Introduction

This dictionary is an attempt to comprehensively define all of the most important philosophy terms in a way that could be understood by anyone without requiring an extensive philosophical education. Examples are often discussed to help make the meaning of terms clear.

This list includes critical thinking concepts, and many of those should be understood by everyone to improve rational thought. Many of these concepts are important distinctions made by philosophers to help us attain nuanced thoughts. For example, David Hume introduced us to the concept of “matters of fact” and “relations of ideas.” It will often be said that a term can be contrasted with another when doing so can help us make certain distinctions.

Sometimes a term can be best understood in the context of other terms. They are related. For example, understanding “formal logic” can help us better understand “logical connectives.”

Note that multiple definitions are often given for a term. In that case the definitions are separated by numbers and we should keep in mind that we should try not to confuse the various definitions the terms can have. For example, philosophers use the word ‘argument’ to refer to an attempt at rational persuasion, but other people use the word to refer to hostile disagreement. See “ambiguity” and “equivocation” for more information.

Definitions

*a fortiori* – Latin for “from the stronger thing.” A conclusion is true *a fortiori* if a premise makes it trivially true. For example, “All men are mortal, *a fortiori*, Socrates is mortal.”

*a posteriori* – Latin for “from the later.” *A posteriori* propositions or beliefs are justified entirely by observation. An example of an *a posteriori* proposition is “human beings are mammals.” “*A posteriori*” is the opposite of “*a priori*.”

*a priori* – Latin for “from the earlier.” *A priori* propositions or beliefs are justified (at least in part) by something other than observation. Many philosophers agree that propositions that are true by definition have an *a priori* justification. An example of an *a priori* proposition is “all bachelors are unmarried.” “*A priori*” is the opposite of “*a posteriori*.”

A-type proposition – A proposition with the form “all *a* are *b*.” For example, “all cats are animals.”

abduction – A form of reasoning that consists of trying to know what is likely true by examining the
possible explanations for various phenomena. Abductive arguments are not necessarily deductive arguments, but they provide some support for the conclusion. The “argument to the best explanation” is an example of abductive reasoning. For example, we can often infer that a neighbor is probably home when we see a light turn on at her house because it's often the best explanation.

**abductive reasoning** – A synonym for “abduction.”

**The Absolute** – A term for “God” or “the Good.”

**absolute truth** – Something true for all time no matter what situation is involved. A plausible example is the law of non-contradiction. (Statements can't be true and false at the same time.)

**abstract entities** – Things that are not physical objects or states of mind. Instead, they exist outside space and time. For example, there are mathematical realists who think that numbers are abstract entities that exist apart from our opinions about them, and there are factual statements concerning how numbers relate. See “Platonic Forms” for more information.

**abstraction** – To conceptually separate various elements of concrete reality. For example, to identify an essential characteristic of human beings as the ability to reason would require us to abstract away various elements of human beings that we describe as “the ability to be rational.”

**abstractism** – The view that something is necessary insofar as it's true of every consistent set of statements, and something is possible insofar as it's true in at least one consistent set of statements. It's necessary that oxygen is $\text{O}_2$ insofar as it's true that oxygen is $\text{O}_2$ in every consistent set of statements, and it's possible for a person to jump over a small rock insofar as at least one consistent set of statements has a person jump over a small rock. Abstractism could be considered to advocate the existence of “abstract entities” insofar as the existence of a consistent set of statements could be considered to be factual as an abstract entity.

**absurdism** – The view that it is absurd for people to try to find the meaning of life because it's impossible to do so.

**absurdity** – (1) The property of contradicting our knowledge or of being logically impossible. For example, it is absurd to think knowledge is impossible insofar as we know that “$1+1=2$.” See “reductio ad absurdum” for more information. (2) “Absurd” is sometimes equated with “counterintuitive.” (3) An irreconcilable interest people have, or a search for knowledge that can't be completed. For example, it is sometimes said that it's absurd for people to search for an ultimate foundation for value (or the meaning of life) even though we can never find an ultimate foundation for value. (4) In ordinary language, “absurdity” often means “utterly strange.”

**accessibility** – (1) The relevant domain used to determine if something is necessary or possible. It is thought that something is necessary if it “has to be true” for all of the relevant domain, and something is possible if it is true of at least one thing within the relevant domain. For example, some philosophers believe that it's possible for people to exist because they exist in at least one accessible possible world—the one we live in. See “accessible world,” “possible world,” “truth conditions,” and “modality” for more information. (2) In ordinary language, “accessibility” refers to the ability to have contact with something. For example, people in jail have access to food and water; and citizens of the United States
have access to move to any city found in the United States.

**accessible world** – A world that is relevant to our world when we want to determine if something is necessary or possible. For example, we could say that something is necessary if it's true of all accessible worlds. Perhaps it's necessary that contradictions are impossible because it's true of all accessible worlds. An accessible world is not necessarily a world we can actually go to. They could exist outside our universe or only exist conceptually. See “possible world,” “truth conditions,” and “modality” for more information.

**accidental characteristic** – A characteristic that could be changed without changing what something is. For example, an accidental characteristic of Socrates was his pug nose—he would still be a person (and Socrates) without having a pug nose. “Accidental characteristics” are the opposite of “essential characteristics.”

**accidentalism** – The metaphysical view that not every event has a cause and that chance or randomness is a factor that determines what happens in the universe. Many philosophers think that quantum mechanics is evidence of accidentalism. Accidentalism requires that we reject “determinism.”

**acosmism** – The view that the universe is illusory and god is the ultimate reality.

**act utilitarianism** – A consequentialist theory that claims that we should strive to maximize goodness (positive value) and minimize harm (negative value) by considering the results of our actions. The situation is very important to knowing what we should do. For example, it is generally wrong to hurt people, but it might sometimes be necessary or “morally right” to hurt others to protect ourselves. “Act utilitarianism” can be contrasted to “rule utilitarianism.”

**ad hoc** – A Latin phrase that literally means “for this.” It refers to solutions that are non-generalizable and only used for one situation. For example, *ad hoc* hypotheses are designed to save hypotheses and theories from being falsified. Some scientists might think dark energy is an *ad hoc* hypothesis because it is used to explain nothing other than why the universe is expanding at an increasing rate, which contradicts our understanding of physics.

**ad hominem** – A Latin phrase that literally means “to the person.” It refers to insults, and usually to fallacious forms of reasoning that make use of insults or disparaging remarks. For example, we could respond to the a doctor's claim that “smoking is unhealthy” by saying the doctor who made the argument drinks too much alcohol.

**ad infinitum** – Latin for “to infinity” or “forevermore.” It can also be translated as “on and on forever.”

**addition** – A rule of inference that states that we can use “a” as a premise to validly conclude “a and/or b.” For example, “Dogs are mammals. Therefore, Dogs are mammals and/or lizards.”

**æon** – Latin for “life,” “age,” or “for eternity.” Plato used this term to refer to the eternal world of the Forms.

**aesthetics** – The philosophical study of beauty and art. For example, some philosophers argue that beauty is an objective property of things, but others believe that it's subjective and might say, “Beauty
is in the eye of the beholder.”

**affirmative categorical proposition** – A synonym for “positive categorical proposition.”

**affirmative conclusion** – A categorical proposition used as a conclusion with the form “all \( a \) are \( b \)” or “some \( a \) are \( b \).” For example, “some animals are mammals.”

**affirmative premise** – A categorical proposition used as a premise that has form “all \( a \) are \( b \)” or “some \( a \) are \( b \).” For example, “some mammals are dogs.”

**affirming the disjunct** – A fallacy committed by an argument that requires us to mistakenly assume two propositions to be mutually exclusive and reject one proposition just because the other is true. The argument form of an argument that commits this fallacy is “Either \( a \) or \( b \). \( a \). Therefore, not-\( b \).” For example, consider the following argument—“Either Dogs are mammals or animals. Dogs are mammals. Therefore, dogs are not animals.”

**affirming the consequent** – An invalid argument with the form “if \( a \), then \( b \); \( b \); therefore, \( a \).” For example, “If all dogs are reptiles, then all dogs are animals. All dogs are animals. Therefore, all dogs are reptiles.”

**agency** – The ability of a fictional or real person to act in the world.

**agent** – A fictional or real person who has agency (the ability to act in the world).

**agent causation** – A type of causation that's neither determined nor random produced by choices made by people. Agent causation occurs from an action caused by a person that's not caused by other events or states of affairs. For example, it's not caused by the reasoning of the agent. See “prime mover” and “libertarian free will” for more information.

**agent-neutral reasons** – A reason for action that is not dependent on the person who will make a decision. For example, everyone could be said to have a reason to find a cure for cancer because it would save lives. The assumption is that there is a reason to find a cure cancer does not depend on unique motivations or duties of an individual (and perhaps saving lives is good for its own sake). Classical utilitarianism is an agent-neutral ethical theory because it it claims that all ethical reasons to act concern whatever has the most valuable consequences. “Agent-neutral reasons” are often contrasted with “agent-relative reasons.”

**agent-relative reason** – A reason for action that is dependent on the person involved. For example, a person has a reason to give money to a friend in need because she cares for the friend. Ethical egoism is an agent-relative theory that claims that the only reasons to act are agent-relative. “Agent-relative reasons” are often contrasted with “agent-neutral reasons.”

**agnosticism** – The view that we can't (currently) know if gods exist or not.

**Agrippa's trilemma** – A synonym for “Münchhausen trilemma.”

**akrasia** – Greek for “lacking power” and often translated as “weakness of will.”
alethic – Latin for “species.”

alethic logic – A formal logical system with modal operators for “possible” (◊) and “necessary” (□.)

alethic modality – The distinction between “possibility” and “necessity” used within formal logical systems.

The All – A term for “the absolute,” “God,” or “the Good.”


alternate possibilities – Events that could happen in the future or could have happened in the past instead of what actually happened. Alternate possibilities are often mentioned to refer to the ability to do otherwise. For example, some people think free will and moral responsibility require alternate possibilities. Let's assume that's the case. If Elizabeth is morally responsible for killing George, then she had an alternate possibility of not killing George. If she was forced to kill George, then she isn't morally responsible for doing it. Alternate possibilities are often thought to be incompatible with determinism.

altruism – Actions that benefit others without an overriding concern for self-interest. Altruism does not require self-sacrifice but altruistic acts do require that one does not expect to attain benefits in proportion to (or greater than) those given to others.

ambiguity – Statements, phrases, or words that can have more than one meaning. For example, the word 'argument' can refer to an unpleasant exchange of words or as a series of statements meant to give us a reason to believe a conclusion. “Ambiguity” can be contrasted with “vagueness.”

amor fati – Latin for “love of fate.” To value everything that happens and see it as good. Suffering and death could seen as being for a greater good, or at least a positive attitude might help one benefit from one's own suffering. For example, Friedrich Nietzsche's aphorism, “what doesn't kill us makes us stronger” refers to the view that a positive attitude can help us benefit from our suffering.

amoral – Lacking an interest in morality. For example, an amoral person doesn't care about what's morally right or wrong, and a person acts amorally when she doesn't care about morality at that moment in time. Many people think that babies and nonhuman animals act amorally because they have no concept of right or wrong. “Amoral” can be contrasted with “nonmoral.”

amphibology – A synonym for “amphiboly.”

amphiboly – A fallacious argument that requires an ambiguity based on the grammar of a statement. For example, “men often marry women, but they aren't always ready for marriage.” In this case the word 'they' could refer to the men, the women, or both. An example of the ambigoly fallacy is the following argument—“If people feed dogs chocolate, then they will get hurt. You don't want to get hurt. Therefore, you shouldn't feed dogs chocolate.” In this case feeding dogs chocolate actually hurts dogs, not people. The argument requires us to falsely think that people get hurt by feeding dogs chocolate.
analogical reasoning – Reasoning using analogies that can be explicitly described as an “argument from analogy.”

analogy – (1) A comparison between two different things that draws similarities between two things. For example, punching and kicking people are both analogous in the sense that they are both generally wrong for the same reason (i.e. they are performed to hurt people). (2) An “argument from analogy.”

analytic – Analytic propositions or beliefs that are true because of their meaning. An example of an analytic proposition is “all bachelors are unmarried.” “Analytic” is the opposite of “synthetic.”

analytic philosophy – A domain of philosophy that's primarily concerned with justifying beliefs as much as possible with a great deal of clarity and precision. However, the issues analytic philosophers deal with generally involve more speculation and less certainty than the issues natural scientists tend to deal with. “Analytic philosophy” is often contrasted with “continental philosophy.”

anarchism – The view that we should eliminate states, governments, and/or political rulers.

anecdotal evidence – (1) To attempt to persuade people to agree to a conclusion based on the experiences of an individual or even many individuals. Anecdotal evidence is often a fallacious type of argumentation. For example, many individuals could have experiences of winning sports games while wearing a four-leaf clover, but that doesn't prove that four-leaf clovers actually give sports players luck. No fallacy is committed when the experiences of people are sufficient to give evidence for a causal relation and mere correlation can be ruled out. Fallacious appeals to anecdotal evidence could be considered to be a form of the “hasty generalization” fallacy. Also relevant is the “cum hoc ergo propter hoc” fallacy. (2) The experiences of a person that could be considered to be a reason to agree with some belief. For example, our experience of not getting cavities and brushing our teeth every day is at least superficial evidence that brushing our teeth could help us avoid getting cavities.

and/or – See “inclusive or.”

antecedent – (1) The first part or what happens first. (2) The first part of a conditional with the form “if a, then b.” (“a” is the antecedent). For example, consider the following conditional—“If it rains tomorrow, then we won't have to water the lawn.” In this case the antecedent is “it rains tomorrow.”

anti-realism – The view that some domain is nonfactual (not part of reality) other than perhaps how it relates to social construction or convention. For example, “moral anti-realists” think that there are no moral facts, but perhaps we can talk about moral truth insofar as some statements conform to a social contract. “Anti-realism” is often contrasted with “realism.”

antinomy – A real or apparent contradiction between laws or rational beliefs. For example, Immanuel Kant argues that time must have a beginning because infinite events can't happen in the past, but time can't have a beginning because that would imply that there was a moment before time began. “Antinomies” are sometimes equated with “paradoxes.”

antithesis – The opposition to a thesis, generally within a dialectical process. Objections are antitheses found in argumentative essays; and the flaws of a political system that lead to less freedom could be considered to be the antitheses found in a Hegelian dialectic.
anomaly – A phenomenon that can't yet be explained by science and could be taken to be evidence against a scientific theory. Anomalies are often explained sooner or later, but sometimes they can't be explained because our observations of the facts are simply incompatible with the theory we assume to be true. For example, Mercury didn't move around the Sun in the way we predicted based on Newton's theory of physics, but it did move in the way a superior theory predicted (Einstein's theory of physics).

anthropic principle – The view that the universe and observations of the universe must be compatible with the conscious beings that make the observations. For example, the laws of physics must be compatible with the existence of people or we can't exist in the first place. (If the universe was incompatible with our existence, then we wouldn't be here.)

anthropocentrism – The view that human beings are the center of the universe or the most important thing. For example, the view that we should have harmful experimentation using nonhuman animals when it saves human lives could be said to be anthropocentric.

anthropomorphism – To view nonhuman things as having human qualities or to present such things as if they had human qualities that they don't. For example, we might say that computers “figure out” how to do math problems, but computers don't actually think or figure things out.

appeal to authority – (1) An argument that gives evidence for a belief by referencing expert opinion. Appeals to authority are not fallacious as long as they actually appeal to the unanimous opinion of experts of the relevant kind. (2) A fallacious type of argument that appeals to the supposed expert opinion of others when the opinion referred to is controversial among the experts; or when the supposed expert that is appealed to is not an expert of the relevant kind.

appeal to consequences – A type of fallacy committed by arguments that conclude that something is true or false based on the effects the belief will have. For example, “We know it's true that every poor person can become rich because poor people who believe they can become rich are more likely to become rich.”

appeal to emotion – To attempt to persuade people that something is true by appealing to their pity, by causing fear, or by appealing to some other emotion. For example, someone could argue that war is immoral by appealing to our pity of wounded innocent children. The harm done to the children might be relevant to why war is wrong, but it is not sufficient to prove that war is always wrong.

appeal to force – A fallacious form of persuasion that is committed when coercion is used to get people to pretend to agree with a conclusion, or in order to suppress opposing viewpoints. The appeal to force can be subtly used in an academic setting when certain views are taboo and could harm a person's future employment opportunities. However, sometimes people also fear being punished for expressing their “heretical views.” For example, John Adams passed the Sedition Act, which imposed fines and jail penalties for anyone who spoke out against the government. Additionally, various heresies (taboo religious beliefs) have been punishable by death in various places and times.

appeal to ignorance – A fallacious argument that concludes something on the basis of what we don't know. For example, to claim that “we should agree that extraterrestrials don't exist because we can't yet prove they exist” is fallacious because there are other reasons we might expect extraterrestrials to exist,
such as the vastness of the universe.

appeal to nature – See “naturalistic fallacy.”

appeal to popularity – A fallacy committed by an argument that concludes something on the basis of popular opinion. The appeal to popularity is often persuasive because of a common bias people have in favor of popular opinions. Also known as the “bandwagon fallacy.”

appeal to probability – A fallacy committed by an argument that concludes that something will happen just because it might happen. For example, “It’s possible to make a profit by gambling. Therefore, I will eventually make a profit if I keep playing the slot machines.”

applied ethics – Ethical philosophy that's primarily concerned with determining what course of action is right or wrong given various moral issues, such as euthanasia, capital punishment, abortion, and same-sex marriage.

apperception – To have attention or to be aware of an object as being something other than oneself. See “empirical apperception” and “transcendental apperception” for more information.

arbitrary – Something said or done without a reason. For example, the initial words we use for our concepts are arbitrary. We could have called bananas ‘gordoes’ and there was no reason to prefer to call them 'bananas' instead. However, the meaning of words is not arbitrary after the definitions are justified by common usage.

argument – (1) To provide statements and evidence in an attempt to lead to the plausibility of a particular conclusion. For example, “punching people is generally wrong because hurting people is generally wrong” is an argument. (2) In mathematics and predicate logic, “argument” is sometimes a synonym for “operands.” (3) In ordinary language, “argument” often refers to a verbal battle, a hostile disagreement, or a discussion that concerns a disagreement.

argument by consensus – A synonym for “appeal to popularity.”

argument diagram – A visual representation of an argument that makes it clear how premises are used to support a conclusion. Argument diagrams generally have numbers written in circles, and each number is used to represent a statement. Consider the following argument—“(i) Socrates is a human. (ii) All humans are mammals. (iii) All mammals are mortal. (iv) Therefore, Socrates is mortal.” An example of an argument diagram that can be used to represent this argument is the following:
argument from analogy – An argument that uses an analogy. For example, we could argue that kicking and punching people are both generally wrong because they're both analogous—they both are generally wrong for the same reason (because they're both performed to hurt people and it's generally wrong to try to hurt people). Not all arguments using analogies are well-reasoned. See “weak analogy” for more information.

argument form – See “logical form.”

argument from absurdity – A synonym for “reductio ad absurdum.”

argument from fallacy – A synonym for “argumentum ad logicam.”

argument indicator – A term used to help people identify that an argument is being presented. Argument indicators are premise indicators or conclusion indicators. For example, 'because' is an argument indicator used to state a premise. See “argument” for more information.

argument map – A visual representation of an argument that makes it clear how premises are used to support a conclusion. Argument maps are a type of argument diagram, but the premises and conclusions are usually written in boxes. An example of an argument map is the following:
argument place – (1) In logic, it is the number of things that are predicated by a statement. For example, “Gxy” is a statement with two predicated things, so it has two argument places. (In this case “G” can stand for “attacks.” In that case “Gxy” would mean “x attacks y.”) (2) In mathematics, it's the number of things that are involved with an operation. For example, addition is an operation with two argument places. “2 + 3” has two arguments: “2” and “3.”

argument to the best explanation – An attempt to know what theory, hypothesis, or explanatory belief we should have by comparing various alternatives. The best explanation should be the one that's the most consistent with our observations (and perhaps exhibit other various theoretical virtues better than the alternatives as well). For example, it's more plausible that the light turns on at a neighbor's home because a person turned a light on than that a ghost turned the light on because we don't know that ghosts exist. See “theoretical virtues” for more information. The argument to the best explanation is a form of “abduction.”

argumentative strategies – The methods we use to form a conclusion from premises. For example, the “argument from absurdity” and “argument from analogy” are argumentative strategies.

argumentum ad baculum – Latin for “argument from the stick.” See “appeal to force.”

argumentum ad consequentiam – Latin for “argument to consequences.” See “appeal to consequences.”

argumentum ad ignorantiam – Latin for “argument from ignorance.” See “appeal to ignorance.”

argumentum ad logicam – Latin for “argument to logic.” A type of fallacy committed by an argument that claims that a conclusion of an argument is false or unjustified just because the argument given in support of the conclusion is fallacious. A conclusion can be true and justified even if people give fallacious arguments for it. For example, Tom could argue that “the Earth exists because Tina is evil.”
This argument is clearly fallacious, but the conclusion (that the Earth exists) is both true and justified.

*argumentum ad naturam* – Latin for “argument from nature.” See “naturalistic fallacy.”

**aristocracy** – A political system defined by the exclusive power to rule by an elite group of individuals.

**Aristotelian ethics** – An ethical system primarily concerned with virtue developed by Aristotle. Aristotle believed that (a) people have a proper function as political rational animals to help each other and use their ability to reason; (b) happiness is the greatest good worth achieving (c) virtues are generally between two extremes; and (d) virtuous people have character traits that cause them to enjoy doing what's virtuous and to do what's good thoughtlessly. For example, courage is virtuous because it is neither cowardly nor foolhardy, and courageous people will be willing to risk their life whenever they should do so without a second thought.

**arité** – Greek for “virtue” or “excellence.”

**arity** – (1) In logic, it refers to the number of things that are predicated. The statement “Fx” has an arity of one because there's only one thing being predicated. For example, “F” can stand for “is tall” and in that case “Fx” means “x is tall.” The statement “Gxy” has an arity of two because there's two things being predicated. For example, “G” could stand for “loves” and in that case “Fxy” means “x loves y.” (2) In mathematics, arity refers to the number of things that are part of an operation. For example, addition requires two numbers. “1+2” is an operation with the following two variables: “1” and “2.”

