsible for what he or she has done only if he or she could have done otherwise. The idea that this principle attempts to capture is related to the "garden of forking paths" picture described in Peter van Inwagen's article, "The Powers of Rational Beings: Freedom of the Will."

Principle of Utility *See* **utilitarianism**.

problem of other minds The problem of how (and whether) one can know that other minds exist besides one's own. For discussion, see Russell's "The Argument from Analogy for Other Minds."

properties and **relations** Consider these three facts:

1. Nixon was born in California.
2. Carter was born in Georgia.
3. Nixon was older than Carter.

These facts have different things in common with one another. Facts 1 and 3 are about the same people, Nixon and Carter, but involve different relations. Facts 1 and 2 are about different *individuals,* but involve the same relation.

The relation involved in 1 and 2 is *being born in*. This is a relation between people and places. Philosophers might say that 1 states that the relation *being born in* obtains between Nixon and California, 2 states that it obtains between Carter and Georgia, and 3 states that the relation *older than* obtains between Nixon and Carter.

Being born in and being older than are both binary or 2-ary relations: relations that obtain between two objects. Three important properties of 2-ary relations are *transitivity, symmetry,* and *reflexivity*. Suppose that R is a 2-ary relation. Then:

- R is *transitive* if it follows from the fact that a has R to b and b has R to c that a has R to c. For example, *being longer than* is a transitive relation: If a is longer than b and b is longer then c, then a is longer than c. However, *liking* is not transitive: From the fact that Bob likes Mary, and Mary likes Carol, it does not follow that Bob likes Carol.
- R is *symmetrical* if it follows from the fact that a has R to b that b has R to a. *Being a sibling of* is symmetrical; *being a brother of* is not.
- R is *reflexive* if it follows from that fact that a has R to b that a has R to a. If Bob is the same height as anyone at all—if he is the sort of thing that has height at all—then he is the same height as himself.

Relations that are transitive, symmetrical, and reflexive are *equivalence relations*. There are also 3-ary relations, and in principle there are n-ary relations for any n. When we say, "Nebraska City is between Omaha and Topeka," we are stating that a 3-place relation obtains among three cities. It is often useful to use variables to indicate the places of relations, so the relation here is *x is between y and z*.

It is sometimes useful to talk about the *arguments* or *parameters* of a relation. Thus one could say that the place argument (or parameter) of the relation of being born in was filled in 1 by California and in 2 by Georgia. In the example in the last

paragraph, we might say that Topeka filled the *z* argument of the relation of *x is between y and z*.

When we say that a person is old, or tired, or silly, we are not saying something about a relation he or she stands in to someone or something else, but stating a property that he or she has or doesn't have by himself or herself. Properties are 1-ary relations.

So far we have been ignoring time. Consider 4:

4. Carter lives in Georgia.

Number 4 is true now, but wasn't true when Carter was president and lived in Washington, D.C. It seems that living in is really a 3-ary relation, among people, places, and times, even though it looks like a 2-ary relation. Similarly, because people can be old, tired, or silly at one time, while being young, energetic, and serious at others, these are all really 2-ary rather than 1-ary relations. When we take time into account, we need to think of most properties as 2-ary relations between individuals and times.

property dualism *See* **dualism**.

proposition Consider the report, "Russell said that Hegel was confused." The phrase "that Hegel was confused" identifies a proposition, which was *what Russell said*. Others could assert the same proposition, and it could also be believed, doubted, denied, and the like. We could say, "Taylor doubted that Hegel was confused," "Moore believed that Hegel was confused," and so forth. It seems that the same proposition could be expressed in other languages, so a proposition is not just a particular sentence type. A proposition is an abstract object that has conditions of truth, and it is true or false depending on whether those conditions are met. Propositions are identified by statements and are referred to by "that-clauses," like "that Hegel was confused."

The existence and ontological status of propositions are matters of controversy. Some philosophers believe that propositions are mysterious entities that should be avoided; we should get by just talking about sentences that are true, without bringing in propositions. Among philosophers who accept the need for propositions, some think they should be defined in terms of properties, facts, possible worlds, and other more basic categories, whereas others think they are primitive.

propositional attitude The propositional attitudes are those mental acts and states, such as belief, knowledge, and desire, that have truth or satisfaction conditions, so that they may be characterized by the propositions that capture those conditions. We say, for example, "Russell believed *that Hegel was confused,*" characterizing Russell's belief by a proposition that captures its truth conditions. And we say that Russell desired that *there would be no more wars,* thereby characterizing Russell's desire by a proposition that captures its satisfaction conditions.

Pyrrhonism Unless used in specialized historical contexts, Pyrrhonism is synonymous with *skepticism*. *See* **sceptic, skeptic**.

qualia Consider what it is like to have a headache and how it feels. It is somewhat different from what it is like to have a toothache, and vastly different from what it is like to taste a chocolate chip cookie. We try to avoid headaches because of what it is like to have them, and we try to find and eat chocolate chip cookies, because of what it is like to taste them.

What it is like to have a certain kind of experience is one aspect of that experience. Philosophers call such aspects *qualia*. Other terms that are used more or less similarly are *subjective characters,* and *phenomenal characters*.

Philosophers such as Thomas Nagel in "What Is It Like to Be a Bat?" and Frank Jackson in "What Mary Didn't Know" claim that the qualia or subjective characters of mental events and states cannot be identified with or reduced to physical aspects of those events and states. Thus even if we suppose that headaches *are* brain states, we have to admit that these brain states have nonphysical properties, their qualia. If we accept the arguments of Nagel and Jackson, we seem to have to accept some form of *dualism*. Minds may not be immaterial *things,* but at least

they have immaterial *properties,* such as being in states with certain conscious aspects or qualia.

David Lewis, in "Knowing What It's Like," claims that qualia can be handled by the physicalist.

qualities *See* **primary** and **secondary qualities**.

rationalism Rationalism is an epistemological position that emphasizes reason as a source of knowledge itself, not merely a way of organizing and drawing further hypotheses from knowledge gotten by sense perception. *Continental rationalism* is a term sometimes applied to Descartes, Spinoza, Leibniz, and other seventeenth- and eighteenth-century philosophers. *See also* **empiricism**.

realism In philosophy the term *realism* is used in a context of controversy in which the reality of objects of some category has been denied in some way, usually by claiming that the objects in question are creations or constructions of the human mind. The realist in the controversy is one who defends the status of the controversial objects. A philosopher can be a realist about one issue, while denying realism with respect to some other. The two most common contexts in which the term is used are universals and the objects of sense perception. A realist about universals holds that they are real, in the sense of not being mere names or concepts. A realist about the objects of sense perception holds that they are real, in the sense of enjoying an existence independent of the perceiving mind.

Naive realism is the view that the objects of perception not only exist, but exist just as they seem to be. This position is often taken to be refuted by the various forms of the argument from illusion. *See* **illusion, argument from; representative ideas, theory of**.

reason Reason is the ability or faculty to engage in theoretical and practical reasoning. A number of philosophical issues are concerned with the role of reason in various spheres of human life. *Rationalists* and *empiricists* disagree about the role of reason in the formation of concepts and the development of knowledge, the latter seeing it only as an aid to experience. Kant supposed that there were fundamental principles of conduct provided by practical reason, whereas Hume argued that in the practical sphere reason "is, and ought only to be the slave of the passions." *See* **reasoning, practical** and **theoretical**.

reasoning, practical and **theoretical** Theoretical reasoning is aimed at assessing evidence and drawing conclusions about what is true. Practical reasoning is aimed at making decisions about what to do.

reasons-responsiveness This is a family of ideas that specify that an agent (or an agent acting on a particular mechanism) has (or exhibits) a capacity to identify and act in accordance with reasons for action. Reasons are typically thought to be considerations that count in favor of actions. So a reasons-responsive agent (or mechanism) is capable of identifying and acting in accordance with considerations that count in favor of actions. Some philosophers (including J.M. Fischer, S. Wolf, and R.J. Wallace) have given accounts of moral responsibility in terms of reasons-responsiveness.

reciprocity Engaging in reciprocity involves, as it were, 'returning the favor.' When we help others as we have been helped we are engaging in a reciprocal relationship.

reductio ad absurdum Literally translated from Latin, this phrase means "reduction to the absurd." It is a form of argument in which some statement is shown to be true because its denial has obviously false consequences. For instance, suppose we are trying to establish that p is true. To argue for p by reductio ad absurdum would be to argue that the denial of p leads to the obviously false statement q. But because q is obviously false, it must have been wrong to deny p in the first place—so, p must be true.