**assertoric** – Refers to the property of a domain that people make assertions about. Some philosophers think that moral judgments, such as “stealing is wrong,” are assertoric rather than noncognitive (neither true nor false). Assertoric statements are meant to be true or false depending on whether they accurately correspond to reality or relate properly to facts.

**association** – A rule of replacement that takes two forms: (a) “a and/or (b and/or c)” means the same thing as “(a and/or b) and/or c.” (b) “a and (b and c)” means the same thing as “(a and b) and c.” (“a,” “b,” and “c” stand for any three propositions.) The parentheses are used to group certain statements together. For example, “dogs are mammals, or they're fish or reptiles” means the same thing as “dogs are mammals or fish, or they're reptiles.” The rule of association says that we can replace either of these statements of our argument with the other precisely because they mean the same thing.

**association fallacy** – A type of fallacy committed by an argument with an unwarranted assumption that two things share a negative quality just because of some irrelevant association. For example, we could argue that eating food is immoral just because Stalin ate food. Also see the “halo effect” and “ad hominem” for more information.

**atheism** – It generally refers to the view that gods don't exist. However, it is often divided into the categories of “hard atheism” and “soft atheism.”

**atom** – (1) The smallest unit of matter that is irreducible and indestructible. (2) In modern science, 'atom' refers to a type of particle. Atoms are made with protons and neutrons. The number of protons used to make an atom determines what kind of chemical element it is. For example, hydrogen is only made of a single proton.
**attribute** – (1) An element or aspect. (2) According to Baruch Spinoza, an attribute is what we perceive of as the essence (or defining characteristic) of a what Descartes considered to be a substance, such as extension (for physicality) and thought (for the psychological part of reality). However, Spinoza rejected that mind and matter are two different substances.

**autonomy** – To be capable of acting freely based on one's own judgments.

**authentic** – (1) To be authentic is to act true to one's nature, to accept one's innate freedom, and to refuse to let others make decisions (or think) for us. (2) In Martin Heidegger's work, the term “for oneself” is often translated as “authentic.”

**auxiliary hypothesis** – The background assumptions we have during observation and experimentation. It is difficult to know when a scientific theory or hypothesis should be rejected by conflicting evidence because the evidence might actually only conflict with an auxiliary hypothesis. For this reason scientists continue to use the same theories and hypotheses until a better one is developed, and conflicting evidence is known as an “anomaly.” For example, a person could think that the belief that a drug is effective at curing a disease is proven wrong when it doesn't cure someone's disease, but the drug might have only been ineffective when the person who takes it doesn't drink alcohol. In this case the auxiliary hypothesis was that the drug would be effective whether or not people drink alcohol.

**axiology** – The philosophical study of values.

**axiom** – A starting assumption prior to argument or debate. Axioms should be rationally defensible and some might be self-evident. For example, the law of non-contradiction is an axiom. If we don't assume that things can't be true and false at the same time, then reasoning might not even be possible.

**background assumptions** – Beliefs that are difficult to discuss or question because they are part of how a person understands the world and they are taken for granted. Background assumptions are often unstated assumptions in arguments similar to how many people skip steps when doing math problems.

**bad company fallacy** – A synonym for “association fallacy.”

**bad faith** – To act or believe something inauthentically. To deny one's innate freedom, or try to let other people make decisions (or think) for us.

**bad reasons fallacy** – A synonym for “argumentum ad logicam.”

**base rate fallacy** – A fallacy committed when an argument requires a statistical error based on information about a state of affairs. The most common version of the base rate fallacy is based on the assumption that a test with a high probability of success indicates that the test is accurate. For example, we might assume that a test used to detect a disease that's 99% accurate will correctly detect that more people have a disease than it will falsely claim have the disease. However, if only 0.1% of the population has the disease, then it will falsely detect around ten times as many people as having the disease than actually have it. See “base rate information” and “false positive” for more information.

**base rate information** – Information about a state of affairs that is used for diagnosis or statistical
analysis. For example, we might find out that 70% of all people with a cough and runny nose have a cold. A doctor is likely to suspect a patient with a cough and runny nose has a cold in consideration of how common colds are. “Base rate information” can be contrasted with “generic information” concerning the frequency of a state of affairs, such as how common a certain disease is.

**basic belief** – Foundational beliefs that can be known without being justified from an argument (or argument-like reasoning). For example, axioms of logic, such as “everything is identical with itself,” are plausibly basic beliefs. “Basic beliefs” are part of “foundationalism,” and they don't exist if “coherentism” is true.

**basic desire** – Something we yearn for or value for its own sake rather than as a means to an end. Pleasure and pain-avoidance are plausibly basic desires. It is possible that we desire food to attain pleasure and avoid pain rather than as a basic desire. “Basic desires” are similar to (and perhaps identical with) “final ends.”

**bandwagon fallacy** – A synonym for “appeal to popularity.”

**Bayesian epistemology** – A view of knowledge and justification based on probability. It features a formal apparatus for induction based on deduction and probability calculus. The formal apparatus is used to better understand probabilistic coherence, probabilistic confirmation, and probabilistic inference.

**bedeutung** – German for “reference.”

**begging the question** – A logical fallacy that is used when an argument uses a controversial premise to prove a conclusion, and the controversial premise trivially implies that the conclusion is true. For example, “the death penalty is murder, so the death penalty is wrong” requires a controversial premise (that the death penalty is murder) to prove something else controversial (that the death penalty is wrong). Also see “circular reasoning.”

**being** – (1) Existence, reality, or the ultimate part of reality. Being could be said to be “what is.” The philosophical study of being is “ontology.” (2) “A being” is something unified in space and time that has a mind of its own. For example, people are beings. It is plausible that birds and mammals are also beings in this sense.

**belief bias** – A cognitive bias that's defined by the tendency to think that an argument is reasonable just because we think the conclusion is likely true. In reality arguments can be offensively fallacious, even if the conclusion is true. For example, “the sky is blue, so dogs are mammals” has a true conclusion, but it's offensively fallacious.

**biased sample** – (1) A sample that is not representative of the group it is meant to represent for the purposes of a study. For example, a poll taken in an area known to mainly vote for Republican politicians that indicates that the Republican presidential candidate is popular with the population at large. It might be the case that the Republican candidate is not the most popular one when all other voters are accounted for, and the sample is so biased that we can't use it to have any idea about whether or not the Republican candidate is truly popular with the population at large. Also see “selective evidence” and “hasty generalization” for more information. (2) A fallacy committed by an argument
based on a biased sample. For example, to conclude that a Republican presidential candidate is popular with the population at large based on a poll taken in a pro-Republican area.

**biconditional** – A synonym for “material equivalence.”

**bifurcation fallacy** – A synonym for “false dilemma.”

**bioethics** – Ethics related to biology. Bioethics is often related to scientific research and technology that has an effect on biological organisms. For example, whether or not cloning human beings is immoral.

**bivalent logic** – Logic with two truth values: true and false. See “the principle of bivalence” for more information.

**black or white fallacy** – A synonym for “false dilemma.”

**blameworthy** – Actions by morally responsible people that fail to meet moral requirements. For example, a morally responsible person who commits murder is blameworthy for that action. See “impermissible” and “responsibility” for more information. “Blameworthy” acts are often contrasted with “praiseworthy” ones.

**booby trap** – (1) A logical booby trap is a peculiarity of language that makes it likely for people to become confused or to jump to the wrong conclusion. For example, an ambiguous word or statement could make it likely for people to equivocate words in a fallacious way. Some people think all forms of *debate are attempts at manipulative persuasion*, but there are rational and respectful forms of debate. See “equivocation” for more information. (2) In ordinary language, a booby trap is a hidden mechanism used to cause harm once it is triggered by a certain action or movement. For example, Indiana Jones lifted an artifact from a platform that caused the room to collapse.

**borderline case** – A state of affairs that can be properly described by a vague term, but it is difficult to say how the vague term can be properly applied. For example, it might not be clear whether or not it's unhealthy to eat a small bag of potato chips. Even so, we know that eating one potato chip is not unhealthy, and eating a thousand potato chips is unhealthy. See “vague” for more information.

**brute facts** – (1) Facts that exist that have no explanation. The reason brute facts lack explanations isn't merely because we are incapable of explaining them. It's because there is literally no explanation for us to find out about. If brute facts exist, then we should reject the “principle of sufficient reason.” (2) According to G.E.M. Anscombe, brute facts are the facts that make a non-brute fact true given the assumption that all other things are equal. For example, a person makes a promise given the brute facts of that person saying they will do something. This is only true if all else is equal and not in unusual circumstances. Perhaps a person doesn't make a promise when joking around. This sense of “brute facts” is often contrasted with “institutional facts.”

**burden of proof** – (1) The requirement for a position to be justified during a debate. The burden of proof exists for a claim when the claim will be likely rejected by people until the claim is justified. The burden of proof can shift during a debate. For example, a good argument against a belief would shift the burden of proof onto anyone who wants to defend that belief. (2) The rational burden of proof is the
property of a position that people should rationally reject unless at least minimal evidence can be given for it. For example, people have a rational burden of proof to have evidence that faeries exist, and we should reject the existence of faeries until that burden of proof is met.

capitalism – A type of economy with limited government regulation (a “free market”) and where the means of production (factories and natural resources) are privatized. Key features of capitalism includes competition between people who sell goods and services, the profit motive (which is expected to motivate people to compete), and companies.

care ethics – An ethical perspective that focuses on the dependence and importance of personal relationships, and the primary importance of caring for others. Care ethics tends to emphasize the special obligations we have towards one another because of our relationships, such as the obligation of parents to keep their children healthy. Care ethics is often understood to be part of the “moral sentimentalist” and “feminist” traditions, and it's often believed to be incompatible with utilitarianism and Kant's categorical imperative.

case-based reasoning – Reasoning involving the consideration of similar situations or things. For example, a doctor could consider the symptoms and cause of illness of various patients that were observed in the past in order to decide what is likely the cause of an illness of another patient who has certain symptoms. Case-based reasoning uses the following four steps for computer models: (a) Retrieve – consider similar cases. (b) Reuse – predict how the similar cases relate to the current case. (c) Revise – check to see if the similar cases relate to the current case as was predicted and make a new prediction if necessary. (d) Retain – once a prediction seems to be successful, continue to rely on that prediction until revision is necessary. Case-based reasoning is similar to “analogical reasoning.”

categorical – (1) Overriding, without exceptions, and absolute. For example, categorical imperatives. (2) Involving categories or types of things. For example, categorical syllogisms.

categorical imperative – An imperative is a command or requirement. Categorical imperatives are overriding commands or requirements that don't depend on our desires, and are rational even if we'd rather do something else. For example, it is plausible that we have a categorical imperative not to run around punching everyone in the face just for entertainment. The mere fact that someone might want to do it does not make it morally acceptable. Categorical imperatives are often contrasted with “hypothetical imperatives.” People often speak of “the categorical imperative” to refer to “Kant's Categorical Imperative.”

categorical proposition – A proposition concerning categories. For example, “all men are mortal” concerns two categories: Men and mortality.

categorical syllogism – A syllogism that consists of categorical propositions (propositions that concern various categories or “kinds of things”). For example, “All animals are mortal. All humans are animals. Therefore, all humans are mortal.”

category – (1) A grouping or set of things that share a characteristic. For example, animals, minerals, and persons. (2) The most general concepts. For example, space, time, and causation.

category mistake – A confusion between two categories that leads to an error in reasoning. For
example, we might say that an essay tells us the types of biases people suffer from, but that uses a metaphor—essays cannot literally tell us anything. They aren't the kind of thing to say things, so it would be a category mistake to believe essays literally say things.

causal determinism – See “determinism.”

causal theory of reference – The view that names of things (e.g. 'water') refer to the things because of how people referred to the object in history. It is generally thought by supporters that reference requires “reference fixing” (e.g. when someone decides what to call it) and “reference borrowing” (e.g. the name is passed on by other people who talk about it). For example, people at some point called the stuff they have to drink to stay hydrated 'water' and the fact that people kept calling it 'water' assured us that we use that word to refer to the same stuff as people did during the first time someone decided to call it something.

causal theory of knowledge – The view that the truth of statements cause our knowledge of the statements' truth, or that facts cause knowledge of facts. For example, a cat that lays on a mat can cause our belief that the cat is on the mat insofar as it being there causes us to see it. If it's completely impossible to interact with an entity and the entity makes absolutely no difference to us whatsoever, then we might wonder if the entity exists at all.

causation – One thing that makes something else happen. For example, a red rolling billiard ball that hits a blue billiard ball and makes the blue one move. Causation involves necessary connections and laws of nature. We can predict when one event will cause another event based on understanding the state of affairs that exist and the laws of nature.

certainty – See “epistemic certainty” or “psychological certainty.”

ceteris paribus – Latin for “with all else being equal” or when considered in isolation. For example, ceteris paribus, killing people is wrong. However, there might be overriding factors that justify killing others, such as when it's necessary for survival.

character – (1) Persisting traits that are resistant to change and influence a person's decision-making. A person's character can exhibit various character traits, such as virtues (such as courage) and vices (such as addiction). (2) The domain of character traits, such as virtues and vices. Virtues and vices could be used to describe the actual decisions and actions a person tends to make rather than persisting properties that are resistant to change.

character ethics – A synonym for “virtue ethics.”

charity – (1) The virtue in a disagreement or debate to describe other people's beliefs and arguments accurately rather than to misrepresent them as being less reasonable than they really are. If we are not charitable in this way, then we will create a fallacious “straw man” argument. (2) The virtue concerned with helping others who are in need. For example, giving money to the poor is often charitable in this sense. (3) An organization or institution that exists to try to help others who are in need. For example, the Red Cross or a soup kitchen.

cherry picking – Finding or using evidence that supports a position while simultaneously ignoring any
potential counter-evidence against the position. See “one-sidedness” for more information.

circular argument – An argument with a premise that's identical to the conclusion. For example, “All dogs are animals because all dogs are animals.” The logical form of a circular argument is “a; therefore a.” Circular arguments are similar to the “begging the question” fallacy. Also see “circular reasoning.”

circular reasoning – (1) Reasoning involving a set of mutually supporting beliefs that are not justified by anything other than the set of beliefs. A simple form of circular reasoning is the following—A is justified because B is justified; B is justified because C is justified; and C is justified because A is justified. For example, “we should agree that stealing is wrong because it should be illegal; we should agree that stealing should be illegal because we shouldn't want people stealing from us; and we shouldn't want people stealing from us because it's wrong.” (2) A “circular argument.”

class conflict – The power struggle between social classes. The wealthy are often thought to fight to maintain their power and privilege and the working class is thought to fight to attain a greater share of power. For example, the working class could fight for a higher minimum wage, and the wealthy could fight to keep receiving corporate welfare. Karl Marx thought that class conflict also happens at the level of ideology—the wealthy tries to convince everyone else that those with wealth deserve to keep their wealth and maintain their privilege, but other people resist this ideology and offer alternatives.

class warfare – A synonym for “class conflict.”

cogent argument – An inductively strong argument with true premises. For example, “All objects that were dropped near the surface of the Earth in the past fell to the ground. Therefore, objects that are dropped near the surface of the Earth tomorrow will will probably fall to the ground.” See “strong argument” for more information.

cognition – A mental process. For example “inferential reasoning” is a form of cognition.

cognitive bias – A psychological trait that leads to errors in reasoning. For example, the “confirmation bias.”

cognitivism – A field concerning judgments that are true or false. For example, moral cognitivism states that moral judgments can be true or false. “Cognitivism” is often contrasted with “non-cognitivism.”

coherence – (1) The degree of consistency something has. For example, the beliefs “all men are mortal” and “Socrates is a man” are consistent. Contradictory beliefs are incoherent or “inconsistent.” (2) In ordinary language, “coherence” often refers to the degree of clarity and sense a person makes. Someone who is incoherent might say nonsense.

coherence theories of epistemology – See “coherentism.”

coherentism – The view that there are no foundational beliefs, but that some beliefs can be mutually supported by other beliefs. It is often claimed that an assumption is justified through coherence if it is useful as part of an explanation. Observation itself is meaningless without assumptions, and observation appears to confirm our assumptions as long as our observations are consistent with them.
For example, my assumption that a table exists can be confirmed by touching the table, and my experiences involved with touching the table confirms my assumption that the table exists. Some philosophers argue that coherentism should be rejected because it legitimizes “circular reasoning,” which we ordinarily recognize as being a fallacious form of justification. However, coherentists claim that circular reasoning is not vicious as long as enough beliefs are mutually supporting.

**common sense** – (1) Beliefs or assumptions we are more certain about than the premises used by skeptical arguments against them, but it's difficult or impossible to fully understand how we can be so certain about them. For example, G. E. Moore said he is absolutely certain that he knows that something existed before he was born and that something will still exist after he is dead. (2) Assumptions we hold without significant evidence when rejecting the assumptions does not appear to be a reasonable option. For example, we accept that inductive reasoning is effective even though we can't prove it without circular reasoning. Rejecting inductive reasoning would lead to absurdity (and it would perhaps imply that we should reject all natural science altogether). (3) Beliefs or assumptions people tend to have prior to philosophical study. (4) According to Aristotle, common sense are the internal senses that are used to judge and unite experiences caused by sense perception (the five senses: sight, sound, touch, taste, and smell).

**communism** – (1) A type of economy where the means of production (factories and natural resources) are publicly owned rather than privatized, and where there are no social classes (i.e. there is no working class or upper class). The difference between communism and socialism is not entirely clear and the terms are often used as synonyms. (2) In ordinary language, “communism” often refers to a type of totalitarian political system and economy where the government owns all the businesses and controls the means of production.

**commutation** – A rule of replacement that states that “a and b” and “b and a” both mean the same thing. (“a” and “b” stand for any two propositions.) For example, we know that “all dogs are animals and all cats are animals” means the same thing as “all cats are animals and all dogs are animals.” If we use one of these statements in an argument, then we can replace it with the other statement.

**commutation of conditionals** – A fallacy committed by arguments that have the logical form “if a, then b; therefore if b, then a.” (“a” and “b” stand for any two propositions.) For example, “If all snakes are reptiles, then all snakes are animals. Therefore, if all snakes are animals, then all snakes are reptiles.”

**commutative** – To be able to switch symbols without a loss of meaning. “a and b” has the same meaning as “b and a.” For example, “dogs are mammals and lizards are reptiles” has the same meaning as “lizards are reptiles and dogs are mammals.”

**compatibilism** – The view that determinism and free will are compatible. Compatibilists often believe we actually have free will, and their conception of free will is compatible with determinism. For example, compatibilists could say that we are free as long as we can do whatever we choose to do. A person can be free to choose to spend the next ten minutes eating food or taking a shower; and she is likely able to be able to do either of those things assuming she chooses to. “Compatibilism” can be contrasted with “libertarian free will.”

**complete theory** – A theory is complete if and only if it can answer all relevant questions. For
example, a normative theory of ethics is complete if it can determine whether any action is right or wrong.

**completeness** – See “semantic completeness,” “syntactic completeness,” “expressive completeness,” or “complete theory.”

**complex question** – A synonym for “loaded question.”

**composition** – (1) In logic, the term 'composition' refers to the “fallacy of composition.” (2) When a creditor agrees to accept a partial payment for a debt. (3) The arrangement of elements found in a work of art. (4) Producing a literary work, such as a text or speech.

**compound proposition** – A proposition that can be broken into two or more propositions. For example, “Socrates is a man and he is mortal” can be broken into the following two sentences: (a) Socrates is a man. (b) Socrates is mortal. “Compound propositions” can be contrasted to “non-compound propositions.”

**compound sentence** – See “compound proposition.”

**comprehensiveness** – The scope of a theory or explanation. A theory is more comprehensive than another if it covers a greater scope. Theories are more comprehensive if they are capable of explaining a greater number of observations or more types of phenomena. Consider the view that (a) it's generally wrong to punch people and (b) the view that it's generally wrong to hurt people. The view that it's generally wrong to hurt people is more comprehensive because it can explain why many more actions are wrong than the view that it's generally wrong to punch people.

**conceptual analysis** – A systematic study of concepts in an attempt to improve our understanding of them (perhaps to help us avoid confusion during debates). Conceptual analysis involves giving definitions, and giving necessary and sufficient conditions for using a term. Conceptual analysis could be revisionary by defining concepts in new ways or it can define concepts in ways that are almost entirely based on how people use language. For example, to say that killing people is generally the right thing to do would be revisionary to the point of absurdity because it would require a new definition for “right thing to do” that has little to nothing to do with how people use language. Even so, how people actually use language can be unstable, vague, or ambiguous; so revisionary definitions can be necessary.

**conceptual framework** – A systematic understanding of a field (such as morality) and all related concepts (such as moral duties, values, and virtues) that might not accurately represent reality, but it could exhibit various theoretical virtues. Conceptual frameworks provide a certain understanding of various concepts involved, but alternative ways of understanding the concepts could also be possible (or even superior).

**conclusion** – A statement that is meant to be proven or made plausible in consideration of other statements. For example, consider the following argument—“All men are mortal. Socrates is a man. Therefore, Socrates is mortal.” In this case “Socrates is mortal” is the conclusion. “Conclusions” are often contrasted with “premises.”
**conclusion indicator** – A term used to help people identify that an conclusion is being stated. For example, “therefore” or “thus.” See “conclusion” for more information.

**concretism** – The view that possible words exist just like the actual world, and that everyone from a possible world calls their own world the “actual world.” Concretism is an attempt to explain what it means to say that something is necessary or possible—something is necessary insofar as it's true in every possible world, and something is possible insofar as it is true in at least one possible world. It is necessary that oxygen is O₂ insofar as it's true that oxygen is O₂ in every possible world, and it's possible that a person can jump over a small rock insofar as it's true in at least one possible world. “Concretism” can be contrasted with “abstractism.” See “modality” and “modal realism” for more information.

**conditional** – (1) Something that happens or could happen depending on other facts. For example, making enough money for a living is often conditional on finding full time employment. (2) A “material conditional.”

**conditional proof** – A strategy used in natural deduction used to prove an argument form is logically valid that has an if/then proposition as a conclusion. We know the argument form is valid if we can assume the premises are true and the first part of the conclusion is true in order to deduce the second part of the conclusion. For example, consider the argument “If A, then B. If B, then C. Therefore, if A, then C.” We can use the following conditional proof to know this argument is valid:

1. If we can assume the first part of the conclusion (“A”) and the premises to prove the second part of the conclusion (“C”), then the argument is valid.
2. We know “if A, then B” is true and “A” is true, so we know “B” is true. (See “modus ponens.”)
3. We know “if B, then C” is true and “B” is true, so we know “C” is true. (See “modus ponens.”)
4. We have now deduced that the second part of the conclusion is true, so the argument form is logically valid.