reductionism In philosophy the term *reductionism* occurs in the context of a controversy about the status of some kind of object. The reductionist maintains that talk and knowledge about such objects really amount to talk and knowledge about some class of objects that is usually thought to be quite different. Talk and knowledge about the first kind of object are *reduced* to talk and knowledge about the second kind. For example, Berkeley thought that talk and knowledge about ordinary objects were really just talk and

knowledge about ideas. A philosopher can be a reductionist about some categories of objects while being a nonreductionist about others.

refers Philosophers use a number of terms for the relationship that holds between singular terms and the objects they designate or stand for. *Refers* is used both for the relation between singular terms and what they stand for, and for the act of using a singular term to stand for something ("'That piece of furniture' refers to the chair" vs. "Jane used 'that piece of furniture' to refer to the chair.") The thing referred to is often called the *referent*. *Denotes* is most properly used for the relation between a definite description and the object that uniquely meets the descriptive part, as in "'The author of *Waverley*' denotes Sir Walter Scott." But *denotes* is often simply used as a synonym of *refers*. The thing denoted is sometimes called the *denotation* and, less often, the *denotatum*. *Names* is used for the relation between a name and its *bearer* (or *nominatum*), as in "'Fred' names that man." *Designate* and *stands for* are used in a very general way, as the latter has been in this discussion. *See also* **extension** and **intension**; **singular term**.

reflective equilibrium In the course of theorizing, one often has to make some sort of compromise between general principles and considered judgments about particular cases. Sometimes general principles will need to be amended in the light of conflicting considered judgments, and sometimes judgments will need to be revised in the light of otherwise successful general principles. To arrive at a balance between the two is to achieve reflective equilibrium. For more details and further discussion, see John Rawls, "A Theory of Justice."

relation of ideas *See* **matters of fact** and **relations of ideas**.

relativism The term *relativism* is used with reference to a body of statements or alleged truths about some sort of phenomena. The relativist maintains that these statements (1) are only true (or false) *relative* to some further factor or parameter, not explicitly mentioned in the statements themselves; (2) that this parameter is a person or group of people making the judgment, or something corresponding to a group of people such as a culture or a language; (3) hence there is no *objective* truth or falsity; that is, no truth or falsity merely concerning the objects involved in the phenomena independently of the subjects making those judgments. (In the terms explained in *properties* and *relations,* the relativist is claiming that an n-ary property is being treated as an (n-1)-ary property.)

Here is an example where relativism is pretty plausible. Consider the comparative merits of the taste of food. Does the issue of whether carrots taste better or worse than cucumbers have an answer? The relativist, with regard to this issue, would say that there is an answer only *relative* to a particular taster. Carrots may taste better than cucumbers *to* Mary, whereas cucumbers taste better than carrots *to* Fred. The relativist would say that there is no *further* question of who is right. The question whether carrots taste better than cucumbers *simpliciter*, without further reference to a person who does the tasting, makes no sense. On the relativist view, the judgments of Fred and Mary are misconstrued if they are taken to be opinions about some nonrelative truth. Because taste is relative, there should be no room for such a dispute.

There are many types of relativism that are more controversial and so more interesting than relativism about the taste of food. *Ontological relativists* claim that existence is relative: that different languages, cultures, or conceptual schemes recognize different classes of objects and properties, and questions of existence make no sense considered outside of such *conceptual schemes*. Perhaps the most interesting example is *ethical relativism*. Ethical relativists claim that judgments of right and wrong are relative to individuals, societies, or cultures.

representative ideas, theory of The theory of representative ideas maintains that knowledge of external things is mediated by ideas in the mind of the knower that represent those things in virtue of a twofold relation they have to them. The ideas are *caused by* the external things, and *depict* those

external things as having certain properties. Suppose, for example, one perceives a chair in front of one. The chair causes light to fall on the retina in a certain pattern, which causes other events in the visual system, which ultimately cause ideas of a certain sort in the mind. These ideas have certain features, which depict the object causing it to be a chair of a certain sort.

This theory allows an account of error and a treatment of the *argument from perceptual relativity* and the *argument from illusion*. The argument from perceptual relativity shows that which thing an idea represents and how it depicts that object to be do not depend just on the features of the idea, but also auxiliary beliefs. The same visual image might represent an object as elliptical or circular, depending on whether it was taken to be held at a right angle or acute angle to the line of vision. Normal errors and illusions occur when the idea caused by a thing does not accurately depict it, either because the auxiliary beliefs are wrong, or something unusual in the perceiving conditions or the perceiver's state leads to a wrong idea being produced. The more radical types of error involved in certain kinds of delusions, such as hallucinations, involve having an idea that is not caused by an external thing at all, but some disorder in the perceiver.