**conditionalization** – Concerning how we ought to update our beliefs and degrees of confidence when we attain new information. For example, a person who believes all swans are white ought to reject that belief once she sees a black swan.

**confirmation** – Strong evidence supporting a hypothesis or theory. For example, the fact that all known species of birds are warm-blooded is confirmation of the hypotheses that all birds are warm-blooded.

**confirmation bias** – One of the most important forms of cognitive bias that is evident when people take supporting evidence of their beliefs too seriously while simultaneously ignoring or marginalizing the importance of evidence against their beliefs. For example, a person with the confirmation bias could take her experiences of white swans as evidence that all swans are white but ignore the fact that some people have seen black swans.

**conjunct** – The first or second part of a conjunction. The logical form of a conjunction is “a and b.” Both “a” and “b” are conjuncts. For example, the conjunction “all dogs are mammals and all mammals are animals” has two conjuncts: (a) all dogs are mammals and (b) all mammals are animals.
conjunction – (1) A proposition that says both of two things are true. The logical form of conjunctions is “a and b.” For example, “all doctors are humans and all humans are capable of reasoning.” There are two common symbols used for conjunction in formal logic: “&” and “∧.” An example of a statement using one of these symbols is “A ∧ B.” (2) A rule of inference that states that we can use “a” and “b” as premises to validly conclude “a and b.” (“a” and “b” stand for any two propositions.) For example, “Birds are animals. The Sun will rise tomorrow. Therefore, birds are animals and the Sun will rise tomorrow.”

consequent – (1) The second part of a conditional with the form “if a, then b.” (“b” is the consequent.) For example, consider the conditional statement “if all dogs are mammals, then all dogs are animals.” In this case the consequent is “all dogs are animals.” (2) A logical implication of various beliefs. For example, a person who believes that “if all dogs are mammals, then all dogs are animals” and “all dogs are mammals” can validly infer the consequent, “all dogs are animals.” (3) The result of an event. For example, a person who turns the light switch downward consequently turned the light off.

consequentialism – Moral theories that state that the consequences of actions determine which actions are right or wrong. For example, if we know what has intrinsic value, then we can compare each possible course of action and see which course of action will maximize intrinsic goodness (i.e. lead to the most positive value and least negative value). Consequentialist philosophers would argue that such an action would be the “most right” and actions that depart from the ideal will be “more wrong” to whatever extent they fail to do what is best. Sometimes “utilitarianism” is used as a synonym for “consequentialism.”

consistency – The property of lacking contradictions. To be logically consistent is to have beliefs that could all be true at the same time. For example, “all fish are animals” and “all mammals are animals” are both logically consistent. However, “all fish are animals” and “goldfish are robots” is inconsistent. We can compare “consistent” beliefs with “contradictions.”

consistent logical system – A logical system with axioms and rules of inference that can't possibly be used to prove contradictory statements from true premises. See “formal logic,” “axioms,” and “rules of inference” for more information.

constant – See “logical constant” or “predicate constant.”

continuant – (1) A persisting thing. For example, we often think people persist through time and continue to exist from one moment to the next. (2) A persisting thing that “endures.” For example, people could persist through time and exist in their entirety at every moment despite going through many changes.

constructionism – See “constructivism.”

constructive dilemma – A rule of inference that states that we can use the premises “a and/or b,” “if a, then c,” and “if b, then d” to validly conclude “c and/or d.” (“a”, “b,” and “c” stand for any three propositions.) For example, “Either all dogs are mammals and/or all dogs are lizards. If all dogs are mammals, then all dogs are animals. If all dogs are lizards, then all dogs are reptiles. Therefore, all dogs are animals and/or reptiles.”
constructivism  – (1) “Metaethical constructivism” is the view that morality is based on convention or agreement. Metaethical constructivism could claim that morality is based on our instinctual reactions or on a social contract. See “ideal observer theory” for more information. (2) The view that something is created through human interaction, agreement, or a common understanding. For example, the game “chess” and the presidency of the United States are constructed.

continental philosophy  – A philosophical domain that often requires less precision and clarity in order to allow for a discussion of major issues. Continental philosophy is often a continuation of ancient philosophy involving highly abstract issues (such as the nature of “being”) and issues that directly affect our lives. “Continental philosophy” is often contrasted with “analytic philosophy.”

continuum fallacy  – A fallacy that is committed by an argument that appeals to the vagueness of a term to unreasonably conclude something (usually based on the fact that we don't know where to draw the line between two things). For example, we don't know where to draw the line concerning how many hairs must be on a person's head before that person is no longer bald, but we would commit the continuum fallacy to conclude from that fact that no one is bald. See “vagueness” for more information.

contingent truth  – Propositions that are true based on some sort of dependence that “could have been otherwise.” Contingent statements are possible, but they are not necessary. For example, the fact that Socrates had a pug nose is a contingent truth. See “physical contingence,” “metaphysical contingence,” and “logical contingence.”

contingence  – The property of being possible but not necessary. There is a sense in which contingent things “could have been otherwise.” Aristotle's concept of an “accidental characteristic” refers to contingent characteristics. See “physical contingence,” “metaphysical contingence,” and “logical contingence.”

Contradiction  – (1) When two propositions cannot both be true due to their logical form. “Socrates was a man” and “Socrates was not a man” are two statements that can't both be true because the logical form is “a” and “not-a.” (“a” is any proposition.) (2) In categorical logic, contradiction is a process of negating a categorical statement and expressing it as a different categorical form. For example, “all men are mortal” can be contradicted as “some men are not mortal.”

contradictory  – (1) In categorical logic, a contradictory is the negation of a categorical statement expressed in a different categorical form. For example, “no men are immortal” is the contradictory of “some men are immortal.” (2) When two propositions form a contradiction. For example, it's contradictory to say, “Exactly four people exist” and “only two people exist.”

contraposition  – (1) To switch the terms of a categorical statement and negate them both. There are two valid types of categorical contraposition: (a) “All a are b” means the same thing as “all non-b are non-a.” (b) “Some a are not b” means the same thing as “some non-b are not non-a.” For example, the following argument is valid—“Some snakes are not mammals. Therefore, some non-mammals are not non-snakes.” (2) To infer a contrapositive from a categorical proposition. See “contrapositive” for more information. (3) In modern logic, it is also known as “transposition.”

contrapositive  – A categorical proposition is the contrapositive of another categorical proposition when the terms are negated and switched. For example, the contrapositive of “all mammals are
animals” is “All non-animals are non-mammals.” It is valid to infer the contrapositive of two different types of categorical propositions because they both mean the same thing: (a) “All a are b” means the same thing as “all non-b are non-a.” (b) “Some a are not b” means the same thing as “some non-b are not non-a.” For example, “some people are not doctors” means the same thing as “some non-doctors are not non-people.”

**contrary propositions** – Propositions that are mutually exclusive. For example, “Socrates is a man” and “Socrates is a dog” are contrary propositions. (Both statements refer to the historical philosopher.)

**convention** – What is true based on agreement or a common understanding. For example, it's a convention that people drive on the right side of the road in the United States (on two way roads), so it would be generally wrong to drive on the left side of the road in the United States.

**converse** – A categorical proposition or if/then statement with the two parts switched. The converse of “all a are b” is “all b are a.” (“a” and “b” are any two terms.) The converse of “if c, then d” is “if d, then c.” (“c” and “d” are any two propositions.) For example, the converse of “if all fish are animals, then all fish are organisms” is “if all fish are organisms, then all fish are animals.” It is valid to infer the converse of any categorical statement with the form “no a are b” or “some a are b.” See “conversion” for more information.

**conversion** – To switch the terms of a categorical statement. There are two valid types of conversion: (a) “No a are b” means the same thing as “no b are a.” (b) “Some a are b” means the same thing as “some b are a.” For example, the following is a valid argument—“No birds are dogs. Therefore, no dogs are birds.”

**corpuscles** – Small units of matter of various shapes and with various physical properties that interact with one another.

**correlation** – When two events or characteristics are found together. For example, it's a correlation that not drinking water and thirsty people are found together. “Correlation” can be contrasted with “causation.”

**correspondence theory of truth** – The view that true propositions correspond or relate properly to facts (or to reality). Correspondence theories of truth are compatible with “factual truths” and various forms of “realism.” The “correspondence theory of truth” is often contrasted with the “deflationary theory of truth.”

**corrigible** – Propositions or beliefs that can be improved or corrected by new information.

**counter evidence** – Evidence against a belief.

**counterargument** – An objection to an objection. An argument used to refute, disprove, or oppose an objection. For example, someone could argue against the belief that hurting people is always wrong by saying, “Hurting people in self-defense is never wrong, so it can't always be wrong to hurt people.” Someone else can respond to that objection by giving a counterargument and saying, “Hurting people in self-defense is wrong when it involves excessive force, such as when we kill someone just for kicking us.”
counterexample  – (1) An object or state of affairs that disproves a belief. For example, a white raven disproves the belief that “all ravens are black.” (2) An argument meant to prove another argument to be logically invalid by using the same argument form as the other argument, but the counterargument must have obviously true premises and an obviously false conclusion. Consider the invalid argument, “If dogs are lizards, then dogs are reptiles. Dogs are not lizards. Therefore, dogs are not reptiles.” A counterexample would be, “If dogs are reptiles, then dogs are animals. Dogs are not reptiles. Therefore, dogs are not animals.”

counterfactual  – Conditional statements about what would be the case if something else wasn't the case (that is actually the case). For example, “If Socrates was not a mortal, then Socrates was not a human.” Socrates was a mortal, so the counterfactual requires us to imagine what would have been the case if things were different.

counterintuitive  – Something that conflicts with what we think we know for some reason. For example, it would be counterintuitive to find out that other people don't have mental activity. What we find counterintuitive is often taken to be a reason for thinking something is false, but sometimes what we initially find to be counterintuitive is proven to be true. For example, people find it (at least mildly) counterintuitive to think that large objects fall at the same speed as small ones, but it's been proven to be true.

credence  – A subjective degree of confidence concerning the odds we believe that something could be true. For example, it would seem irrational to be highly confident that the law of gravity will no longer exist tomorrow. See “psychological certainty.”

credence function  – A comparison between the actual state of the world and the credence (subjective degree of confidence) a person has of the world being that way. Ideally people will have a strong credence towards factual statements. For example, people should be very confident that more than five people exist considering that society couldn't function without thousands of people existing.

criteria  – A standard used for making distinctions. For example, empiricists think the only relevant criteria that determines if something is a good justification is that it's based appropriately on empirical evidence (observation).

critical reasoning  – A synonym for “critical thinking.”

critical thinking  – An understanding of argument analysis and fallacies. It is often equated with “informal logic,” but any qualities that lead to an increased understanding of rationality and an increased ability to be reasonable could be involved.

criticism  – (1) An argument that is meant to persuade us to reject a belief of another argument. See “objection.” (2) Disparaging remarks, fault-finding, or judging something as falling short of certain requirements or standards.

cum hoc ergo propter hoc  – Latin for “with this, therefore because of this.” A logical fallacy committed when an argument concludes that something causes something else to happen due to a correlation. For example, the fact that a person takes a sugar pill before recovering from an illness
doesn't prove that she recovered from the sugar pill. She might have recovered for some other reason. This fallacy is a version of the “false cause” fallacy.

**cultural evolution** – A synonym for “sociocultural evolution.”

**cultural relativism** – (1) The view that moral statements are true because we agree on their truth (or merely because we believe they are true). Rape and murder would be considered wrong for a society if that society agrees that they are wrong, but might be considered to be right in another culture. Cultural relativism refers to the view that moral statements are true because a culture agrees with them, but other forms of moral relativism could be individualistic—what's right and wrong could depend on the individual. One form of relativism is the view that morality is determined by a “social contract.” Relativism should be contrasted with the view that an action could be either right or wrong depending on the context. (2) The view that the moral beliefs of various cultures differ. What one culture says is right or wrong is often different from what another culture says is right and wrong.

**cynicism** – (1) The practice of a philosophical group known as the *cynics*. The cynics were skeptical of argumentation and theorizing, and they focused on becoming virtuous, which they generally didn’t think required very much argumentation or theorizing. Cynics generally focused on being happy, free from suffering, and living in accordance with nature. The cynics were known for disregarding cultural taboos and believing that taboos are irrelevant to being virtuous. (2) It often refers to a pessimistic attitude. Cynicism can be characterized by mistrust towards people and the expectation that people will misbehave. (3) A skeptical attitude characterized by criticism towards various beliefs and arguments.

**Das Man** – German for “they self” and often translated as “the they” or “the one.” Martin Heidegger uses this term to refer to the social element of human beings—that we act for others, and that our thoughts are based on those of others. For example, we tell our children “one shares toys with others” when we want to teach them social norms.

**Dasein** – German for “being there.” Martin Heidegger's term used for human beings to emphasize the view that they are not objects. Heidegger rejected the subject/object distinction and thought it led to a mistaken view dualism—that the mind and body are totally different things. *Dasein* is used as a verb rather than a noun to emphasize that we are what we do and not an object of some sort.

**de dicto** – Latin for “of the word” or “of what is said.” For example, a person can consistently believe that water (i.e. a liquid we drink for survival that freezes when cold and turns to gas when hot) can boil at a lower temperature than H₂O (a molecule consisting of two different chemical elements) under a *de dicto* interpretation. “De dicto” is often contrasted with “*de re.*”

**de facto** – Latin for “concerning fact.” Used to describe the actual state of affairs or practice regardless of what's right or lawful. For example, a dictator could find an illegitimate way to attain power and be a ruler *de facto*. “De facto” is often contrasted with “*de jure.*”

**de jure** – Latin for “concerning law.” Used to describe a situation in terms of the law or ethical considerations. For example, a dictator who attains power illegitimately would not be in power *de jure*. “De jure” is often contrasted with “*de facto.*”

**de re** – Latin for “of the thing.” For example, a person can not coherently believe that water can boil at
a lower temperature than H\textsubscript{2}O because they both refer to the same thing under a *de re* interpretation. "De re" is often contrasted with "de dicto."

**debate** – A prolonged discussion concerning a disagreement that is characterized by two or more opposing sides that (a) try to give reasons to believe a conclusion, (b) try to explain why the conclusions of the opposing side should be rejected, and (c) try to explain why the arguments given by the opposing side should be rejected. Debates need not be between two people and they need not exist in a face-to-face presentation. A single philosophical essay can be considered to be part of a debate that's been going on for hundreds or thousands of years by philosophers in different time periods who read various arguments and respond to them.

**decidability** – A question is decidable if we can determine the answer. For example, logical systems are supposed to be able to determine if arguments are valid. An argument that can't be determined to be valid by a logical system would be "undecidable" by that logical system. Any logical system that can't determine if an argument is valid is semantically incomplete. See "semantic completeness" for more information.

**decision theory** – See "utility theory."

**deconstructionism** – A philosophical domain concerned with examining the assumptions behind various arguments and beliefs (known as "deconstruction").

**deduction** – Reasoning or argumentation that attempts to prove a conclusion is true as long as we assume the premises are true. Good deductive arguments are logically valid. For example, "All men are mortal. Socrates is a man. Therefore, Socrates is a mortal" is a logically valid deductive argument. Deduction is often contrasted with "induction."

**deductive reasoning** – See “deduction.”

**deductively complete** – See “syntactic completeness.”

**default position** – The position that lacks the burden of proof before debate begins (perhaps because it is rationally preferable). For example, the default position of a debate tends to be an undecided point of view against both those who are for and and those who are against some belief. Both sides of a debate are therefore expected to argue for their particular beliefs.

**defeasible** – Reasoning is defeasible if it's rationally compelling without being logically valid. The support the premises have for the conclusion could be insufficient depending on certain unstated facts. A defeasible argument can be defeated by additional information. Defeasible arguments could be considered to be reasons to believe something, all things equal—one consideration in favor of a conclusion. The opposite of “defeasible” is “indefeasible.”

**defeater** – The information that can defeat a defeasible argument. Defeaters are reasons against conclusions that are more important than the previous defeasible support for the conclusion.

**defense** – (1) A defensive argument against an objection (i.e. a “counterargument”). (2) A response to various objections in an attempt to explain why they aren't convincing. (3) The opposition to an attack.
**definable concept** – A concept that can be defined and understood in terms of other concepts. For example, we can define “valid argument” as an argument with a form that assures us that it can't have true premises and a false conclusion at the same time. “Definable concepts” can be contrasted with “primitive concepts.”

**definiendum** – The term that is defined by a definition. Consider the definition of “argument” as “one or more premises that supports a conclusion.” In this case the definiendum is “argument.” “Definiendum” can be contrasted with “definiens.”

**definiens** – The definition of a term. Consider the definition of “premise” as “a proposition used to give us reason to believe a conclusion.” In this case the definiens is “a proposition used to give us reason to believe a conclusion.” “Definiens” can be contrasted to “definiendum.”

**deism** – The view that one or more gods exist, but they are not people and/or they don't interfere with human affairs. For example, Aristotle's first cause (i.e. prime mover).

**deity** – See “god.”

**deflationary** – (1) The property of involving truth or reality without involving it as strongly as we might otherwise expect. Deflationary truth involves truth without any assumption regarding realism, but deflationary metaphysics could be compatible with realism (i.e. the existence of facts). (2) To have the property of shrinking or collapsing.

**deflationary theory of truth** – The view that to assert a statement to be true is merely to assert the statement, and that there is nothing more to be said about what “truth” means. The deflationary theory of truth is compatible with “nonfactual truths” and are sometimes contrasted with the “correspondence theory of truth.”

**deflationism** – See the “deflationary theory of truth.”

**Demiurge** – (1) A godlike being theorized by Plato that is thought to be similar to an artisan who crafts and maintains the physical universe. Plato did not describe the Demiurge as the creator of the entire physical universe, and Platonists often thought that the entire physical universe was created or dependent on a greater being called “the Good.” (2) According to Neoplatonists, the Demiurge is “Nous” (the mind or intellect of the Good).

**democracy** – A political system where people share power by voting. Many democracies have people vote for “representatives” who have the majority of the ruling power. (Representative democracies are also known as “republics.”)

**DeMorgan's laws** – A rule of replacement that takes two forms: (a) “It's not the case that both $a$-and-$b$” means the same thing as “not-$a$ and not-$b$.” (b) “It's not the case that $a$ and/or $b$” means the same thing as “not-$a$ and not-$b$. (“$a$” and “$b$” stand for any two propositions.) For example, “it's not the case that dogs are either cats or lizards” means the same thing as “no dogs are cats, and no dogs are lizards.”

**denying a conjunct** – A logical fallacy committed by arguments with the following form—“It's not the
case that both a-and-b. Not-a. Therefore, b.” This argument form is logically invalid. For example, “Socrates isn't both a dog and a person. Socrates isn't a dog. Therefore, Socrates isn't a person.”

denying the antecedent – An invalid argument with the form “if a, then b; not-a; therefore, not-b.” A counterexample is, “If all dogs are reptiles, then all dogs are mammals. It's not the case that all dogs are reptiles. Therefore, it's not the case that all dogs are mammals.”

deontic logic – A formalized logical system that uses “deontic quantifiers.”

deontic quantifier – A symbol used in formal logic to state when an action is obligatory (O), permissible (P), or forbidden (F). For example, “Op” means that “p” is obligatory.

deontology – Moral theories that state that there is something other than consequences that determine which actions are right or wrong, but deontologists also reject virtue ethics (which is primarily concerned with what it means to be a good person rather than what actions are right or wrong). For example, see “Kant's Categorical Imperative.” “Deonology” is often contrasted with “consequentialism.”

derivation – A formal proof of a proposition expressed in formal logic. A derivation can be described as a series of statements that are implied by rules of inference, axioms of a logical system, or other statements that have been derived by those two things. For example, a logical system could have an axiom that states “a or not-a” and have a rule of inference that states “a implies a or b.” In that case the following is a derivation—“a or not-a. Therefore, a or not-a or b.” See “axioms,” “rules of inference,” “logical system,” and “theorem” for more information.

descriptive – (1) Statements that help us understand the nature of things or aspects of reality. (2) Value-free information about the nature of things or reality. “Descriptive” is often contrasted with “prescriptive” or “evaluative.”

desire – Motivation or yearning. For example, a hungry person desires food. Desire is sometimes thought of only as motivation related to the body rather than as motivation caused by reasoning or ethical considerations. “Desire” can be contrasted to Immanuel Kant's conception of “good will.”

desire-dependent reason – A reason for an action that depends on a desire. For example, a person who yearns to eat chocolate has a reason to eat chocolate. “Desire-dependent reasons” can be contrasted with “desire-independent reasons.”

desire-independent reason – A reason for action other than a desire. For example, John Searle argues that promises are desire-independent reasons. If you promise to do something, then you have a reason to do it, even if you don't desire to do it. “Desire-independent reasons” can be contrasted with “desire-dependent reasons.”

destiny – (1) A fated course of events, which is generally thought to be fated due to a person having a certain purpose. For example, King Arthur could have been said to be destined to become a king insofar as he was meant to be a king and would become a king no matter what choices he made. (2) A probable future event involving a person's purpose that could be willfully achieved, but could be avoided given resistance. Perhaps King Arthur was destined to become king and could make choices to
become the king, but could have fought against his destiny and become a blacksmith instead.

**determinism** – The view that everything that happens is inevitable and couldn't have been otherwise. Causal determinism is the view that the prior state of the universe and laws of nature were sufficient to cause later states of the universe. Determinism is not necessarily incompatible with the view that our decisions help determine what happens in the world, but the decisions we make could also be determined.

**deterrence** – A justification for punishment in terms of the fear that the punishment causes people in order to prevent crimes. Rational people are expected to choose not to commit the crime in order to avoid punishment. For example, many people argue that the death penalty is a justified to use to punish murderers because it will deter murderers from killing more people.

**deus** – Latin for “god” or “divinity.”

**deus ex machina** – Latin for “god from the machine.” Refers to solving problems via miracles, or in unreasonable and simplistic ways.

**dialectic** – A process involving continual opposition and improvement. For example, Socratic dialectic occurs during a debate when hypotheses are presented, proven to be inadequate, then new and improved hypotheses are presented. Someone could claim that justice is *refusing to harm people*; and someone else could argue that *sometimes it's unjust to refuse to help someone, so justice can't be sufficiently defined as merely refusing to harm people*. A new claim could then be presented that defines justice as *refusing to harm people and being willing to help people*. One conception of dialectic is said to consist of at least one “thesis,” “antithesis,” and “synthesis.”