Fairly explicit versions of the theory of representative ideas may be found in Descartes and Locke. Berkeley, Hume, and others have criticized the theory for various reasons, including that it leads to *skepticism,* as, it seems to provide no direct means of knowing the external objects, that the notion of depiction makes no sense, and that the whole picture of "double existence" is incoherent.

revealed religion *See* **natural religion**.

sceptic, skeptic *Skeptic* is an American spelling, *sceptic* the British. When a view is labeled *skeptical,* there are two things that must be ascertained, the type of skepticism and its topic. The skeptic can be advocating suspension of claims of knowledge or certainty, suspension of belief, or positive disbelief. Hume, for example, thinks that we cannot *know* through reason that the future will be like the past, but does not claim we should refrain from believing it; indeed, he thinks it is both natural to do so and impossible not to do so except for brief periods while doing philosophy. He describes this position as skeptical. Whatever type of skepticism is being advocated, a philosopher can be skeptical about some things and not others. For example, a philosopher might be skeptical about the existence of God, but not about the external world.

second-order desires *See* **second-order volitions**.

second-order volitions The theory of freedom that Harry Frankfurt constructs in his "Freedom of the Will and the Concept of a Person" relies on the idea that our desires are structured hierarchically. On the first order, we desire objects or states of affairs in the world. For instance, my desire to have another cup of coffee is a first-order desire. But humans have enough psychological complexity to have second-order desires, as well, which are preferences in favor of or against having certain first-order desires. So, perhaps the only reason I desire another cup of coffee is that I'm addicted to caffeine, but I would rather not be addicted. In this situation, although I may have a first-order desire for another cup of coffee, I have a second-order desire not to have the desire for another cup of coffee.

Roughly, to figure out what your first-order desires are, ask yourself, "What do I want?" To figure out what your second-order desires are, ask yourself, "What do I want to want?" In theory, the hierarchy of desires has no end (there can be third- and fourth-order desires as well), but after two or three the structure is quite difficult to think about clearly.

Second-order volitions, as Frankfurt uses the term, are special sorts of second-order desires. Some second-order desires are simply desires to have a particular first-order desire. But others are desires that some particular first-order desire effectively move the agent to action. In other words, whereas sometimes we merely want to have certain first-order desires, other times we want those first-order desires actually to move us

to act. These latter sorts of second-order desires are what Frankfurt calls second-order volitions. Frankfurt dubs creatures who lack second-order volitions *wantons*.

secondary qualities *See* **primary** and **secondary qualities**.

semicompatibilism Semicompatibilism is the doctrine that causal determinism is compatible with moral responsibility, quite apart from the issue of whether causal determinism is compatible with freedom to do otherwise. The view presupposes that moral responsibility does not require freedom to do otherwise. (The term was first introduced by J.M. Fischer.)

sense-data Some philosophers who accept that the various forms of the argument from illusion show that we do not directly perceive material objects, use the terms *sense-datum* and *sense-data* for what we do directly perceive. Unlike the terms *idea* or *sensation,* the term *sense-data* does not imply that the direct objects of perception are mental, but leaves that question open. Sense-data are objects of some sort, distinguished from the act of being aware of them. Sense-data are usually supposed to have all of the properties they seem to have. Suppose, for example, you see a blue tie in a store with fluorescent lighting, it looks green, and you take it to be so. A philosopher who believes in sense-data would say that you are directly aware of a sense-datum that is green; your mistake is in your inference from the fact about the sense-datum's color to the tie's color.

sex Sex can refer to various forms of intimate, erotic activity. Exactly which activities of this sort are, properly speaking, sex is a matter of controversy, both in philosophy and elsewhere.

simplicity Simplicity is a property traditionally attributed to God. Roughly, a being is simple if and only if that being lacks parts or composition. The doctrine of divine simplicity is very controversial; philosophers not only do not agree about whether God is simple, but do not agree about what the doctrine of divine simplicity means or entails. Classical theists such as Augustine, Anselm, and Aquinas have defended the doctrine of divine simplicity. Of course, simplicity (lacking parts or internal structure) is a property that can be possessed by entities other than God.

singular term Singular terms include proper names (John, Fred), singular definite descriptions (the author of *Waverley,* the present king of France, the square root of two), singular pronouns (I, you, she, he, it), and singular demonstrative phrases (that man, this ship). These terms all identify or purport to identify a particular object, about which something further is said.

The category *singular term* is found in philosophy and philosophical logic more than in linguistics. The category includes expressions that are syntactically quite different, like definite descriptions and names, and separates things that syntactically seem closely related, like singular and plural definite descriptions ("the governor of Maryland," "the senators from Maryland").

solipsism Solipsism is the thesis that only the self exists, or (alternatively) that only the self can be known to exist. Solipsism is one radical solution to the "problem of other minds," the problem of how it is that one can know that any minds besides one's own exist. According to the solipsist, one can't know that the (apparent) persons one interacts with actually have mental lives like one's own.

sophism A sophism is a bad argument presented as if it were a good one to deceive, mislead, or cheat someone; *sophistry* is the practice of doing this.

In Ancient Greece, the sophists were itinerant teachers of the fourth and fifth centuries B.C., some of whom, such as Protagoras and Gorgias, Socrates criticized vigorously. His negative view was based on the empiricism, relativism, and skepticism of their teachings; on the fact that they took a fee; and on the fact that they taught argument for the sake of persuasion and manipulation of others, rather than for the pursuit of truth.

sound *See* **deductive argument**.

state of nature The state of nature is the hypothetical situation in which human beings would

find themselves without the existence of any government or state that can exercise coercive force over them.

subjective character *See* **qualia**.

Sub specie aeternitatis Literally, this phrase is translated as "under the aspect of eternity." It is used in roughly the same way as the phrase "from a God's-eye point of view" and is meant to indicate an impersonal, detached, and objective view of the world and its goings-on. Thomas Nagel invokes this notion while discussing the meaning of life in "The Absurd."

substance The term *substance* has been used in a variety of ways in philosophy. In modern philosophy, a substance is a thing capable of independent existence. Substances are contrasted with qualities and relations, on the one hand, and complexes, on the other. These are all merely ways that substances are. Philosophers have had dramatically different opinions about what meets these conditions. Descartes thought that there were two basically different kinds of substance, material and immaterial, and there were many of each, and that no way of being material was a way of being mental and vice versa. Spinoza thought that there was but one substance, and material and mental reality were aspects of it. (He called this thing *God,* although many of his opponents thought his view amounted to atheism.) In "Of Scepticism with Regard to the Senses," Hume treats our perceptions as substances—the ultimate, independent constituents of reality.

supererogation If you ought to do some action, then it is *obligatory*. If some action is not obligatory but would nevertheless be good to do, then it is supererogatory. Many think that to give money to famine relief, for instance, is to go "above and beyond" one's obligations and hence is to perform an action that is supererogatory. For a challenge to this view of giving money to famine relief, however, see Peter Singer's "Famine, Affluence, and Morality."

supervenience A set of properties *A* supervenes on another set of properties *B,* if all objects with the same *B*-properties have the same *A*-properties. Many advocates of *functionalism* maintain that although mental properties cannot be identified with physical properties (as the *identity theory* holds), they nevertheless *supervene* on them. Both the identity theorist and the supervenience theorist maintain that beings that are physically indiscernible will have the same mental properties. But the supervenience theorist allows that beings that are mentally alike, may be quite different physically. For example, a philosopher might think that agents built out of silicon-based computers, humans, and individuals from outer space with a completely different biology than ours could all have beliefs, desires, and intentions, in spite of the difference of their physical constitution and organization.

syllogism A syllogism is a valid deductive argument or argument form with two premises and a conclusion, that involves universal and existential statements involving three terms. For example:

All *As* are *Bs*.
All *Bs* are *Cs*.
Therefore, all *As* are *Cs*.

Some *As* are *Bs*.
No *Bs* are *Cs*.
Therefore some *As* are not *Cs*.

In these examples, *B* is the *middle term;* it appears in the premises to connect the terms in the conclusion, but does not itself appear in the conclusion. *A* is the *minor term* because it is the subject of the conclusion and *C* is the *major term* because it is the predicate of the conclusion. Much of the theory of syllogism was worked out by Aristotle. The class of valid deductive arguments studied in modern logic is much larger.

synthetic *See* **analytic** and **synthetic**.

teleological ethics *See* **consequentialism**.

teleology/teleological *See* **final causation**.

theodicy A philosophical response on the part of a believer to the *problem of evil*.

transeunt causation *See* **agent-causation**.

transitive *See* **properties** and **relations**.