**dialectical materialism** – The view that economic systems face various problems and solutions are offered for those problems until they are replaced by an improved economic system. For example, slavery was replaced by feudalism, and feudalism was replaced by capitalism; and each of these systems faced fewer or less severe problems than those that existed previously. Dialectical materialists often think that communism is the ultimate economic system that will no longer face problems. See “dialectic” for more information.

**dialetheism** – The view that the “law of non-contradiction is false”—that contradictions can exist. If dialetheism is true, then a statement can be both true and false at the same time.

**dictatorship** – A political system defined by a single person who has the supreme power to rule.

**difference principle** – A principle of John Rawl's theory of justice (i.e. “Justice as Fairness”) that requires that we only allow economic and social inequality if it benefits the least-well-off group of society. For example, many people believe that capitalism helps both the rich and the poor insofar as it motivates people to work hard to make more money (which could lead to economic prosperity), and the difference principle could be used to justify an unequal distribution of wealth assuming it can justify capitalism in this way.

**Ding an sich** – German for “thing in itself.”
discursive – (1) Involving “inferential reasoning.” (2) Rambling or discussing a wide range of topics.

discursive concept – According to Immanuel Kant, discursive concepts are general concepts known through inferential reasoning or experience rather than concepts known from a “pure intuition” (that don't depend on experience or generalization). For example, the concept of the person is a discursive concept because we can only understand the concept of the person from having various experiences and generalizing from those experiences. “Discursive concepts” can be contrasted with “non-discursive concepts.”

discursive reasoning – A synonym for “inferential reasoning.”

disjunct – The first or second part of a disjunction. Disjunctions have the form “a or b,” so both “a” and “b” are disjuncts. Consider the disjunction, “either Socrates is a man or he's a dog.” That disjunction has two disjuncts: (a) Socrates is a man and (b) Socrates is a dog.

disjunction – An either-or proposition. Disjunctions have the logical form “a or b.” The symbol for disjunction in symbolic logic is “∨.” An example of a statement using this symbols is “A ∨ B.” There are two kinds of disjunctions—the “inclusive or” and the “exclusive or.”

disjunctive syllogism – A valid argument form with the following form – “a or b; not a; therefore b.” For example, “Either all dogs are reptiles or all dogs are mammals. Not all dogs are reptiles. Therefore, all dogs are mammals.”

dispreferred – See “suberogatory.”

distribution – (1) When a categorical statement applies to all members of a set or category. For example, the statement, “all cows are mammals,” distributes cows, but not mammals because it says something about all cows, but it doesn't say anything about all mammals. (2) A rule of replacement that takes two forms: (a) “a and (b and/or c)” means the same thing as “(a and/or b) and (a and/or c).” (b) “a and/or (b and c)” means the same thing as “(a and b) and/or (a and c).” (“a”, “b,” and “c” stand for any three propositions.) For example, “all lizards are reptiles, and all lizards are either animals or living organisms” means the same thing as “either all lizards are reptiles or animals, and either all lizards are reptiles or living organisms.” (3) The way something is given away. For example, “distributive justice.” (4) Statistical differences. For example, “probability distribution.”

distributive justice – The domain of economic justice concerned with how we should determine the allocation or distribution of goods, services, opportunities, and privileges. For example, laissez-faire capitalism distributes goods and services based on voluntary transactions. In general, people will conduct business to make money and use the money to buy other goods and services. However, some people believe that distributive justice demands that we engage in redistribution of wealth because they believe it would be unjust to allow people who have no money to suffer or starve to death.

divine command theory – The view that things are right or wrong because one or more gods commands us to behave a certain way (or favors us to behave a certain way). For example, murder is wrong because one or more gods commands us not to murder other people. Divine command theory requires us to reject that there is rational criteria that determines right and wrong. For example, the divine command theorist might say that God commands us not to murder other people, but that God has
no reason to command such a thing other than perhaps having various emotions. Many people reject
divine command theory because of the “Euthyphro dilemma.” Many people believe that divine
command theory is a form of “subjectivism” because right and wrong would merely describe the
subjective states of one or more gods.

divine plan – (1) A course of events that were fated from a divinity. (2) A synonym for “divine
providence.”

divine providence – The view that everything that happens in the universe is guided and controlled by
a divinity. It is generally believed that the divinity controls the universe to make sure that better things
happen than would happen otherwise. Sometimes it is believed that the divinity assures us that
everything that happens is predestined and “for the best” (or at least “everything happens for a good
reason”) It is often thought that divine providence is a logical consequence of the assumption that God
exists and is all-good, all-knowing, and all-powerful; and it is often thought to conflict with our
experiences of evil in the world. See “the problem of evil” for more information.

divinity – A god or godlike being. See “God,” “Demiurge,” “Monad,” “the Good,” or “Universal
Reason.”

division – (1) See “fallacy of division.” (2) A mathematical operation based on a ratio or fraction. For
example “4 ÷ 2 = 2.” (3) To split objects into smaller parts.

doctrine of the maturity of chances – (1) The false assumption that the past results of a random game
will influence the future results of the game. For example, a person who loses at black jack five times
in a row might think that she is more likely to win if she plays another game. (2) See the “gambler's
fallacy.”

dogmatism – Close-mindedness. To be unwilling to change one's mind even if one's beliefs are proven
to be unreasonable.

dominance – (1) See “stochastic dominance.” (2) Relating to having control over others.

double negation – (1) A rule of replacement that states that “a” and “not-not-a” both mean the same
thing.(“a” stands for any proposition.) For example, “Socrates is a man” means the same thing as “it's
not the case that Socrates isn't a man.” (2) A “double negative.” When it's said that something isn't the
case twice. For example, “it's not the case that Mike didn't turn the TV on means the same thing as
“Mike turned the TV on.”

downing effect – The tendency for people with below average IQ to overestimate their IQ, and for
people with above average IQ to underestimate their IQ. This bias could be related to the “Dunning-
Kruger effect.”

doxastic – Something that relates to beliefs or is a lot like a belief, such as judgment or desire.

doxastic logic – A formal logical system with modal operators for having various beliefs.

dualism – (1) The view that there are two fundamental different kinds of things, such as mind and
matter. See “property dualism” and “substance dualism” for more information. (2) A binary opposition, such as that between good and evil.

due process – (1) Procedures and safeguards to protect our rights. For example, the right to a fair trial. (2) Rights that are needed for appropriate dispute resolution, such as the right to appeal, to defend oneself from accusations, and to protect oneself from unjustified harm or punishment.

duty – (1) What must done. See “obligation.” (2) In *Metaphysische Anfangsgründe der Tugendlehre*, Immanuel Kant described “duty” as a normative continuum ranging from obligatory to heroic. Some philosophers believe that Kant always had this definition of duty in mind. (3) The concept of duty used by the Stoics was that of an *appropriate action*—actions that are rationally preferable. The Stoic concept of duty was not of what *must be done* as it often implies in our day and age.

Dunning–Kruger effect – The cognitive bias defined by the tendency of unskilled people to overestimate how skilled they are because they don't know about all the mistakes they make. This bias could cause many people to be overconfident concerning the likelihood that their beliefs are justified or true. This bias is likely related to the “the Downing effect.”

E-type proposition – A proposition with the form “no a are are b.” For example, “no cats are reptiles.”

economy – (1) A system involving the production of goods and services, and wealth distribution. See “capitalism” and “socialism” for more information (2) Thrifty management.

efficient cause – That which makes something move around or makes things change. For example, the efficient cause of a billiard ball's movement could be the event of another billiard ball that rolled into it.

egoism – Relating to oneself. See “ethical egoism” or “psychological egoism.”

eliminative materialism – (1) The view that the mind does not exist as many people think, and that the concepts of “folk psychology” (e.g. beliefs and desires) are inaccurate views of reality. The mind is understood instead as certain brain activity or functions. (2) The view that physics describes reality as it exists best and nothing outside of physics describes reality accurately. Eliminative materialism endorses a form of reductionism that requires us to try to find out the parts something is made out of to find out what it really is. For example, eliminative materialists tend to think that psychological activity is actually brain activity, and they are likely to reject the existence of “qualia.” “Eliminative materialism” requires us to reject “emergence.”

eliminative reductionism – The view that the ultimate reality is made up of small parts, like subatomic particles. We can find out what things *really are* by finding out what parts they are made of. For example, water is actually H₂O (or whatever H₂O is made of). The physicalist conception of “eliminative reductionism” is “eliminative materialism.”

eliminativism – See “eliminative materialism.”

emergence – (1) Epistemic emergence refers to our inability to know how to reduce one phenomenon into another. For example, chemistry is epistemically emergent insofar as we don't know how to reduce it to physics—the laws of physics seem insufficient to predict the behavior of all chemical reactions.
Metaphysical emergence refers to when something is “greater than the sum of its parts” or the irreducible existence of a phenomenon that exists because of an underlying state of affairs. For example, some scientists and philosophers think that the mind is an emergent phenomena that exists because of brain activity, but the mind is not the same thing as brain activity.

**emanation** – How lower levels of existence, such as physical reality, flows from and depends on an ultimate eternal being. Those who believe in emanation tend to think that the ultimate reality is God or “the Good.” Emanation is the idea that creation is ongoing and eternal rather than out of nothing. In that sense the physical universe has always existed.

**emanationism** – The view that reality as we know it exists from emanation—all of existence as we know it depends on and constantly flows from an ultimate eternal being. See “emanation” for more information.

**emotivism** – An anti-realist noncognitive metaethical theory that states that moral judgments are emotional expressions. For example, saying, “The death penalty is immoral” actually expresses one's preference against the death penalty and it means something like saying, “The death penalty, boo!” Although emotivism expresses emotions, the emotions we express when we make moral judgments don't have to actually be experienced by anyone.

**empirical** – Evidence based on observation.

**empirical apperception** – According to Immanuel Kant, this is the consciousness of an actual self with changing states or the “inner sense.” “Empirical apperception” can be contrasted with “transcendental apperception.”

**empirical intuition** – Intuitive justification that is based on a person's background knowledge concerning observation (empirical evidence). It can be difficult for a person to explain why they find various beliefs to be plausible even if they are based on her observations, and she can say that those beliefs are “intuitive” as a result. For example, it was intuitive for many early scientists to expect objects that fall from a moving surface (such as a sailing ship) to continue falling in the same direction they were moving at, and we have confirmed that belief to be true (depending on various other factors). This belief is now a rational expectation based on the law of inertia (Newton's First Law of motion)—an object at rest stays at rest and an object in motion stays in motion with the same speed and direction unless it is acted upon by an outside force.

**empiricism** – The philosophical belief that all knowledge about the world is empirical (based on observation). Empiricists believe that we can know what is true by definition without observation, but that beliefs about the world must be based on observation. Empiricists reject innate ideas, noninferential reasoning, and self-evidence as legitimate sources of knowledge.

**end in itself** – Something that should be valued for its own sake. See “final end.”

**endurance theory** – See “enduratism.”

**endurantism** – The view of persistence and identity that states that a persisting thing is entirely present at every moment of its existence. Endurantists believe that things can undergo change and still be the
same thing. For example, a single apple can be green and then turn red at a later time. Endurantists believe that persisting things have spatial parts, but they don't have temporal parts. See “temporal parts” for more information. “Endurantism” is often contrasted with “perdurantism.”

**endure** – (1) For a single thing to fully exist at any given moment in time, and to continue to exist at different moments in time. Things that endure could undergo various changes, but are not considered to be “different things” as a result. For example, an apple can be green at an earlier point in time, and it can turn red at a later point in time. See “endurantism” for more information. (2) To survive adversity or to continue to exist despite being changed. (3) To tolerate an attack or insult.

**entailment** – (1) A logical implication that is properly relevant or connected. For example, “if all dogs are mammals, then Socrates is a man” is true, according to classical logic, but it is counterintuitive and could even be considered to be false in ordinary language. “Relevance logic” is an attempt to make better sense out of how implications should be properly connected as ordinary language requires them to be. (2) A valid logical implication. The premises entail the conclusions of valid arguments.

**enthymeme** – (1) A categorical syllogism with an unstated premise. For example, “all acts of abortion are immoral because all fetuses are persons.” In this case the missing premise could be “all acts of killing people are immoral.” (2) Any argument with an unstated premise or conclusion. For example, “all fetuses are people and all acts of killing people are immoral” has the unstated conclusion “all acts of abortion are immoral.”

**entity** – A phenomenon, being, part of reality, or thing that exists.

**eon** – See “œon.”

**epicureanism** – (1) The philosophy of Epicurus who thought that everything is physical, that pleasure is the only good, pain is the only evil, and that gods don't care about human affairs. (2) The view or attitude that mindless entertainment and pleasures are more important than intellectual or humanitarian pursuits.

**epiphenomenalism** – The view that psychological phenomena has no effect on nonpsychological physical phenomena. If epiphenomenalism is true, then our thoughts and decisions could be a byproduct of a brain and be incapable of making any difference to the motions of our body. For example, stopping pain would never be a reason that we actually decide to see the dentist when we have a cavity. Instead, the brain might fully determine that we go to the dentist based on the physical motion of particles.

**epistêmê** – Greek for “theoretical knowledge.”

**epistemic anti-realism** – The view that there are no facts relating to rationality or justification (other than what is true based on our mutual interests or collective attitudes). For example, we might say that it's true that believing “1+1=3” is unjustified and irrational, but anti-realists might say that we merely tend to dislike the concept of some people believing such a thing, and this mutual interest led to talk concerning what we ought not believe.

**epistemic certainty** – The degree of justified confidence we have in our beliefs. To be certain that
something is true could mean (a) that we have a maximal degree of justification for that belief, (b) that we can't doubt that it's true, or (c) that it's impossible for the belief to be false. To be absolutely certain that something is true is to have no chance of being wrong. For example, we are plausibly absolutely certain that “1+1=2.”

**epistemic externalism** – (1) The view that proper justification (or knowledge) could be determined by factors that are external to the person. For example, reliabilists think that a belief is only justified if it's formed by a reliable process (e.g. scientific experimentation). (2) The view that a person does not always have access to finding out what makes her beliefs justified. For example, we think we know that induction is reliable, but we struggle to explain how we could justify such a belief with an argument. (3) The view of justification as being something other than the fulfillment of our intellectual duties. For example, beliefs could be justified if they are more likely true than the alternatives. Newton's theory of physics was unable to predict the motion of Mercury around the Sun, but Einstein's theory of physics was able to, so that one consideration seems to imply that Einstein's theory is more likely true or accurate.

**epistemic internalism** – (1) The view that proper justification (or knowledge) can only be determined by factors that are internal to the person. For example, “mentalism” states that only mental states determine if a belief is justified. (2) The view that a person can become aware of what makes her beliefs justified through reflection. For example, everyone who knows “1+1=2” can reflect about it to find out how their belief is justified or they don't know it after all. (3) The view that justification concerns the fulfillment of our intellectual duties. For example, justification would require that we fulfill the duty not to contradict ourselves.

**epistemic intuitionism** – The view that we can justify various beliefs using intuition, and it's generally a form of rationalism.

**epistemic modality** – The distinction between what is believed and what is known. Moreover, epistemic modality can involve the degree of confidence a belief warrants. For example, we know that more than three people exist and we are highly confident that this belief is true. We communicate epistemic modality through terms and phrases, such as “probably true,” “rational to believe,” “certain that,” “doubt that,” etc.

**epistemic naturalism** – The view that that natural science (or the methods of natural science) provides the only source of factual knowledge. Knowledge of tautologies or what's true by definition is not relevant to epistemic naturalism. “Epistemic naturalism” is often only used to refer to one specific field. For example, one could be an epistemic naturalist regarding morality, but not one regarding logic. A moral epistemic naturalist would think that we can learn about morality through natural science (or the same methods used by natural science). See “empiricism” for more information.

**epistemic objectivity** – Beliefs that are reliably justified (e.g. though observation or the scientific method) or justified via a process that can be verified by others using some agreed-upon process. In this case the existence of laws of nature would be objective, but the existence of a person's pain might not be. “Epistemic objectivity” can be contrasted with “epistemic subjectivity.”

**epistemic randomness** – When something happens that is not reliably predictable. For example, when we roll a six-sided die, we don't know what number will come up. We say that dice are good for
attaining random results for this reason. “Epistemic randomness” can be contrasted with “ontological randomness.”

**epistemic realism** – The view that there is at least one fact of rationality or justification that does not depend on a social construction or convention. Epistemic realists often think there are certain things people should believe and that people are irrational if they disagree. For example, it is plausible that we should agree that “1+1=2” because it's a rational requirement.

**epistemic relativism** – Also known as “relativism of truth.” The view that what is true for each person can be different. For example, it might be true for you that murder is wrong, but not for someone else. Relativism seems to imply that philosophy is impossible because philosophers want to discuss reality and what's true for everyone. Relativism is often said to be self-defeating because it makes a claim about everything that's true—but that implies that relativism itself is relative.

**epistemic state** – A psychological state related to epistemology, such as belief, degrees of psychological certainty, perception, or experience.

**epistemic subjectivity** – Beliefs that are unreliably justified or beliefs that can't be verified by others through some agreed-upon process. For example, a plausible example is believing something is true because it “feels right.” “Epistemic subjectivity” can be contrasted with “epistemic objectivity.”

**epistemic utility theory** – The view that we should determine our epistemic states (e.g. beliefs) on which epistemic states we value the most. Epistemic states could be said to be “rational” when they are states we significantly value more than the alternatives, and “irrational” when they are states we significantly value less than the alternatives. For example, the epistemic state of believing *that jumping up and down is the best way to buy doughnuts* is significantly worse than the alternatives, so believing such a thing is irrational.

**epistemic vigilance** – Attributes and mechanisms that help people avoid deception, manipulation, and confusion. For example, we intuitively tend not to trust claims that seem to be “too good to be true” from people who want to sell us something, which helps us stay vigilant against those who want to manipulate us.

**epistemology** – The philosophical study of knowledge, rationality, and justification. For example, empiricism is a very popular view of justification, and the scientific method is generally a reliable source of knowledge.

**equivalence** – A rule of replacement that takes two forms: (a) “*a* if and only if *b*” means the same thing as “if *a*, then *b*; and if *b*, then *a.*” (b) “*a* if and only if *b*” means the same thing as “*a* and *b*” and/or “not-*a* and not-*b*.” (“*a*” and “*b*” stand for any two propositions.) For example, “Socrates is a rational animal if and only if Socrates is a person” means the same thing as “Socrates is a rational animal and a person, or Socrates is not a rational animal and not a person.”

**equivocation** – A fallacy that is committed when an argument requires us to use two different definitions for an ambiguous term. For example, someone could argue that everyone has a family tree and trees are tall woody plants, so everyone has a tall woody plant. See “ambiguity” for more information.
equivocal – Ambiguous words or statements (that could have more than one meaning or interpretation). For example, the word “social” can refer to something “socialistic” (e.g. social programs) or to something that has to do with human interaction (e.g. being social by spending time talking to friends).

error theory – (1) The view that states that all moral statements are literally false because they don't refer to anything, even though moral statements are meant to refer to facts. Nothing is right or wrong, nothing has intrinsic value, and no one is virtuous or vicious. Error theory has been criticized for being counterintuitive. For example, the error theorist would say that it's false that “murder is wrong.” However, error theorists can endorse “fictionalism” or continue to make moral statements for some other reason. (2) Any theory that requires us to reject the view that concepts of some domain refer to facts, but require us to agree that statements within that domain are meant to relate to facts. For example, an error theorist could reject all psychological facts and say that all psychological statements that we think refer to facts are false. It would then be false that “some people feel pain.”

essence – The defining characteristics of an entity or category. Aristotle argued that objects and animals have an essence. Aristotle's understanding of essence is a lot like Platonic Forms except he considers it to be part of the object or animal rather than an eternal and immaterial object outside of space and time. For example, Aristotle says that the essence of human beings is “rational animal,” so human beings wouldn't be human beings if they lacked one of these defining characteristics.

essential characteristic – Characteristics that are necessary to be what one is. For example, Aristotle argues that essential characteristic of Socrates is that he is capable of being rational because that is essential to being a human—if Socrates is not capable of being rational, then he is not a person. “Essential characteristics” are the opposite of “accidental characteristics.”

essentialism – The view that types of entities can be defined and distinguished using a finite list of characteristics. See “essence” for more information.

eternal return – The view that events will repeat themselves exactly as they occur now over and over ad infinitum in the future. Every person will live again and they will live the exact same life on and on forever. Sometimes the eternal return is presented as a possibility given that the universe has finite possibilities and infinite time.

ethical egoism – The view that people should only act in their rational self-interest. For example, an ethical egoist might believe that a person shouldn't give money to the poor if she can't expect to be benefited by it in any way.

ethical libertarianism – See “political libertarianism.”

ethics – The philosophical study of morality. Ethics concerns when actions are right or wrong, what has value, and what constitutes virtue.

etymological fallacy – A fallacy committed by an argument when a word is equivocated with another word it's historically derived from. For example, “logic” is derived from “logos,” which literally meant “word.” It would be fallacious to argue that “logic” is the study of words just because it is historically
based on “logos.”

**eudaimonia** – Greek for “happiness” or “flourishing.”

**eudaimonism** – Ethical theories concerned with happiness or flourishing. Eudaimonist theories of ethics tend to be types of “virtue ethics.” Eudaimonists tend to argue that we should seek our happiness (or flourishing), and that virtue is a necessary condition of being truly happy or flourishing. Socrates, Aristotle, Epicurus, and the Stoics are all examples of “eudaimonists.”

**Euthyphro dilemma** – A problem concerning whether something is determined by the interest of one or more gods or whether the interest of one or more gods is based on rational criteria. The Euthyphro dilemma was originally found in a Socratic dialogue called the *Euthyphro* where Socrates asked if what is pious was pious because the gods liked it or if the gods liked pious things because they were worthy of being liked. Now the “Euthyphro dilemma” is generally used to refer to what is right or wrong—is what is right only right because God likes it, or does God like what is right because of some rational criteria? Many people take this dilemma as a good reason to reject “divine command theory” and to think that what is right or wrong is based on rational criteria. If God exists, then perhaps God likes what is right because of the rational criteria.

**evaluative** – Concerning the value of things. Statements, judgments, or beliefs that refer to values. For example, “human life is intrinsically good” is an evaluative judgment.

**evidence** – See “justification.”

**evidentialism** – The view that beliefs are only justified if and when we have evidence for them.

**ex nihilo** – A Latin phrase meaning “out of nothing.” It is generally used to refer to the idea that something could come into existence from nothing, and such an idea is often said to conflict with the scientific principle known as the “conservation of energy.”

**exclusive or** – An “or” of a sentence that requires that only one of two propositions are true. It would be impossible for both propositions to be true. The form of the exclusive or can be said to be “either $a$ or $b$, and not-$a$-and-$b$.” For example, “either something exists or nothing exists.” It would be impossible for both to be true or for neither to be true. The “exclusive or” is often contrasted with the “inclusive or.”

**exclusive premises** – A fallacy committed when categorical syllogisms have two negative premises. There are no logically valid categorical syllogisms with two negative premises. For example, “No dogs are fish. Some fish are not lizards. Therefore, no dogs are lizards.”

**existential quantifier** – A term or symbol used to say that something exists. For example, “some” or “not all” are existential quantifiers in ordinary language. “Some horses are mammals” means that at least one horse exists and “not all horses are male” means that there is at least one horse that is not a male. The existential quantifier in symbolic logic is “$\exists$.” See “quantifier” for more information.

**exportation** – A rule of replacement that states that “if $a$ and/or $b$, then $c$” means the same thing as “if $a$, then it's the case that if $b$, then $c$.” (“$a$, “$b$,” and “$c$” stand for any three propositions.) For example,
"if Socrates is either a mammal or an animal, then Socrates is a living organism" means the same thing as "if Socrates is a mammal, then it's the case that if Socrates is an animal, then Socrates is a living organism."

**expressive completeness** – A logical system is expressively complete if and only if it can state everything it is meant to express. For example, a system of propositional logic with connectives for “and” and “not” is expressively complete insofar as it can state everything any other connective could state. You can restate “$A$ and/or $B$” as “it's not the case that both not-$A$ and not-$B$. (“Hypatia is a mammal and/or a mortal” means the same thing as “it's not the case that Hypatia is both a non-mammal and a non-mortar.”) See “expressibility” and “logical connective” for more information.

**extension** – What a term refers to. For example, the “morning star” and “evening star” both have the same extension. “Extension” is often contrasted with “intension.”

**extensionality** – Extensionality is concerned with the reference of words. For example, “the morning star” and “the evening star” both refer to Venus, so they both have the same extension. “Extensionality” is often contrasted with “intensionality.” Also see “sense” and “reference” for more information.

**existential fallacy** – A fallacy that is committed by an argument that concludes that something exists based on the fact that something is true of every member of a set. The form of the existential fallacy is generally “all $A$ are $B$. Therefore, some $A$ are $B$.” For example, “All unicorns are horses. Therefore, there is a unicorn and it's a horse.” Another example is, “All trespassers on this property will be fined. Therefore, there is a trespasser on this property who will be fined.”

**existential import** – The property of a proposition that implies that something exists. For example, Aristotle thought that the proposition “all animals are mammals” implied that “at least one mammal exists.” However, many logicians now argue that propositions of this type do not have existential import. See the “existential fallacy” for more information.

**existentialism** – A philosophical domain that focuses on the nature of the human condition. What it's like to be a human being and what it means to live authentically are also of particular interest. Existentialist philosophers often argue (a) for the meta-philosophical position that philosophy should be a “way of life” as opposed to technical knowledge or essay writing; (b) that each person is ultimately “on their own;” (c) for the view that people should re-examine their values rather than rely on evaluative beliefs passed on by others; (d) that we have no essence, so we need to determine our purpose (or “essence”) through our actions; and (e) that being a human being is characterized by absolute freedom and responsibility.

**explaining away** – To reveal a phenomenon to not exist after all. To “explain away” a phenomenon is often counterintuitive, inconsistent with our experiences, or insensitive to our experiences. For example, someone who claims that beliefs and desires don't actually exist because psychological phenomena are actually just brain activity of some sort would be counterintuitive and conflict with our experiences. Anyone who makes this claim should tell us why we seem to experience that beliefs and desires exist, and why these concepts are convenient when we want to understand people's behavior. See “eliminative reductionism” for more information. “Explaining away” can be contrasted with “saving the phenomena.”
explanans – A statement or collection of statements that explain a phenomena. For example, “people who are hungry generally eat food” is an explanans and can explain why John ate two slices of pizza. “Explanans” is often contrasted with “explanandum.”

explanandum – A phenomenon that's explained by a statement or series of statements. For example, John ate two slices of pizza is an explanandum, and we can explain that phenomenon by the fact that “people who are hungry generally eat food.” “Explanandum” is often contrasted with “explanans.”

explicit knowledge – Knowledge that enters into one's consciousness and can be justified through argumentation by those who hold it. For example, scientists can explain how they know germs cause disease because they have explicit knowledge about it. “Explicit knowledge” is often contrasted with “tacit knowledge.”

expressibility – The ability of a logical system to express the meaning of our statements. For example, consider the argument, “all humans are mammals; all mammals are animals; therefore, all humans are animals. According to propositional logic, this argument has the form “A; B; therefore, C” and it would determine this argument to be logically invalid as a result. However, predicate logic is better able to capture the meaning of these statements and it can prove that the argument is logically valid after all. Therefore, predicate logic is expressively superior to propositional logic given this one example. See “valid argument” for more information.

extension – To exist in space and time, and to take up space. To have a body or physical shape.

externalism – See “epistemic externalism,” “motivational externalism,” or “semantic externalism.”

externalities – Unintended positive or negative effects on third parties by business transactions. For example, pollution is a negative externality caused by many business transactions. Many people who oppose having a free market without regulation argue that it would be unfair for third parties who are harmed by externalities to not be compensated, and that compensation might not be feasible without regulations.

extrinsic value – A type of value other than “intrinsic value.” For example, “instrumental value” and “inherent value” are types of extrinsic values. Sometimes we say that an action is extrinsically good insofar as it is instrumental for some intrinsic good. For example, eating food is generally good because it often helps us live happier or more pleasurable lives. However, eating food is extrinsically good rather than intrinsically good because eating food without some relation to pleasure, health, or happiness has no value.

fact – (1) A state of affairs, relation, or part of reality that makes a statement true. For example, it's true that objects fall and will continue to fall because it's a fact that “the law of gravity exists” and accurately describes reality. (2) A statement that is known to be true—at least by the experts. Facts of this sort are often contrasted with insufficiently justified “opinions.” (3) According to scientists, facts are observations (empirical evidence).

fact/value gap – Some philosophers believe that facts and values are completely different domains that can't overlap. The fact/value gap refers to the distance they believe these two domains are from each
other. This gap is especially important to people who believe that evaluative statements reflect our desires or preferences rather than to factual statements.

**factual truth** – Statements are factually true when they properly relate to facts or reality. For example, “something exists” is an uncontroversial example of a factually true statement. “Factual truth” can be contrasted with “nonfactual truth.”

**faculty** – (1) The ability to do something. For example, people have the faculty for rational thought. (2) The teachers of a school. For example, the faculty of a school.

**fallacy** – An error in reasoning. Formal fallacies are committed by invalid arguments and informal fallacies are committed by errors in reasoning of some other kind.

**fallacy fallacy** – (1) See “argumentum ad logicam.” (2) A type of fallacy committed by an argument that falsely claims another argument commits a certain fallacy. For example, Lisa could argue that “Sam is an idiot for thinking that only two people exist. We have met many more people than that.” Sam could then respond, “You have committed the *ad hominem fallacy*. My belief should not be dismissed, even if I am an idiot.” In this case Lisa's argument does not require us to believe that Sam is an idiot. It is an insult, but it can be separated from her actual argument.

**fallacy of composition** – A fallacy committed by an argument that falsely assumes that a whole will have the same property as a part. For example, “molecules are invisible to the naked eye. We are made of molecules. Therefore, we are invisible to the naked eye.” The “fallacy of composition” is often contrasted with the “fallacy of division.”

**fallacy of division** – A fallacy committed by an argument that falsely assumes that a property that a whole has will also be a property of the parts. For example, “We can see humans with the naked eye. Humans are made of molecules. Therefore, we can see molecules with the naked eye.”

**fallacy of the consequent** – A synonym for “affirming the consequent.”

**fallible** – Beliefs or statements that possibly contain errors or inaccuracies.

**fallibilism** – The view that knowledge does not require absolute certainty or justifications that guarantees the truth of our beliefs. “Fallibilism” is the opposite of “infallibilism.”

**false** – A proposition that fails to be true, such as “1+1=3.” Propositions, statements, and beliefs can be false. “False” is the opposite of “true.”

**false analogy** – A synonym for “weak analogy.”

**false cause** – A synonym for “*non causa pro causa*.”

**false conversion** – A synonym for “illicit conversion.”

**false dichotomy** – A synonym for “false dilemma.”
false dilemma – A fallacious argument that requires us to accept fewer possibilities than there plausibly are. For example, we could argue the following—“All animals are mammals or lizards; sharks are not mammals; therefore, sharks are lizards.” False dilemmas are related to the “one-sidedness” fallacy and generally use the logical argument form known as the “disjunctive syllogism.”

false positive – A positive result that gives misleading information. For example, to test positive for having a disease when you don't have a disease. Let's assume that 1 of 1000 people have Disease A. If a test is used to detect Disease A and it's 99% accurate, then it will probably detect that the one person has the disease, but it will also probably have around ten false-positive results—it will probably state that ten people have Disease A that don't actually have it.

false precision – See “overprecision.”

falsifiability – The ability to reject a theory or hypothesis based on rational criteria. For example, Newton's theory of physics was rejected on the basis of having more anomalies than an alternative—Einstein's theory of physics.

falsification – To falsify a theory—to prove it false, likely to be false, or worthy of being rejected based on some rational criteria.

falsificationism – The view that scientific theories and hypotheses can be distinguished from pseudoscientific ones insofar as scientific theories and hypotheses can be falsified—they can be rejected on the basis of rational criteria. In particular, hypotheses can be rejected if they conflict with our observations more than the alternatives. For example, we could hypothesize that all swans are white and that hypothesis would be falsifiable because a single non-white swan would prove it to be false.

fast track quasi-realism – An attempt to make sense out of moral language (such language involving moral facts, mind-independence, and moral truth) without endorsing moral realism by explaining how all such moral language can be coherent without moral realism. “Fast track quasi-realism” is often contrasted with “slow track quasi-realism.” See “quasi-realism” for more information.

fate – (1) A fated event is an inevitable event that will occur no matter what we do. For example, every choice we make will lead to our death; so it's plausible to think we are all fated to die. Sometimes it's thought that a fated event is inevitable because of a divine influence. Fate can be said to be a separate concept from “determinism” in that a determinist does not necessarily think that everything that happens will happen no matter what choices we make. (2) “Fate” is another term the Stoics used for the concept of “Universal Reason.” (3) In ordinary language, “fate” is often synonymous with “destiny.”

faulty analogy – A synonym for “weak analogy.”

feminism – The view that women should be treated as equals to men, that they have been systematically treated unjustly, that we should demand greater justice for women, and that we should combat sexism.

fictionalism – (1) The meta-ethical view that moral judgments refer to a fictional domain, and moral statements can be true or false depending on whether or not they accurately refer to the fictional
According to fictionalism, it would be true that “murder is wrong,” but only insofar as people agree that it's wrong (perhaps because a social contract says so). (2) Any domain where statements are meant to refer to a fictional domain. Statements within that domain are true or false depending on whether or not they accurately refer to the fictional domain. For example, we find it intuitive to say that it's true that unicorns are mammals and that Sherlock Holmes is a detective.

**final cause** – The purpose of a thing, action, or event. The final causes of scissors are to cut, and Aristotle thought that the final cause of human beings is to use (and improve) their capacity to reason.

**final end** – Something we psychologically accept to be worthy of desire or valuable for its own sake. For example, money is not a final end, but happiness is often said to be one. If someone asks why you need money, you might need to explain what you will do with the money to justify the need, but “happiness” seems to be worthy of desire without an additional justification. Final ends are often said to be important because if there are no final ends, then there seems to be nothing that makes a decision more ethical than another. A person who wants to get money to get food, wants food to live longer, and wants to live longer just to get money seems to be living a meaningless life. None of these goals are in any sense worthy on their own.

**first-person point of view** – The perspective of a person as having a unified field of experience that brings together various experiences within a single perspective (e.g. that can be used experience sight and touch at the same time). The first-person point of view is also often said to be unified in time—we experience things only because there's a before and after. If we didn't experience that our experiences are unified in time, then we could not observe objects moving and we couldn't even experience that an object is “the same object it was earlier.” The “first-person point of view” is often contrasted with the “third-person point of view.”

**folk psychology** – The everyday or common sense understanding of psychology involving the concepts of “belief” and “desire.” Some philosophers argue that “folk psychology” is false and we should only examine brain activity to know what facts of psychology are really about.

**forbidden** – A synonym for “impermissible.”

**formal cause** – The reason that something exists and/or the properties something will have if it perfects itself. For example, a seed's formal cause is to transform into a plant. Some philosophers argue that “formal causes” are identical to “final causes.”

**formal fallacy** – An error in reasoning committed by a logically invalid argument. For example, any argument with the form “if $a$, then $b$; $b$; therefore, $a$” is logically invalid.

**formal language** – Languages that are devoid of semantics, such as the languages used for formal logic. See “formal logic” and “formal system” for more information. “Formal language” can be contrasted with “natural language.”

**formal logic** – Logic concerned with logical form, validity, and consistency. “Formal logic” is often contrasted with “informal logic.” See “logical form” for more information.

**formal system** – A syntax-based system generally used for logic or mathematics. Formal systems
require people to follow rules and manipulate symbols in order to try to prove something in logic or mathematics, and no subjective understanding of the words are required.

**formalism** – The view in philosophy of mathematics that mathematics is nothing more than a set of rules and symbols. Mathematics as it exists in computers is an entirely formal system in this way. Some philosophers argue that there is more to mathematics than what computers do.

**forms** – See “Platonic Forms.”

**foundational** – The starting point or building blocks that everything else depends on. For example, a foundational belief can be justified without inferential reasoning or argumentation. The axioms of logic are a plausible example of foundational beliefs.

**foundationalism** – The view that there are privileged or axiomatic foundational beliefs that need not be proven. The source of privileged beliefs could be from self-evidence, non-inferential reasoning, non-empirical intuitive evidence. Foundationalism is one possible solution to the problem of justification requiring an infinite regress or circular reasoning. If everything we know needs to be justified from an argument, then we need to prove our beliefs using arguments on and on forever, or we need to be able to justify beliefs with other beliefs in a circular mutually supportive fashion. However, foundationalism requires us to reject that everything we know must be justified with inferential reasoning.

**foundherentism** – A view that we should accept a view that combines elements of both foundationalism and coherentism. Foundherentism uses various experiences or observations as a foundational origin of belief, but it (a) allows foundational beliefs to be mutually supportive, and (b) allows us to reject foundational beliefs that are inconsistent with the others. Foundherentism is one way we can try to correct potentially inaccurate beliefs that are based on theory-laden observations (that what we observe is interpreted by us and our assumptions shape how we interpret them). The fact that observations are theory-laden seems to imply that beliefs based on our observations are fallible.

**free logic** – Formal logical systems that can discuss objects or categories without requiring us to assume that the objects or categories exist.

**free rider** – Someone who benefits from a collective action between people without doing the work done by the others. For example, a person could benefit from laws against pollution but refuse to abide by those laws to increase the profit of her company.

**function** – The purpose of something. For example, the function of a knife is to cut things.

**functionalism** – Theories of philosophy of mind that state that psychological states are identical with (or “constituted by”) some functional role played within a system (such as a brain). According to many functionalists, both a machine and a human brain might have the same psychological states as long as they both have the same functional activities.

**fuzzy logic** – (1) Logical systems that use degrees of truth concerning vague concepts. For example, some people are more bald than others. Someone with no hair at all would be truthfully said to be bald, but someone with only a little hair might be accurately described as being bald (with a lesser degree of truth involved). (2) In ordinary language, “fuzzy logic” often refers to poorly developed logical
reasoning.

**gambler's fallacy** – Fallacious reasoning based on the assumption that the past results of a random game will influence the future results of the game. For example, if you toss a coin and get heads twice in a row and conclude that you are more likely to get tails if you keep playing. Gamblers who lose a lot of money often have this assumption when they make the mistake in thinking that they will more likely start winning if they keep playing the same game.

**genetic fallacy** – A fallacy committed by arguments that conclude something solely based on the origin of something else. For example, it would be fallacious to argue that someone will be a Christian just because her parents were Christians; or that someone's belief in evolution is unjustified just because her belief originated from casual conversations rather than from an expert.

**god** – A god is a very powerful being. Some people believe gods to be eternal and unchanging beings that created the universe, but others think gods to be part of (or identical to) the universe. Theists believe at least one god exists and atheists believe that no gods exist. Monotheists think that only one god exists, polytheists think more than one god exists, and pantheists think god is identical to the universe. Traditional monotheists often believe that God is all-good, all-powerful, all-knowing, and existing everywhere.

**golden mean** – Aristotle's concept of virtues as being somewhere between two extremes. For example, moderation is the character trait of wanting the right amount of each thing, and it's between the extremes of gluttony and an extreme lack of concern for attaining pleasure.

**golden rule** – A moral rule that states that we ought to treat other people how we want to be treated. For example, we generally shouldn't punch other people just because they make us angry insofar as we wouldn't want them to do it either.

**The Good** – Plato's term for the Form of all Forms. It is the ultimate being that all other types of reality depend on for their existence, and it is the ultimate ideal that determines how everything should exist. The Good is thought to be nonphysical and eternal. It's also known by Neoplatonists as the “One” or the “Monad.” See “Plato's Forms” and “emination” for more information.

**good will** – (1) To have good intentions. (2) According to Immanuel Kant, good will is being rationally motivated to do the right thing.

**grandfather's axe** – A thought experiment of an axe for which all the parts that have been replaced. The question is whether or not it's the same axe.

**greatest happiness principle** – The moral principle that states that we ought to do what will lead to the greatest good for the greatest number. In this case “goodness” is equated with “happiness” and “harm” is equated with “suffering.” So, the greatest happiness principle states that we ought to maximize happiness and minimize suffering for the greatest number of people. We can judge moral actions as right and wrong in terms of how much happiness and suffering the action will cause. Actions are right insofar as they maximize happiness and reduce suffering, and wrong insofar as they maximize suffering and reduce happiness. See “utilitarianism” for more information. John Stewart Mill's utilitarian notion of the “greatest happiness principle” is meant to be contrasted with Jeremy Bentham's form of
utilitarianism insofar as Mill believes that there are higher and lower qualities of pleasure (unlike Bentham). In particular he believes that intellectual pleasures are of a higher quality and value than bodily pleasures. To emphasize this view, Mill said, “Better to be Socrates dissatisfied than a pig satisfied.”

grue – A theoretical color that currently looks green, but will look blue at some later point in time. Grue is used to illustrate a problem of induction—how do we know emeralds will be green in the future when they might actually be grue? They might appear green now and then appear blue at some later point.

guilt by association – A synonym for “association fallacy.”

gunk – Any type of stuff that can be indefinitely split into smaller pieces. Gunk can be made of smaller parts without an indivisible or indestructible “smallest part” (i.e. atom). Philosophers speculate whether or not everything in the physical universe is made of gunk or atoms.

gunky time – The view of time as being infinitely divisible. If time is gunky, then there is no such thing as a shortest moment of time.

halo effect – The cognitive bias defined by our tendency to expect people with positive characteristics to have other positive characteristics, and people with negative characteristics to have other negative characteristics. For example, those who agree with us are more likely to be believed to be reasonable than those who disagree with us. The halo effect sometimes causes people to think of outsiders who think differently to be inferior or evil, and it makes it more likely for people to dismiss the arguments of outsiders with differing opinions out of hand.

hard determinism – The view that determinism is incompatible with free will, that the universe is deterministic, and that people lack free will.

hard atheism – The traditional view of atheism as the belief that gods don't exist. Hard atheism is contrasted with “soft atheism.”

hasty generalization – A fallacious argument that concludes something because of insufficient evidence. Hasty generalizations conclude that something is true based on various observations when the observations are not actually a sufficient reason to believe the conclusion is true. For example, to conclude that all birds use their wings to fly based on seeing crows and swans would be a hasty generalization. Not all generalizations are fallacious. See “induction” for more information.

hedonism – The view that pleasure is the only thing worthy of desire in itself and pain is the only thing worthy of avoidance in itself. Some hedonists might think that pleasure and pain are the only things with intrinsic value, but others might think their value is purely psychological—that pleasure is something people universally desire to attain and pain is something people universally desire to avoid.

Hegelian Dialectic – The view that progress is continually made in history when people find ways of attaining greater freedom. Various systems and institutions are often proposed to improve people's freedom, but they face various problems that prevent freedom from being perfectly enjoyed by everyone (which leads to revolts and revolutionary wars). New and better systems and institutions are
then created and the process continues. The first societies were thought to be based on slavery, greater freedom was found within feudalism, and even greater freedom was found in capitalism. Hegelian Dialectic developed the notions of “class conflict” and “social progress.” See “dialectic” for more information.

**hermeneutic circle** – Interpreting a text by alternating between considering parts and the whole of the text. For example, we can't understand the definitions given in dictionaries without considering the definition it gives of several different words and how they all relate. Some philosophers have suggested that the totality of human knowledge is like a hermeneutic circle insofar as we can't interpret our experiences without referring to other assumptions and experiences within a worldview.

**hermeneutics** – (1) The systematic study of interpretation regarding texts. (2) Philosophical hermeneutics is the systematic study of interpretations regarding linguistic and nonlinguistic expressions as a whole. For example, an issue of philosophical hermeneutics is, “Why is communication possible?”

**heuristic** – Experience-oriented techniques for finding the truth, such as a rule of thumb or intuition. For example, thought experiments are used to bring out an intuitive response.

**heuristic device** – An entity that exists to increase our knowledge of another entity. For example, models might never perfectly correspond to the reality they represent, but they can make it easier for us to understand aspects of reality. Allegories, analogies, and thought experiments are also heuristic devices.