Turing machine A Turing machine is not a real machine one can go out and buy, but an abstract conception invented by A. M. Turing to help think about computing and computers. The machine scans a square on a tape, erases what it finds there, prints something new, moves to a new square, and goes into a new state. What it prints, where it moves, and into what state it goes are all determined by the state in which it was in the beginning and what it found on the square. Computer scientists and logicians have shown that Turing machines—given enough time and tape—can compute any function that any computer can compute.

types and **tokens** How many words are in this statement?

An argument is an argument,
but a good cigar is a smoke.

There are twelve word tokens, but only eight word types. There are two tokens each of the word types "an," "argument," "is," and "a" and one each of "but," "good," "cigar," and "smoke." The types are *universals,* whereas the tokens are *particulars*.

uniformity of nature The principle of the uniformity of nature maintains that the same basic patterns or laws are found throughout nature; the future will be like the past, at least in terms of the basic operations of nature; and more generally the unexamined parts of nature will be like the parts that have been examined up to a certain point. This principle seems to underlie the use of past experience to form expectations about the future, but, according to Hume, it isn't itself susceptible of proof. The principle is discussed by Hume and Hempel; Goodman's new riddle of induction poses a puzzle about how this principle is to be understood.

universal causation, principle of The principle of universal causation holds that all events have causes, though not necessarily deterministic causes. *See also* **determinism**.

universals and **particulars** A particular is what we would ordinarily think of as a thing, with a particular position in space at any one time. A universal is that which particulars have in common, or may have in common. The kind, *human,* is a universal; individual people are particulars. *Types* are universals, *tokens* are particulars. Properties such as being red are universals; philosophers disagree about whether it is red things (roses, barns) that have them in common, or particular cases of the property (the redness of the rose, the redness of the barn). Not all philosophers agree that there are universals. *Nominalists* maintain that universals are just names that we apply to different objects that resemble one another; metaphysics should recognize particulars that resemble each other in various ways, but not universals above and beyond those particulars. A nominalist might claim that the type–token distinction really amounts to providing two ways of counting tokens, not two kinds of object to be counted.

use and **mention** Ordinarily when a word appears in a statement, it is being used to talk about something else. If one wants to talk about the word itself, one has to mention it. In the statement,

The word "four" has four letters,

"four" is mentioned the first time it occurs and used the second time it occurs. When a word is mentioned, one may be talking about the *token* or the *type*.

Utilitarianism Utilitarianism is a *consequentialist* ethical theory. Utilitarianism is usually connected with the more specific doctrines of Bentham and Mill, who took the goodness of consequences to be measured by their effect on the happiness or welfare of sentient creatures. (This is sometimes referred to as the principle of Utility or the Greatest Happiness Principle.) Bentham focused on pleasure, Mill on a more abstract notion of happiness that allowed him to maintain that "It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a pig satisfied." For further discussion, see the Introduction to Part V.

valid *See* **deductive argument**.

veil of ignorance The term *veil of ignorance* is sometimes used to characterize the skeptical consequences of the *theory of representative ideas*. According to this theory, we only directly know the contents of our own mind; these then form a sort of veil between us and the external world. This term is also often used in religion, to suggest a fundamental feature of the human condition: All of experience is simply a veil of ignorance between us and what is most real, or matters most.

The term was given a new use in ethics by John Rawls, as an important part of his characterization of the *original position*. The original position is a hypothetical state of affairs in which members of a society choose the principles of justice that will govern them. This choice is to be made behind a veil of ignorance in the sense that the persons making this choice are not to know their class, position, social class, intelligence, strength, and so forth. The underlying intuition is that by being ignorant of these specifics, these individuals will be led to make an impartial and fair choice.

verificationism Although it comes in many varieties, verificationism is characterized by a general distrust of claims that cannot be shown to be true, or verified, using only empirical methods like those available to the natural sciences. Many held that because the claims of ethics, metaphysics, and religion cannot be empirically verified, they are meaningless. Although this view of meaning is largely discredited today, it was highly influential in the early twentieth century.

virtue ethics *See* **virtue theory**.

virtue theory (virtue ethics) This is an approach to ethical theory that is frequently traced to Aristotle and contrasted with approaches drawn from, for example, Kant and Mill. A virtue theory highlights questions about the nature of those character traits that are virtues—for example, courage. Such questions are seen as in some way fundamental to the theory.

wanton *See* **second-order volitions**.