**hidden assumption** – A synonym for “unstated assumption.”

**hidden conclusion** – A synonym for “unstated conclusion.”

**hidden premise** – A synonym for “unstated premise.”

**historical dialectic** – The view that history is a process that offers various ways of living that face problems, and new and improved ways of living are introduced to avoid the problems the old ones had. This is one way to understand historical progress or “cultural evolution.” “Hegelian dialectic” and “dialectical materialism” could both be considered to be types of “historical dialectic.”

**horned dilemma** – An objection that shows why a claim can be interpreted or defended in more than one way, but none of those solutions are acceptable. For example, consider the following statement —“This statement is false.” If the statement is false, then it's true. If it's true, then it's false. Neither of these solutions are acceptable because they both lead to self-contradictions.

**hot hand fallacy** – An argument commits this fallacy when it requires the false assumption that good or bad luck will last a while. For example, a gambler who wins several games of poker in a row is likely to think she's on a “winning streak” and is more likely than usual to keep winning as a result.

**humanism** – An approach to something that focuses on the importance of human concerns and away from other-worldly concerns. For example, a humanist would likely be unsatisfied with having religious rituals that are meant to honor the gods, but don't benefit human beings in any way. Also see
“secular humanism” and “religious humanism.”

**hypothesis** – A defensible speculative explanation for various phenomena. “Hypotheses” are often contrasted with “theories,” but the term 'theory' tends to be used to describe hypotheses that have been systematically defended and tested without facing significant counter-evidence.

**hypothetical imperative** – Imperatives are commands or requirements. Hypothetical imperatives are things we are required to do in order to fulfill our desires or goals. For example, if you are hungry, then you have a hypothetical imperative to get some food to eat. “Hypothetical imperatives” are often contrasted with “categorical imperatives.”

**hypothetical syllogism** – A rule of inference that states that we can use “if \( a \), then \( b \)” and “if \( b \), then \( c \)” to validly conclude “if \( a \), then \( c \).” (“\( a \)” and “\( b \)” stand for any two propositions.) For example, “if all dogs are mammals, then all dogs are animals. If all dogs are animals, then all dogs are living organisms. Therefore, if all dogs are mammals, then all dogs are living organisms.”

**hypothetico-deductive method** – To start with a hypothesis, consider what conditions or observations would be incompatible with the hypothesis, then set up an experiment that could cause observations that are incompatible with the hypothesis. For example, we could hypothesize that objects continue to move in the same direction until another force acts on it, we could consider that dropping an object on a moving sailing ship should cause the object to continue to move along the path of the sailing ship, and then we can set up an experiment consisting of dropping objects while on sailing ships. The hypothetico-deductive method is a common form of the scientific method.

**I-type proposition** – A proposition with the form “some \( a \) are \( b \).” For example, “some cats are female.”

**idea** – (1) See “Platonic Forms.” (2) According to Immanuel Kant, a concept of reason that can't be fully understood through experience alone. (3) In ordinary language, an “idea” is a concept or thought.

**ideal observer** – A fully-informed and perfectly rational agent that deliberates about a relevant issue in the appropriate way. An ideal observer would have a superior perspective concerning what we should believe concerning each moral issue. It is often thought that ideal observers would determine the social contract that we should agree with, and perhaps all moral truth depends on such a contract. See “ideal observer theory” and “meta-ethical constructivism” for more information.

**ideal observer theory** – A form of meta-ethical constructivism that states that moral statements are true if an ideal observer would agree with them and false when an ideal observer wouldn't agree. For example, an ideal observer would likely agree that it's true that “it's morally wrong to kill people whenever they make you angry.” A potential example is John Rawls's “Justice as Fairness.”

**idealism** – The view that there is ultimately only one kind of stuff, and it's not material (it's not physical). Reality might ultimately be a dream-world or Platonic Forms. See “Platonic Forms” or “subjective idealism” for more information.

**identity theory** – A theory or hypothesis that states that two things are identical. For example, some people think that the psychological states are identical to certain brain states and scientists agree that water is identical to \( \text{H}_2\text{O} \).
ignosticism – The view that we can't meaningfully discuss the existence of gods until an adequate and falsifiable definition of “god” is presented. “Ignosticism” is often taken to be synonymous with “theological noncognitivism.”

illicit affirmative – The fallacy committed when categorical syllogisms have positive premises and a negative conclusion. All categorical syllogisms with this form are logically invalid. For example, “Some dogs are mammals. All mammals are animals. Therefore, some dogs are not animals.”

illicit contraposition – In categorical logic, illicit contraposition refers to a fallacy committed by an invalid argument that switches the terms of a categorical statement and negates them both. There are two types of illicit contraposition: (a) No \(a\) are \(b\). Therefore, no non-\(b\) are non-\(a\). (b) Some \(a\) are \(b\). Therefore, some non-\(b\) are non-\(a\). For example, “Some horses are non-unicorns. Therefore, some unicorns are non-horses.”

illicit conversion – Invalid forms of conversion—invalid ways to switch the terms of a categorical statement. There are two types of illicit conversion: (a) All \(a\) are \(b\). Therefore, all non-\(b\) are non-\(a\). (b) Some \(a\) are not \(b\). Therefore, some \(b\) are not \(a\). For example, the following is an invalid argument—“Some mammals are not dogs. Therefore, some dogs are not mammals.”

illicit major – A fallacy committed by an invalid categorical syllogism when the major term is undistributed in the major premise, but it's distributed in the conclusion. For example, the following argument commits the illicit major fallacy—“All lizards are reptiles; no snakes are lizards; therefore, no snakes are reptiles.” See “distribution” for more information.

illicit minor – A fallacy committed by an invalid categorical syllogism when the minor term is undistributed in the minor premise, but it's distributed in the conclusion. For example, the following argument commits the illicit minor fallacy—“All dogs are mammals; all dogs are animals; therefore, all animals are mammals.” See “distribution” for more information.

illicit negative – The fallacy committed when categorical syllogisms have one or two negative premises and a positive conclusion. All categorical syllogisms with that form are logically invalid. For example, “No fish are mammals. Some mammals are dogs. Therefore, some fish are dogs.”

illicit process – A fallacy committed when categorical syllogisms have a term distributed in the conclusion without being distributed in a premise. All categorical syllogisms that commit this fallacy are logically invalid. For example, “All lizards are reptiles. Some reptiles are lizards. Therefore, all reptiles are lizards.” See “distribution,” “illicit major” and “illicit minor” for more information.

illicit transposition – A synonym for “improper transposition.”

illocutionary act – The act of communication with some intention. For example, to get people to do something, to persuade, to educate, or to make a promise.

illocutionary force – The intended semantic meaning of a speech act. For example, someone could say, “I can see the morning star” without knowing that the morning star is Venus.
illusory superiority – The cognitive bias defined by people's tendency to think they have above average characteristics in all areas. People tend to overestimate their abilities and underestimate the abilities of others. For example, people are likely to think they have a higher IQ than they really do. This bias is related to the “self-serving bias.”

immeasurable – The quality of something that can't be measured or quantified.

immanence – Presence within the physical universe. Some people believe God is immanent. “Immanence” is often contrasted with “transcendence.”

immoral – A synonym for “morally wrong.”

impartial spectator – Someone with a moral point of view who has no bias to grant favoritism to any side of a conflict or competition. The concept of an “impartial spectator” is generally found in ethical systems that lack moral facts and claim that emotion plays an important role in determining right and wrong. It is then said that what is right or wrong depends on what an “impartial spectator” would think is right or wrong in that situation, which could depend on the emotions of the impartial spectator. The “impartial spectator” is often often used as a synonym for the “ideal observer.”

impartiality – Without bias, nonrational preference, or favoritism. Decisions are impartial if they're based on rational principles rather than subjective desires.

imperative – A command or prescription for behavior. See “categorical imperative” and “hypothetical imperative” for more information.

imperfect duty – A duty that can be manifested in a variety of ways and allows for personal choice. For example, Immanuel Kant argues that we have an imperfect duty to develop our talents and help others. It is imperfect because we have to choose how to develop our talents and help others. Additionally, these duties are limited because we would otherwise be required to spend our entire lives relentlessly developing our talents and helping others, but that would be too demanding on us. “Imperfect duties” contrast with “perfect duties.”

impermissible – What is forbidden, or what is not allowed, or what we are obligated not to do. Something is impermissible when it falls short of certain relevant standards. Impermissible beliefs are incompatible with rationality and impermissible actions are incompatible with moral requirements. We are obligated not to believe something that's epistemically impermissible, and we are obligated not to do something that's morally impermissible. “Impermissible” beliefs and actions are often contrasted with “permissible” or “obligatory” ones.

impossibility – The property of being not possible. Impossible things are neither possible, contingent, nor necessary. See “physical impossibility,” “metaphysical impossibility,” and “logical impossibility” for more information.

implication – (1) The logical consequences of various beliefs. For example, the implication of “all cats are mammals” and “if all cats are animals, then all cats have DNA” is “all cats have DNA.” The implication could be said to be implied by the other propositions. (2) A conditional proposition or state of affairs. See “material conditional.” (3) A rule of replacement that states that “if a, then b” and “not-a
and/or b” both mean the same thing. (“a” and “b” stand for any two propositions.) For example, “if dogs are lizards, then dogs are reptiles” means the same thing as “dogs are not lizards, and/or dogs are reptiles.”

**implicit knowledge** – A synonym for “tacit knowledge.”

**improper transposition** – A logically invalid argument with the form “If a, then b. Therefore, if not-a, then not-b.” For example, “If all lizards are mammals, then all lizards are animals. Therefore, if not all lizards are mammals, then not all lizards are animals.” See “transposition” for more information.

**inadvisable** – See “suberogatory.”

**inclusive or** – An “or” used to designate that either one proposition is true or another is true, and they might both be true. The logical form of an inclusive is “either a or b, or a-and-b.” For example, “either Socrates is a man or he has two legs” allows for the possibility that Socrates is both a man and something with two legs, but it doesn't allow for the possibility that Socrates is neither a man nor something with two legs. We often use the term “and/or” to refer to the “inclusive or.” People often contrast the “inclusive or” with the “exclusive or.”

**incommensurability** – A feature of various things that makes it impossible to determine which is superior or overriding. For example, it's impossible to rationally determine if one value is superior to another if they're incommensurable; and it could be impossible to rationally determine if one theory is superior to another if they're incommensurable. We can assume that pleasure and human life both have value, but we might not be able to know for sure if a longer life with less pleasure would be better than a shorter life with more pleasure.

**incompatibilism** – The view that free will and determinism are not compatible. Incompatibilists that believe in free will are “libertarians” and those who reject free will are “hard determinists.”

**inconsistent**: Beliefs or statements that form a contradiction. See “contradiction” for more information.

**incorrigible** – The feature of a proposition that makes the proposition necessarily true simply because it's believed. A plausible example is Rene Descartes's argument, “I think therefore I am.” If we think it, then it seems like it has to be true.

**indefeasible** – An argument that can't be defeated by additional information. Indefeasible arguments are sufficient reasons to believe a conclusion and no additional information could provide a better reason to reject the conclusion. The opposite of “indefeasible” is “defeasible.”

**indeterminism** – The view that not everything is causally determined. A rejection of “determinism.” For example, some philosophers and scientists believe that quantum mechanics is evidence for indeterminism. The behavior of subatomic particles seems to be random and unpredictable.

**indexicals** – Linguistic expressions that shift their reference depending on the context, such as “here,” “now,” and “you.” Indexical reference points to something and does not rely on describing the reference. Our descriptions of objects are often wrong, but we can still talk about the objects by using indexicals. For example, a person would be wrong to describe water as “the type of stuff that's always a
liquid that we use for hydration” insofar as water is not always a liquid, but we could still talk about water by pointing to it.

**indirect proof** – A strategy used in natural deduction used to prove an argument form is logically valid consisting of assuming the premises of an argument are true, but the conclusion is false. If this assumption leads to a contradiction, then the argument form has been proven to be logically valid. For example, consider the argument form “If $A$, then $B$. Therefore, $B$. ” (“$A$,” “$B$,” and “$C$” are specific propositions.) An indirect proof of this argument is the following:

1. Assume the premises are true and the conclusion is false (not-$B$ is true).
2. We know that “if $A$, then $B$” is true, and $B$ is false, so $A$ must be false. (See “modus tollens.”)
3. Now we know that $A$ is true and false.
4. But that's a contradiction, so the original argument form is logically valid.

**induction** – To generalize based on a sample. The view that the future will resemble the past in order to arrive at conclusions. For example, a person who only sees white swans could conclude that all swans are white. Also, a person who knows that bread has always been nutritious could conclude that nearly identical types of bread will still be nutritious tomorrow. Not all inductive reasoning is well-reasoned. See “hasty generalization” for more information. “Induction” is often contrasted with “deduction.”

**inductive arguments** – Arguments that use inductive reasoning to come to conclusions. See “induction” for more information.

**inductive reasoning** – See “induction.”

**infallible** – Free of error and absolutely accurate. The opposite of “infallible” is “fallible.”

**infallibilism** – The view that to know something is to have a true belief that has been justified in a way that guarantees that the belief is true. This view equates knowledge with absolute certainty. The opposite of “fallibilism.”

**inference** – Coming to a conclusion from various propositions. For example, a person who knows that “all birds are warm-blooded” and “all crows are birds” could infer that “all crows are warm-blooded.” See “deduction” and “induction” for more information.

**inferential reasoning** – Reasoning that takes the form of argumentation (premises that give evidence for conclusions). To draw inferences from various beliefs. For example, a person who knows that “all men are mortal” and that “Socrates is a man” can realize that “Socrates is mortal.” Both “deduction” and “induction” are forms of inferential reasoning. Sometimes “inferential reasoning” is contrasted with “noninferential reasoning.”

**infinite regress** – (1) When a proposition requires the support of another proposition, but the second proposition requires the support of a third proposition, on and on forever. The implication is that infinite propositions are required to justify any other proposition. Philosophers often discuss infinite regresses as being an objectionable implication of certain beliefs, but some philosophers argue that not all infinite regresses are “vicious” (a reason to be rejected). For example, the belief that rational beliefs
must be proven to be true requires an infinite regress to justify any proposition, but it is likely
impossible for a person to actually justify a belief this way insofar as it would require infinite
justifications. We would have to justify a proposition with an argument consisting of at least one other
proposition, but then we would have to justify the second proposition with another argument, ad
infinitum. (2) A process with no beginning or end. For example, it's possible that the universe always
existed and always will exist. Assuming every state of the universe causes the future states of the
universe, there is a causal chain consisting of an infinite series of events with no beginning or end.

infinitism – The view that we are never done justifying a belief because every belief should be justified
by an argument, but arguments have more premises that must also be justified. That requires us to
justify our beliefs on and on forever. Imagine that you justify a belief with an argument, such as “we
generally shouldn't punch people because we generally shouldn't hurt people.” Someone could then
require us to justify our premise (that we generally shouldn't hurt people). We could then say that “we
generally shouldn't hurt people because it causes suffering.” Someone could then want to know why
this premise is justified (that hurting people causes suffering). This can go on and on forever. In order
to know something, the infinitist believes that we will have to meet an infinite regress by having infinite
justifications. However, infinitists don't believe that the regress is vicious (a reason to reject their
theory). See “vicious regress” for more information.

informal fallacy – An error in reasoning committed by an argument that is not merely a “formal error”
(being an invalid argument).

informal logic – The domain of logic concerned with natural language rather than argument form.
Informal logic covers critical thinking, argument analysis, informal fallacies, argument identification,
identifying unstated assumptions, and the distinction between deductive and inductive reasoning.
Informal logic generally excludes controversial issues related to the nature of knowledge, justification,
and rationality. “Informal logic” can be contrasted with “formal logic.”

inherent value – Something that could help cause intrinsically good states to exist, but does not
necessarily cause anything intrinsically good to exist. For example, a beautiful painting might be
inherently good insofar as it can help cause intrinsically good experiences, but it might be hidden away
in an attic and never cause any intrinsically good states. “Inherent value” is a type of “extrinsic value.”

innate ideas – Concepts or knowledge that we are born with. For example, Rene Descartes thought that
we are born with the concept of perfection and could innately know that existence is a perfection. If
innate ideas exist, then we have to reject “empiricism.”

innatism – The view that “innate ideas” exist.

inner sense – Our ability to experience states of the mind as opposed to the external world. “Inner
sense” can be contrasted with “outer sense.”

intentional objects – The object that our thoughts or experiences refer to. For example, seeing another
person involves an intentional object outside of our mind—another person. Some intentional objects
are thought to be abstract entities, such as numbers or logical concepts.

inverse – An if/then proposition that is inferred from another if/then proposition. It is valid to conclude
that one if/then proposition can be inferred from another whenever they both mean the same thing. It is valid to conclude from any proposition with the form “if $a$, then $b$” that “if not-$b$, then not-$a$.” For example, we can infer that “if it is false that all dogs are animals, then it is false that all dogs are mammals” from the fact that “if all dogs are mammals, then all dogs are animals.” “Transposition” is the name given to valid rules of inference using an inverse.

**inversion** – To infer an if/then proposition from another if/then proposition. See “inverse” for more information.

**irrealism** – A synonym for “anti-realism.”

**institutional fact** – Facts that exist because of collective attitudes or acceptance. For example, the value of money is an institutional fact and money would have no value if people didn't agree that it has value. Institutions, such as the police force, government, and corporations all depend on institutional facts (because they can only exist due to collective attitudes and acceptance).

**instrumental value** – The usefulness of something. For example, knives have instrumental value for cutting food.

**instrumentalism** – A form of scientific anti-realism that claims that we should use the concept of unobservable scientific entities if they are useful within a theory or model, and we should not concern ourselves with whether such entities actually exist. For example, electrons are an important part of our scientific theories and hypotheses, so instrumentalists would agree that we should continue to talk about electrons and use them when conceptually thinking about our theories. Even so, instrumentalists would not claim that electrons exist.

**intellectual virtues** – Positive characteristics that help us reason well, such as open-mindedness, skepticism, perception, and intuition. “Virtue epistemology” is concerned with our intellectual virtues. “Virtue reliabilism” and “virtue responsibilism” are two different views about intellectual virtues and they require that intellectual virtues cover differing domains.

**intentionality** – Also called “intentionality with a ‘t.’” The ability of thought to refer to or be about things. Philosophers discuss intentionality when they want to understand what it means to refer to objects or how we can refer to objects. Some philosophers also argue that there are “intentional objects” that are abstract or non-existent. (For example, numbers could be abstract intentional objects.)

**intension** – What a term means or how a word refers to things, which is often given in terms of a description. For example, the intension of “the morning star” is “the last star that can be seen in the morning” and the intension of “the evening star” is “the first star we can see at night.” Therefore, they both have a different intension, even though they both refer to Venus. “Intension” is often contrasted with “extension.”

**intensionality** – Also called “intensionality with an 's.'” Intensionality refers to the meaning and reference of words. Sometimes what a word means is different from what it refers to. For example, “the morning star” and “the evening star” both refer to Venus, but the meaning of the terms are different, so they both have a different intension. (The “morning star” is the last star we can see in the morning and the “evening star” is the first star we can see at night.) “Intensionality” can be contrasted with
“extensionality.” See “sense” and “reference” for more information.

**interchange** – In categorical logic, interchange is the act of switching the first and second term of a categorical statement. For example, the interchange of “all men are mortal things” is “all mortal things are men.” See “conversion” for more information.

**internalism** – See “epistemic internalism,” “motivational internalism,” or “semantic internalism.”

**interpretation** – To try to understand information when there are multiple ways of doing so. Information can be ambiguous or vague, so interpretation can be necessary to attempt to understand them properly. For example, a person who sees the Sun set could think that they are seeing the Sun go around the Earth or they could think that they are seeing the Earth spin and turn away from the Sun as a result. See “theory-laden observation” and “ambiguity” for more information.

**intrinsic value** – Something with value just for existing. We might say happiness is “good for its own sake” to reflect that it is good without merely being useful to help us attain some other goal. If something is intrinsically good, then it is something we should try to promote. For example, if human life is intrinsically good, then all things equal, saving lives would plausibly be (a) rational, (b) a good thing to do, and (c) the right thing to do.

**introspection** – An examination of our first-person experiences. For example, we can reflect about what it's like to feel pain or what it's like to see the color green.

**intuition** – A form of justification that is difficult to fully articulate. A belief is strongly intuitive when rejecting it seems absurd (i.e. lead to counterintuitive implications), and a belief is weakly intuitive when accepting it doesn't seem to conflict with any of our strongly intuitive beliefs. For example, we intuitively know that “1+1=2,” even if we can't explain how we know it; and it's counterintuitive to think it's always morally wrong to give to charity. Some philosophers think we can know if a proposition is “self-evident” from intuition.

**intuition pump** – A thought experiment designed to make a certain belief seem more intuitive. For example, Hilary Putnam's Twin Earth thought experiment asks us to imagine that there's another world exactly like the Earth except water is replaced by another chemical that seems to be exactly like water except it's not made of H₂O. He argues that it's intuitive to think that the chemical is not water despite the fact that all our experiences of it could be identical.

**intuitionism** – See “mathematical intuitionism,” “epistemic intuitionism, “meta-ethical intuitionism,” and “Ross's intuitionism.”

**invalid** – See “invalid argument” or “invalid logical system.”

**invalid argument** – An argument form that can have true premises and a false conclusion at the same time. An example of an invalid argument is the following—“Socrates is either a man or a mortal. Socrates is a man. Therefore, Socrates is not a mortal.” “Invalid arguments” are the opposite of “valid arguments.” See “logical form” for more information.

**invalid logical system** – A logical system that has one or more invalid rule of inference. If a logical
system is invalid, then it's possible for true premises to be used with the rules of inference to prove a false conclusion. “Invalid logical systems” are the opposite of “valid logical systems.” See “rules of inference” for more information.

**inverse error** – A synonym for “denying the antecedent.”

**ipso facto** – Latin for “by the fact itself.” It refers to something that is a direct consequence of something else. It means something similar to the phrase “in and of itself.” For example, people who lack drivers licenses *ipso facto* can't legally drive.

**irreducible** – Something is irreducible if it can't be fully understood in terms of something else, or if it's greater than the sum of its parts. We can't find out “it was actually something else.” We found out that water could be reduced to H$_2$O, so water was reducible to facts of chemistry. However, some philosophers argue that minds are irreducible to facts of biology, and that morality is irreducible to social constructs. See “emergentism” for more information.

**is/ought gap** – The difference between what is the case and what ought to be the case. It is/ought gap is discussed by those who believe that morality is a totally different domain from other parts of reality, and/or that we can't know moral facts from non-moral facts.

**jargon** – Technical terminology as used by specialists or experts. Jargon terminology is not defined in terms of common usage—how people generally use the words in everyday life. Instead, they are defined in ways that are convenient for specialists. For example, logicians, philosophers, and other specialists define “valid argument” in terms of an argument form that can't possibly have true premises and a false conclusion at the same time, but most people use the term “valid argument” as a synonym for “good argument.” See “stipulative definition” for more information. “Jargon” can be contrasted with “ordinary language.”

**judgment** – (1) A belief or an attitude towards something. For example, “moral judgment” generally refers to a moral belief (e.g. that stealing is wrong) or to an attitude towards a state of affairs (e.g. disliking stealing). Philosophers argue about whether moral judgments are actually beliefs or attitudes (or both). (2) The capacity to make decisions. “Good judgment” is the ability of some people to make reasonable or virtuous decisions. (3) A decision. “He made a good judgment” means that the decision someone made was reasonable or virtuous.

**justice** – An ethical value concerned with fairness, equality, and rights. Theories of justice are meant to determine how we should structure society, how wealth should be distributed, and what each person deserves.

**Justice as Fairness** – John Rawls's theory of justice that states that people should have the maximal set of rights including a right to certain goods, and that economic and social inequality is only justified if it benefits those who are least-well-off in the society. See “original position,” “veil of ignorance,” “primary social goods,” and the “difference principle” for more information.

**justification** – (1) Evidence or reasons to believe something. Observation is one of the strongest forms of justification; but self-evidence, intuition, and appeals to authority could also be legitimate forms of justification. For example, people can justify their belief that they can feel pain by having actual pain
experiences. (2) The supporting premises of an argument.

**justified belief** – Some philosophers believe that justified beliefs are those that are given a sufficiently good justification, but it is possible that justified beliefs are defensible beliefs that one has no sufficient reason to reject. For example, a typical uncontroversial example of a justified belief is the belief that “1+1=2” but few to no people know how to properly justify this belief using argumentation.

**Kant's Categorical Imperative** – Immanuel Kant's moral theory. The first formulation of his Categorical Imperative states that people should only act when the subjective motivation for the act can be rationally universalized for all people. According to Kant, we should only act based on a subjective principle that we can will as a universal law of nature—everyone would act on the same principle. This guarantees that moral acts are not hypocritical. For example, we shouldn't go around burning people's houses whenever (and just because) they make us angry because we couldn't rationally will that anyone else will be motivated to act in that way. See “categorical imperative” and “maxim” for more information.

**know how** – The ability to do things well, such as playing musical instruments, fighting, building ships, or healing the sick. “Know how” is often contrasted with “theoretical knowledge.”

**knowledge** – Classically defined as “justified true belief,” but many argue that it must be “justified in the right way” or that there might be a fourth factor. An eyewitness who sees a murderer commit the act knows who the murderer is because the belief is justified through observation and the belief is true. However, consider a situation where Sally believes that cows are on the hillside because she mistakes cardboard cutouts of cows as the real thing, and some real cows are on the hillside hiding behind some trees. The belief is justified and true, but some philosophers argue that Sally doesn't actually know that cows are on the hillside.

**laissez-faire** – French for “allow to act.” It generally refers to free market capitalism with little to no government regulation of the market (other than to prevent theft and enforce contracts).

**law of excluded middle** – The logical principle that states that every proposition is true, or the negation is true. This implies that all tautologies are true—propositions with the form “$a$ or not-$a$.” This also implies that no propositions can be true and false at the same time (i.e. contradictions are impossible). The “law of excluded middle” is similar to the “principle of bivalence.”

**law of identity** – The logical principle that states that every proposition or object is identical to itself (i.e. $a=a$).

**law of non-contradiction** – The logical principle that states that contradictions are impossible. It's impossible for a statement to be true and false at the same time (i.e. propositions with the form “$a$ and not-$a$” are always false).

**lex talionis** – Latin for “law of retaliation.” It's often used to refer to the view that a punishment fits the crime if it causes the same injury as the crime, but it can also be used to refer to retributive justifications for punishment in general.

**lexical definition** – A dictionary definition, or the meaning of a term in “common usage.” Dictionary
definitions are often vague or ambiguous because words tend to be used in many different ways by people. “Lexical definitions” can be contrasted with “stipulative definitions.”

**liberalism** – (1) A presumption that freedom is preferable—that liberty is generally a good, and we shouldn't restrict people’s freedom unless we have an overriding reason to do so. Liberalism does not require a specific conception of freedom. For example, not all liberals agree that freedom requires a person to be in control of her own desires. (2) The political and ethical positions of liberals. For example, that the government can help solve social programs, and that it is sometimes just to redistribute wealth from the rich to the poor.

**libertarian free will** – Free will as described by incompatibilists—as being incompatible with determinism. Libertarian free will requires causation that resembles that of Aristotle’s prime mover. People need to be able to cause their actions without being caused to make those actions.

**libertarianism** – See “metaphysical libertarianism” or “political libertarianism.”

**life-affirmation** – To value life no matter what it consists of. Both suffering and death could be considered to be part of life, but a life-affirming attitude would require us to value life as a whole despite these considerations. Life could be considered to be valuable despite death and suffering, or death and suffering could also be considered to have value. Life-affirming morality primarily focuses on goodness and things with value; and badness is primarily understood as things lacking value rather than as having a negative value. According to Friedrich Nietzsche, “master morality” is a type of life-affirming morality. A similar concept to “life-affirmation” is that of “amor fati.”

**life-denying** – To see the whole of life as primarily having negative value. The negative value associated with pain, suffering, or death are seen as being more important than the positive value associated with pleasure, happiness, or life. Life-denying morality primarily focuses on evil or negative value, and goodness is primarily understood as being *not evil* or *not harmful to people*. According to Friedrich Nietzsche, “slave morality” is a type of life-denying morality. The opposite of being “life-affirming.”

**literary theory** – A systematic attempt to understand and interpret literature in a reasonable way.

**loaded question** – (1) A fallacy committed when a question implies a question-begging presumption. For example, consider the following question—“Why do liberals want to destroy families?” This question implies that liberals want to destroy families without question, but it is a controversial accusation to make against liberals, and liberals are unlikely to agree with it. Loaded questions are a version of the “begging the question” fallacy. (2) A question that implies a presumption, but is not necessarily fallacious. For example, a police officer might ask a potential shoplifter, “Why did you steal the clothes?” The shoplifter might have already admitted to stealing the clothes. In that case this question would not be fallacious. However, if the police officer does not know that the person stole the clothes, then the question could be fallacious.

**loaded words** – (1) A fallacy committed when words are used to imply a question-begging presumption or evoke an emotional response. For example, the words 'weed' or 'job-creator' are often used as loaded words. The word 'weed' could be used merely to refer to certain plants that grow quickly and disrupt the equilibrium of a habitat, but it is more often used to imply that a plant is a nuisance and
should be destroyed. It would be fallacious to presume that all plants we don't like ought to be destroyed because such plants could be good for the environment in various ways. The term 'job-creator' could be used to merely refer to someone who creates jobs, but it is more often used to refer to wealthy people with the presumption that wealthy people inherently create jobs by their mere existence. It would be fallacious to presume that all wealthy people create jobs merely by existing because it's a contentious issue. (2) Words used to imply presumptions or evoke an emotional response that are not necessarily fallacious. For example, some political leaders might be truthfully be said to be *tyrants*. The term 'tyrant' is used to refer to a political leader, but it is used to imply that there is something wrong about how a political leader behaves—that the political leader abuses her power. However, it could be fallacious to call a political leader a 'tyrant' in order to presume she abuses her power when it's a contentious issue.

**locutionary act** – A speech act with a surface meaning based on the semantics or language the act is expressed in (as opposed to the intended meaning). For example, a person can sarcastically say, “There is no corruption in the government.” The surface meaning is the literal meaning, but the statement is intended to mean the opposite (that there is corruption in the government).

**logic** – (1) The study of reliable and consistent reasoning. Logic is divided into “formal logic” and “informal logic.” Logic focuses on argument form, validity, consistency, argument identification, argument analysis, and informal fallacies. Logic tends to exclude controversial issues related to the nature of argumentation, justification, rationality, and knowledge. (2) The underlying form and rules to various types of communication. For example, R.M. Hare argues that there is a noncognitive logic involving imperatives. (3) In ordinary language, “logic” often refers to vague concepts involving “good ways of thinking” or “the reasoning someone uses.”

**logical argument** – (1) Rational persuasion. (2) A logically valid argument.

**logical connective** – The words used to connect propositions (or symbols that represent propositions) in formal logic. Various logical connectives are the following: “not” (¬), “and” (∨), “or” (∨), “implies” (→), and “if and only if” (↔). Logical connectives are the only words contained within propositional logic once the content is removed. For example, “Socrates is a man and he is mortal” can be translated into propositional logic as “A ∧ B.” In this case “A” stands for “Socrates is a man” and “B” stands for “Socrates is mortal.”

**logical constant** – Symbols used in formal logic that always mean the same thing. Logical connectives and quantifiers are examples of logical constants. For example, “∧” is a logical connective that means “and.” See “logical connective” and “quantifier” for more information. “Logical constants” can be contrasted with “predicate constants.”

**logical construction** – A concept that refers to something other than particular actual objects. Consider the statement “the average car bought by the average American lasts for five years.” This statement refers to “average cars” and no such car actually exists, and it refers to “average American” and no such person actually exists. Both of these concepts are logical constructions.

**logical contingency** – Propositions that are not determined to be true or false from the rules of formal logic alone. For example, it's logically contingent that the laws of nature exist. Logical contingent propositions are neither tautologies nor contradictions. See “logical modality” for more information.
**logical equivalence** – Two sentences that mean the same thing. For example, “no dogs are lizards” is logically equivalent to “no lizards are dogs.”

**logical form** – The logical form of an argument consists in the truth claims devoid of content. “The sky is blue or red” has the same logical form as “the act of murder is right or wrong.” In both cases we have the form, “a or b.” (“a” and “b” are propositions.) In this case the truth claim is that one proposition is true and/or another proposition is true.

**logical impossibility** – The logical status of contradictions. Logically impossible statements can't be true because of the rules of logic (i.e. because they form a contradiction). For example, it's logically impossible for a person to exist and not exist at the same time. See “logical modality” for more information.

**logical modality** – The status of a proposition or series of propositions concerning the rules of formal logic—logically contingent propositions could be true or false, logically necessary propositions have to be true (are tautologies), and logically impossible propositions have to be false (because they form a contradiction). For example, it is logically contingent that the Earth exists.

**logical necessity** – The logical status of tautologies. Logically necessary statements must be true because of the rules of logic. For example, it's logically necessary that the laws of nature either exist or they don't exist. See “logical modality” for more information.

**logical operator** – A synonym for “logical connective.”

**logical positivism** – A philosophical movement away from speculation and metaphysics, and towards descriptive and conceptual philosophy. Logical positivists accept “verificationism.”

**logical possibility** – (1) A proposition that's either logically contingent or logically necessary. We might say that “it's logically possible that the Earth exists” or we might say that “it's logically possible that the Earth either exists or it doesn't.” (2) Sometimes “logical possibility” is a synonym for “logical modality.”

**logical structure** – A synonym for “logical form.”

**logical truth** – See “tautology.”

**logically valid** – See “valid.”

**logicism** – The view that mathematics is reducible to logic. If logicism is true, we could derive all true mathematical statements from true statements of logic.

**logos** – Greek for “word” or “language.” It is often used to refer to logical argumentation.

**major premise** – The premise of a categorical syllogism containing the “major term” (the second term found in the conclusion). For example, consider the following categorical syllogism—“All dogs are mammals. All mammals are animals. Therefore, all dogs are animals.” In this case the major premise is
“all mammals are animals.”

**major term** – The second term in the conclusion of a categorical syllogism. If the conclusion is “all dogs are mammals,” then the major term is “mammals.”

**mandatory** – A synonym for “obligatory.”

**master morality** – A life-affirming type of moral system primarily focused on goodness, which is primarily understood as superiority, excellence, greatness, strength, and power. Good or superior things are contrasted with “bad things,” which are seen to be inferior, mediocre, and weak. “Master morality” is often contrasted with “slave morality.”

**material cause** – The stuff a thing is made out of. For example, the material cause of a stone statue is the stone it is made out of.

**material conditional** – A proposition that states that one thing is true if something else is true. It has the logical form “If $a$, then $b$.” A material conditional can also be expressed as “$b$ if $a$.” There are two common symbols used for the material conditional in formal logic: “$\subset$” and “$\rightarrow$.” An example of a statement using one of these symbols is “$A \rightarrow B$.”

**material equivalence** – A proposition that states that one thing is true if and only if something else is true. Either both propositions are true or both are false. The logical form of a material equivalence is “$a$ if and only if $b$.” Material equivalence can also be expressed as “$a$ and $-b$ or not-$a$ and $-b$” or “if $a$, then $b$; and if $b$, then $a$.” There are two common symbols used in formal logic for the material equivalence: “$\equiv$” and “$\leftrightarrow$.” An example of a statement using one of these symbols is “$A \leftrightarrow B$.”

**material implication** – A synonym for “material conditional.”

**materialism** – The view that ultimately only matter and energy exists—that there is only one kind of stuff, and everything is causally connected to particles and energy. “Materialism” is often taken as a synonym for “physicalism.”

**mathematical anti-realism** – The view that there are no mathematical facts. For example, what we take to be “true mathematical statements” could be based on a social construction or convention.

**mathematical intuitionism** – The view that mathematics is a construct of our mind and mathematicians are creating the same types of thoughts in each others' minds.

**mathematical platonism** – The view that there is at least one mathematical fact and that there are abstract mathematical entities. For example, numbers can be abstract entities.

**mathematical realism** – The view that there is at least one mathematical fact that is not dependent on a social construction or convention. Many mathematical realists believe that numbers are real (exist as abstract entities) and that it is impossible for the universe to violate mathematical truths.

**matters of fact** – Empirical statements concerning the physical world. They can be known to be true or false from observation. For example, “all dogs are mammals” is a matter of fact. David Hume believed
the only propositions that could be justified were “matters of fact” and “relations of ideas.”

**maxim** – A subjective motivational justification. For example, Lilith punches an enemy who makes her angry might simultaneously assume the action is justified by assuming that anger can justify acts of violence towards others. Immanuel Kant used this concept of a maxim for his moral theory (Kant's Categorical Imperative)—he believed that people should act on a maxim, and that our maxim must be one we can rationally will everyone also has. In that case Lilith shouldn't punch people based on her anger because she probably can't rationally will that everyone else do the same.

**maximin rule** – When deciding on what system to use, the maximin rule requires that we choose the system that has the least-bad possible outcome. It could be described as a risk-adverse rule because some people might want to take a chance at being more wealthy, even if they also have a chance of being more poor.

**maximize expected utility** – (1) The view that states that a person ought to make decisions based on whatever will probably lead to the greatest utility (the most valued or desired state). See “utility theory” and “stochastic dominance” for more information. (2) To make a decision that will probably lead to the most preferable outcome considering all possible outcomes of all possible decisions.

**meaning** – (1) The value, importance, or worth of something. For example, the meaning of life could be to make people happier. (2) The definition or semantics of terms, sentences, or symbols. For example, the meaning of water is “the stuff we drink to hydrate our bodies made of H2O.”

**meaning of life** – What we should do with our life and what “really matters.” If something really matters, then we might have reason to promote it. For example, happiness seems to really matter. If happiness is worthy of being a meaning of life, then we should try to make people happy. Some philosophers believe that the meaning of life is related to what has “intrinsic value.”

**means of production** – Machines and natural resources used for production of goods. For example, oil and oil refineries.

**means to an end** – The method, tools, or process used to accomplish a goal. Sometimes people are said to be inappropriately treated as “means to ends” rather than valued or respected (an “end in themselves”). “Means to an end” is often contrasted with “end in itself.”

**meme** – An idea or practice that has certain qualities that cause it to be spread among several people. For example, religions are said to be memes. Memes are thought to undergo something like natural selection and the most successful memes could be said to survive for being the fittest. The fittest memes tend to have qualities that arouse people's interest to spread the idea or practice to others, but they need not be beneficial to people.

**mental** – See “psychological.”

**mentalism** – (1) In epistemology, mentalism is the view that justifications for beliefs must be some mental state of the person who has the belief. For example, justifications could take the form of propositions that are understood by a person. We could justify that the Sun will probably rise tomorrow by knowing that “the Sun has risen every day of human history; and if the Sun has risen every day of
human history, then the Sun will probably rise tomorrow.” (2) In philosophy of mind, mentalism is the view that the mind is capable of interacting with the body and can cause the body to move in various ways. For example, a person who decides to raise her arm could raise her arm as a result.

**merology** – The philosophical study of parts and wholes. Merology concerns what the parts are of various things and how various parts and wholes relate. One merological question is whether there are atoms (smallest indivisible parts) of all objects, or whether all objects are ultimately gunky (can be split into smaller pieces indefinitely). Another merological question is whether or not an object is the same object if we replace all of its parts with functionally equivalent parts, such as if we replaced all the parts of a pirate ship with new but nearly identical parts.

**meronomy** – A type of hierarchy dealing with part-whole relationships. For example, protons are parts of molecules.

**metaethical constructivism** – The view that moral right and wrong are determined by what ideally rational agents would agree with (if they deliberated in an ideal fashion). This can be based on a “social contract theory”—we should accept the moral rules that would be provided by a social contract if it's what rational people would endorse in ideal conditions.

**metaethical intuitionism** – The view that moral facts are not identical to nonmoral states and that we can know about moral facts through intuition. Moral intuitionists typically think that observation is insufficient to attain moral knowledge, so the intuition involved is a nonempirical form of intuition. Some philosophers object to moral intuitionism because they don't think intuition is a reliable form of justification. See “intuition” for more information.

**metaethics** – Philosophical inquiry involving ethical concepts, the potential moral reality behind ethical concepts, how we can know anything about ethics (i.e. moral epistemology), and moral psychology. Metaethical questions include: “Is anything good?” and “What does 'good' mean?”

**metalanguage** – Language or symbols used to discuss language. Formal logical systems are metalanguages. See “formal logic” for more information.

**metalinguistic variable** – A synonym for “metavariable.”

**metaphilosophy** – Systematic examination and speculation concerning the nature of philosophy, and what philosophy ought to be. For example, Pierre Hadot argues that the term 'philosophy' ought to refer to a way of life involving an attempt to become more wise and virtuous rather than as expertise related to argumentation regarding various topics traditionally debated by philosophers.

**metaphysical contingency** – What might or might not exist concerning reality itself assuming that the laws of nature could have been different. Metaphysical contingency can be said to refer to “what is true in some possible worlds, but not others.” For example, the existence of water is plausibly metaphysically contingent—water might not exist if the laws of physics were different. See “metaphysical modality” for more information.

**metaphysical impossibility** – What can't exist concerning reality itself assuming that the laws of nature could have been different. Metaphysically impossible statements refer to “what is not true in any
possible world.” For example, it would be plausible that it's metaphysically impossible for a person to exist and not exist at the same time. See “metaphysical modality” for more information.

**metaphysical libertarianism** – The view that we have free will and that free will is incompatible with determinism. Libertarianism requires that free will to be something like Aristotle's notion of a first cause or prime mover. The free decisions people make can cause things to happen, but nothing can cause our decisions.

**metaphysical modality** – A range of modal categories concerning reality as it exists assuming that the laws of nature could have been different. The range includes metaphysical contingency, possibility, necessity, and impossibility. Metaphysical modality can be described as the status of a statement or series of statements considering all possible worlds—A statement is metaphysically contingent if it's true in some possible worlds and false in others, possible if it is true in some possible worlds, metaphysically necessary if it is true in all possible worlds, and metaphysically impossible if it's false in all possible worlds. For example, some philosophers argue that “water is H₂O” is a metaphysically necessary statement. Assuming they are right, if we found a world with something exactly like water (tastes the same, boils at the same temperature, and nourishes the body) but it is made of some other chemical, then it would not really be water.

**metaphysical naturalism** – (1) The view that only natural stuff exists, which is a type of “physicalism.” Natural stuff is often taken to be stuff found in the physical world and natural facts are often assumed to be nonmoral and non-psychological. Naturalists reject the existence of non-natural facts (perhaps mathematical facts) as well as supernatural facts (perhaps facts related to gods or ghosts). (2) The view that the only stuff that exists is stuff described by science. Not all philosophers agree that the reality described by science is merely physical reality.

**metaphysical necessity** – What must be true or exist concerning reality itself assuming that the laws of nature could have been different. Metaphysically necessary statements refer to “what is true in every possible world.” For example, it is plausible that tautologies are metaphysically necessary and are true in every possible world. See “metaphysical modality” for more information.

**metaphysical possibility** – (1) The status of a statement being metaphysically possible (non-impossible) as opposed to a range of modal categories. This status of possibility refers to what could be contingently true or necessarily true about reality assuming that the laws of nature could have been different. A statement is metaphysically possible if it is “true in at least one possible world.” For example, it is metaphysically possible that the H₂O exists because there is at least one possible world where it exists—the one we exist in. (2) Sometimes “metaphysical possibility” is used as a synonym for “metaphysical modality.”

**metaphysics** – Philosophical study of reality. For example, some people think that reality as it's described by physicists is ultimately the only real part of the universe.

**metavariables** – A symbol or variable that represents something within another language. For example, a logical system could have various either/or statements. “A or B” and “A and B, or C” are two different either/or statements within a logical system. We could then use metavariables to talk about all either/or statements that could be stated within the logical system. For example, “a or b” would represent all either/or statements of our logical language assuming that the lower-case letters are metavariables.
**middle term** – The term of a categorical syllogism that doesn't appear in the conclusion, but it appears in both premises. For example, consider the categorical syllogism, “All dogs are mammals; all mammals are animals; therefore, all dogs are animals.” In this case “mammals” is the middle term because it's not in the conclusion, but it appears in both premises.

**mind** – The part of a being that has thoughts, qualia, semantics, and intentionality. The mind might not be an object in and of itself, but merely refer to the psychological activity within a being. The mind is often contrasted with the body, but some philosophers argue that the mind could be part of certain living bodies. For example, some philosophers believe that psychological activity could be identical to certain kinds of brain activity.

**mind-body dualism** – See “dualism.”

**mind-body problem** – The difficulty of knowing how the body and mind interact. Psychological states seem quite different from physical states, so philosophers speculate about how they both relate. Some philosophers argue that the mind can't cause the body to do anything at all. Philosophers often think that the mind-body problem is a good reason to reject substance dualism insofar as it seems to imply that the mind and body can't interact (insofar as they would then be totally different kinds of stuff). One solution to the mind-body problem is “emergentism.”

**mind dependent** – Something that can only exist if a mind exists (or if psychological phenomena exists). For example, money wouldn't exist if no psychological phenomena exists.

**minor premise** – The premise of a categorical syllogism that contains the minor term (the first term found in the conclusion. For example, consider the following categorical syllogism—“All dogs are mammals. All mammals are animals. Therefore, all dogs are animals.” In this case the minor premise is “all dogs are mammals.”

**minor term** – The first term of the conclusion of a categorical syllogism. For example, if the conclusion is “all dogs are mammals,” then the minor term is “dogs.”

**missing conclusion** – A synonym for “unstated conclusion.”

**missing premise** – A synonym for “unstated premise.”

**modal logic** – Logic that uses modal quantifiers or quantifiers of some other non-classical type. For example, deontic quantifiers are sometimes used in modal logic. See “modal quantifier” for more information.

**modal quantifier** – Modal quantifiers allow us to state when a proposition is possible or necessary. The two main symbols are “□” for necessary and “◊” for possible. For example, “□p” would mean that p is necessary. (“p” is a proposition). “◊p” could refer to the proposition, “Necessarily, dogs are mammals.”

**modality** – Concerning quantification (modal quantifiers), such as necessity and possibility. See “metaphysical modality,” “physical modality,” or “logical modality” for more information.
mode – (1) A nonessential property of a substance. For example, “spherical.” See “substance” for more information. (2) A form of something. For example, a stone statue can have the form of a human being. (3) A way of doing something. For example, traveling by car is a mode of transportation.

modus ponens – Latin for “the way that affirms by affirming.” It is used to refer to the following valid logical form—“If $a$, then $b$; $a$; therefore, $b$.” An argument with this form is “If dogs are mammals, then dogs are animals. Dogs are mammals. Therefore, dogs are animals.”

modus tollens – Latin for “the way that denies by denying.” It is used to refer to the valid logical form—“If $a$, then $b$; not-$b$; therefore, not $a$.” An argument with this form is “If dogs are lizards, then dogs are reptiles. Dogs are not reptiles. Therefore, dogs are not lizards.”

monad – (1) Literally means a “unit.” (2) According to the Pythagoreans, the “Monad” is the divine or the first thing to exist. (3) According to Platonists, the “Monad” is another name for “the Good.” (4) According to Gottfried Wilhelm Leibniz, monads are elementary particles (the building blocks of physical reality) that have no material existence of their own, and move according to an internal principle rather than from a physical interaction or external forces.

monadic predicate – A predicate that only applies to one thing. For example, “$x$ is mortal” could be stated as “$Mx$.” (“$M$” stands for “is mortal,” and “$x$” stands for anything.)

monadic predicate logic – A system of predicate logic that can express monadic predicates, but can't express polyadic predicates. See “monadic predicate” and “predicate logic” for more information.

monarchy – A political system defined by the supreme rule of a king or queen.

monism – (1) The metaphysical position that reality ultimately derives into one kind of thing. For example, materialists think that physical reality is the ultimate reality; and some idealists think that the mind is the ultimate reality. “Monism” is often contrasted with “dualism.” (2) A view that only one thing is ultimately relevant to a subject or issue.

monopoly – Exclusive power or control over something. For example, the government has a monopoly over violence and no one is generally allowed to use violence without government approval.

monotheism – The view that one god exists. “Monotheism” can be contrasted with “polytheism.”

Monte Carlo fallacy – A synonym for “gambler's fallacy.”

moral absolutism – (1) The view that morally right and wrong acts do not depend on context. Something is always right or always wrong no matter what situation people are in. (2) In ordinary language, “moral absolutism” often refers to something similar to “moral realism” (as opposed to “moral relativism.”)

moral anti-realism – The rejection of moral realism. The belief that intrinsic values don't exist, and that moral facts don't exist. Some moral anti-realists think that there are moral truths, but such truths would not be based on facts about the world. Instead, they could be based on a social contract or
moral atomism – See “moral generalism.”

moral constructivism – The view that moral truths consist in psychological facts, agreements, or some kind of an ideal based upon one or both of them. See “constructivism” or “meta-ethical constructivism” for more information.

moral epistemology – The systematic study of moral knowledge, rationality, and justification. For example, some philosophers argue that we can know if an action is right or wrong by considering intuitive or axiomatic moral principles.

moral externalism – See “motivational externalism.”

moral generalism – The view that there are abstract moral criteria (rules, duties, or values) that can be applied in every relevant situation to determine what we ought to do. Moral generalists often believe that analogies can be used to discover what makes an action right or wrong. For example, kicking and punching are both analogous insofar as we could use either to try to hurt people, and they both tend to be wrong insofar as hurting people is bad. “Moral generalism” is often contrasted with “moral particularism.”

moral holism – A synonym for “moral particularism.”

moral internalism – A synonym for “motivational internalism.”

moral intuitionism – See “meta-ethical intuitionism” or “Ross's intuitionism.”

moral naturalism – The moral realist meta-ethical view that there are moral facts that are either identical to or emergent from nonmoral facts of some kind. For example, actions could be wrong insofar as they cause states of affairs with greater suffering and less happiness than the alternatives. Some philosophers reject moral naturalism based of the fact that we can easily question any proposed identity relation. Actions that we consider wrong are not necessarily those that cause more suffering and less happiness than the alternatives, and some people don't think that's all it means to say that an action is wrong.

moral particularism – The view that there are no abstract moral criteria (rules, duties, or values) that can be applied in every relevant situation to determine what we ought to do. Instead, what we ought to do depends on the circumstance we are in without being determined by such things. Moral particularists sometimes agree that rules of thumb and analogies can be useful, but they don't think we can discover rational criteria that determines what we ought to do in every situation. For example, kicking and punching are both analogous insofar as we could do either to try to hurt people, but the particularist will argue that it could be morally right to try to hurt people in some situations. Ross's intuitionism is a plausible example of moral particularism. “Moral particularism” is often contrasted with “moral generalism.”

moral psychology – The philosophical study concerning the intersection between ethics and psychology, and primarily concerned with moral motivation. For example, some philosophers have
argued that sympathy or empathy is needed to be consistently motivated to do the right thing.

**moral rationalization** – Arguments used in an attempt to justify, excuse, or downplay the importance of immoral behavior. Moral rationalizations may superficially appear to be genuinely good arguments, but they fail on close examination. For example, many people deny that they are responsible for the harm they cause when they were one person out of many who were needed to cause harm, such as certain corporate employees. They are likely to say they are like a “cog in a machine” or “just doing my job.” See “rationalization” for more information.

**moral realism** – The belief that moral facts exist, and that true moral propositions are true because of moral facts—not merely true because of a social contract, convention, popular opinion, or agreement. Many moral realists believe that intrinsic values exist. A moral realist could say, “Murder is wrong because human life has intrinsic value, not merely because you believe that it's wrong.” Some philosophers argue that moral realism requires a rejection of “constructivism” and “subjectivism,” but that is a contentious issue.

**moral responsibility** – See “responsibility.”

**moral relativism** – See “cultural relativism.”

**moral sense theory** – See “moral sentimentalism.”

**moral sentimentalism** – A philosophical position that takes reasoning to be less important for moral judgment than our emotions, empathy, or sympathy. Moral sentimentalists tend to think that morality somehow concerns our emotions rather than facts.

**moral theories** – A synonym for “normative theories of ethics.”

**moral worth** – (1) The degree an action is morally praiseworthy or blameworthy. For example, a morally responsible person who commits murder has done something “morally blameworthy.” (2) According to Immanuel Kant, an action has moral worth (or perhaps moral relevance) when it is caused by a rational motivation that is guided by ethical principles.

**morality** – The field concerning values, right and wrong actions, virtue, and what we ought to do.

**morally right** – (1) Behavior that's consistent with moral requirements. For example, it could be considered to be morally right to refuse to attack people who make us angry. What is “morally right” is often contrasted with what's “morally wrong.” (2) Preferable moral behavior. For example, to give to charity.

**morally wrong** – Immoral. Behavior that's inconsistent with moral requirements. For example, it is morally wrong to kill people just because they make you angry. What's “morally wrong” is often contrasted with what's “morally right.”

**motivational externalism** – The view that moral judgments are not intrinsically motivating. A person could think something is wrong but still be motivated to do that thing, even when in a relevant situation. For example, a sociopath might believe that harming other people is wrong but have no
motivation against harming others. The opposite of “motivational externalism” is “motivational internalism.”

**motivational internalism** – The view that moral judgments are intrinsically motivating. A person can't think something is right without having at least some motivation for doing that thing (when in a relevant situation). For example, we are likely to doubt the sincerity of a person who says that stealing is wrong but absolutely loves stealing and feels no motivation to refuse to steal. The opposite of “motivational internalism” is “motivational externalism.”

**multiple realizability** – When more than one state constitutes or brings about another state. For example, psychological states seem like they are multiply realizable—two different brain states can correlate with the same psychological state for different people. Perhaps both a sophisticated machine and a human brain could have the same psychological states.

**Münchhausen Trilemma** – A philosophical problem that presents three possible types of reasoning we could use to justify beliefs: (a) circular reasoning (beliefs must justify one another), (b) regressive reasoning (beliefs must all be justified by other arguments on and on forever) or (c) axiomatic reasoning (some beliefs are self-evident). It is often thought that knowledge consists of justified true beliefs that must be justified by an argument or axiom. The problem is that all three of the possible ways to justify beliefs that constitute knowledge seem to have problems. Circular arguments are fallacious, regressive reasoning can never be completed by people (who are finite beings), and what we think of as axioms can always be questioned and are often proven to be false at some point.

**natural deduction** – A method used to prove deductive argument forms to be valid. Natural deduction uses rules of inference and rules of equivalence. For example, consider the argument form “A and (B and C). Therefore, A.” (“A,” “B,” and “C” are three specific propositions.) The rule of implication known as “simplification” says we can take a premise with the form “a and b” to conclude “a.” (“a” and “b” stand for any two propositions.) We can use this rule to use “A and (B and C)” as a premise to conclude “A.” Therefore, that argument is logically valid.

**natural language** – Language as it is spoken. Natural language includes both specialized language used by experts and ordinary language. “Natural language” can be contrasted with “formal languages.”

**natural theology** – The systematic study of gods using secular philosophical argumentation. For example, the argument for God's existence that states that the universe must have a first cause is part of natural theology. “Natural theology” is often contrasted with “revealed theology.”

**naturalism** – See “epistemic naturalism” or “metaphysical naturalism.”

**naturalistic fallacy** – (1) A fallacious form of argument that assumes that the fact that something is the case means it ought to be the case. For example, to argue that people should be selfish because they are selfish. (2) A fallacious form of argument that concludes that goodness is identical with some natural property or state of affairs just because goodness is always accompanied by the natural property or state of affairs. For example, to argue that pleasure and goodness are identical just based on the belief that pleasure always accompanies goodness. Some philosophers—such as moral identity theorists—argue that this type of argument isn't necessarily fallacious.
necessary condition – Something that must be true for something else to be true is a necessary condition. For example, a necessary condition of being a dog is being a mammal. “Necessary conditions” can be contrasted with “sufficient conditions.”

necessary truth – Statements that have to be true no matter what states of affairs there are or could be. For example, “1+1=2” is a necessary truth. See “physical necessity,” “metaphysical necessity,” and “logical necessity” for more information.

necessity – The property of being unable to be any other way. See “physical necessity,” “metaphysical necessity,” and “logical necessity” for more information.

negation – A false proposition or what we say is not the case. The logical form of a negation is “not-a.” For example, “not all people are scientists” is the negation of “all people are scientists.”

negative argument – See “objection.”

negative categorical proposition – A categorical proposition that has the form “not all a are b” or “some a are not b.” For example, “some mammals are not dogs.”

negative conclusion – A categorical proposition used as a conclusion with the form “no a are b” or “some a are not b.” For example, “no dogs are reptiles.”

negative liberty – Freedom from constraints. To be in chains or imprisoned would be to lack negative liberty. Sometimes negative liberty is related to specific types of freedom. For example, we have the negative freedom to live insofar as others are not allowed to kill us. “Negative liberty” is often contrasted with “positive liberty.”

negative premise – A categorical proposition used as a premise with the form “no a are b” or “some a are not b.” For example, “some animals are not mammals.”

negative rights – Rights to be left alone. For example, freedom of speech is a negative right that means that no one can stop you from saying things (within the bounds of reason). Negative rights can be contrasted with “positive rights.”

neutral monism – The view that reality is ultimately neither mental nor physical although there could be mental and physical properties.

naive realism – The view that we perceive reality as it exists. See “realism” and “thing in itself” for more information.

nihilism – (1) The view that intrinsic values don't exist or that moral facts don't exist. See “moral anti-realism.” (2) A position that denies the existence of something. For example, an epistemic nihilists would deny that there are epistemic facts—that there are facts related to being reasonable, to having justifications, or to having knowledge (other than simply what is true by convention). (3) A synonym for “error theory.”

no true Scotsman – A fallacy committed when someone stacks the deck by defining terms in a
convenient way in order to win an argument. It's often used to try to win an argument by definition. For example, a person could say that all religious people are irrational, and we might then mention a religious person who is not irrational (perhaps Marsha). Someone could then claim that Marsha isn't really religious because religious people are irrational by definition.

**noëtic structure** – Everything a person believes and the relationship between all of her beliefs. Also, noëtic structure involves how confident a person is that various statements could be true and the strength in which each belief influences other beliefs. For example, finding out that there is no external reality would have a dramatic effect on our noëtic structure insofar as we are very confident that an external reality exists and many of our beliefs depend on that belief. Perhaps hurting “other human beings” would no longer be immoral insofar as they don't really exist anyway. See “worldview” for more information.

**nominalism** – (1) The view that there are no universals and only particulars exist. That names of various kinds of entities exist in name only out of convenience and our understanding of those things are based on generalizations or abstraction. See “universal” for more information. (2) The view that Platonic Forms don't exist.

**non causa pro causa** – Latin for “non-cause for cause” and also known as the “false cause” fallacy. This is a fallacy that is committed by arguments that conclude that a cause exists when the premises don't sufficiently justify the conclusion. See “cum hoc ergo propter hoc,” “post hoc ergo propter hoc,” and “hasty generalization” for more information.

**non-compound proposition** – A sentence that can't be broken into two or more propositions. For example, “Socrates is a man.” “Non-compound propositions” can be contrasted to “compound propositions.”

**non-compound sentence** – See “non-compound proposition.”

**non-discursive concept** – According to Immanuel Kant, it's a concept known from “pure intuition” (known a priori without depending on experience). For example, space and time. According to Kant, we couldn't even have experiences of the world without already interpreting our experiences in terms of space and time. “Non-discursive concepts” can be contrasted with “discursive concepts.”

**non-discursive reasoning** – See “non-inferential reasoning.”

**non-inferential reasoning** – Intuitive or contemplative reasoning that does not involve argumentation (conclusions derived from premises). Non-inferential reasoning can require contemplation in order to discover what beliefs are self-evident. For example, Aristotle believes that we can know the axioms of logic through non-inferential reasoning. “Non-inferential reasoning” is often contrasted with “inferential reasoning.”

**non sequitur** – Latin for “it does not follow.” (1) A statement that is made that's not related to the preceding conversation. (2) A logically invalid argument, i.e. the conclusion doesn't follow from the premises.

**noncognitivism** – (1) The view that some domain lacks true and false judgments. The rejection of
cognitivism. For example, epistemological non-cognitivism is the view that judgments concerning rationality, justification, and knowledge are neither true nor false. For example, the judgment that we know that there are laws of nature might merely express our approval of such a belief. (2) Metaethical non-cognitivism is the anti-realist view that states that moral judgments are neither true nor false. For example, emotivists believe that moral judgments are expressions of our emotions. Saying, “stealing is wrong,” might be expressing one's frustration concerning stealing without saying it is literally true.

**nonfactual truth** – Statements that are true or false, but are not meant to refer to reality or facts. For example, it is true that unicorns are mammals and that Sherlock Holmes is a detective who lives at 221B Baker Street, but it's only true within a fictional domain—it's not true about factual reality. It could be argued that “all bachelors are unmarried” by definition, and such a truth could also be nonfactual. Moreover, the existence of money could also be nonfactual insofar as it depends on our attitudes and customs rather than to facts that directly relate to reality.

**nonmoral** – Something that is neither morally right nor morally wrong. For example, mathematics is nonmoral, and a person who scratches an itch is acting nonmorally. “Nonmoral” can be contrasted with “amoral.”

**nonrational evidence** – (1) Evidence that is not related to induction or deductive reasoning. For example, intuitive evidence or self-evidence. See “non-inferential reasoning” for more information.

**nonrational persuasion** – Fallacious and manipulative forms of persuasion. Nonrational persuasion does not always take the form of an argument, and it often appeals to our biases. For example, the news could continually have stories about how our enemies harm innocent people to give us the impression that our enemies are evil. This is similar to the “one-sidedness fallacy,” but no actual argument needs to be presented. People are likely to jump to conclusions on their own.

**norm** – A principle, imperative, standard, or prescription concerning preferable or required behavior.

**normative** – A category that is primarily concerned with standards, ideals, or guiding principles. Normative constraints are often thought to be action-guiding or motivational. “Normative” is often equated with “prescriptive.”

**normative theories of ethics** – Moral theories that tell us how we can determine the difference between right and wrong actions, determine what we ought to do, or determine what we ought to be. Normative theories of ethics are also concerned with ideals, values, and virtues. Normative theories of ethics are central to “applied ethics.”

**normalization** – Values and behavior are normalized when they become stable within a group of people, generally by excluding the alternatives. Normalization is likely to occur when the interests of various people converge and the values and behavior in question are mutually beneficial for the people. However, normalization can harm other people (especially a minority) that does not mutually benefit along with the others. For example, a minority could be used as a servant class because it benefits the majority, but it would give the minorities a disadvantage insofar as it limits their opportunities.

**noumenal world** – The world as it really exists in and of itself. Our understanding of reality is often thought to be corrupted by flawed interpretation and perception. The “noumenal world” can be
contrasted with the “phenomenal world.”

**noumenon** – An object or reality that exists separately from experience and can't be known through the senses. “Plato's Forms” are a possible example of noumenon.

**nous** – (1) Greek for “common sense, understanding, or intellect.” It refers to our capacity to reason. (2) According to Neoplatonists, “Nous” is the mind or intellect of “the Good.”

**O-type proposition** – A proposition with the form “some $a$ are not-$b$.” For example, “some cats are not female.”

**obligation** – A requirement of rationality, ethics, or some other normative domain. A plausible example is that we are obligated not to kill other people just because they make us angry. See “duty” for more information.

**obligatory** – Beliefs that are rationally required, actions that are morally required, or a requirement of some other normative domain. “Obligatory” requirements are often contrasted with the “supererogatory” and “permissible” categories.

**objection** – An argument that opposes a belief or another argument. They're meant to give us a reason to disagree with the belief or argument. For example, we could object to the belief that *it's okay to kill others who make us angry* by saying, “You don't want others to kill you just because you make them angry, so you shouldn't kill them just because they make you angry either.” “Objections” are often contrasted with “positive arguments.”

**objective certainty** – A synonym for “epistemic certainty.”

**objective ought** – What a person should do based on few (or no) constraints on the person's knowledge. What we objectively ought to do is often thought to be based on the actual effects our behavior has. For example, utilitarians often say that we ought to do whatever maximizes happiness, even if we have no idea what that is. A person might try to help others by sharing food and accidentally give others food poisoning, and utilitarians might say that the person objectively ought not to have done so, even though the person might have done what was likely to help others from her point of view. “Objective ought” can be contrasted with “subjective ought.”

**objective reason** – A synonym for “agent-neutral reason.”

**objective right and wrong** – What is right or wrong considering few (or no) constraints of a person's knowledge. What is considered to be objectively right or wrong is often thought to be based on the actual effects our behavior has. For example, if you win the lottery, then there's a sense that buying a lottery ticket was the “objectively right” thing to do, even though you had no reason to expect to win. “Objective right and wrong” can be contrasted with “subjective right and wrong.”

**objectivity** – See “ontological objectivity” or “epistemic objectivity.”

**obverse** – A categorical proposition is the obverse of another categorical proposition when it has a certain different quantification and a negated second term. There are four different forms of obversion:
(a) The obverse of “all a are b” is “no a are non-b.” (b) The obverse of “no a are b” is “all a are non-b.” (c) The obverse of “some a are b” is “some a are not non-b.” (d) The obverse of “some a are not b” is “some a are non-b.” It is always valid to infer the obverse of a categorical propositions because the two propositions mean the same thing.

**obversion** – To infer the obverse of a categorical proposition. See “obverse” for more information.

**Occam's razor** – The view that we shouldn't accept an otherwise equally good explanation if it is more complicated, often stated as “we shouldn't multiply entities beyond necessity.” Occam's razor could be taken to be a reason to believe an explanation that's simpler than the alternatives, but it is not an overriding reason to believe an explanation. For example, sometimes ghosts might be an explanation for why objects move around in a house, but Occam's razor might be a good reason for us to reject the existence of ghosts anyway.

**oligarchy** – A political system where the rulers are wealthy people.

**omnibenevolent** – All-good.

**omnipotent** – All-powerful.

**omnipresent** – Existing everywhere.

**omniscient** – All-knowing.

**The One** – A Neoplatonist term for “the Good.”

**one-sidedness** – (1) A fallacy committed by an argument that presents reasons to believe something while ignoring or marginalizing the reasons against believing it. For example, a person selling a vacuum cleaner could tell us how it can pick metal objects off the floor, but omit mentioning that it tends to break after being used a few times. “One-sidedness” is also known as “selective evidence” and highly related to “cherry picking” and “quoting out of context.” (2) To be incapable or unwilling to see things from more than one reasonable point of view.

**ontological naturalism** – See “metaphysical naturalism.”

**ontological objectivity** – refers to non-mental existence (and minds), but not what exists as part of the mind (e.g. thoughts and feelings). In this sense rocks are objective, but pain is not. “Ontological objectivity” can be contrasted with “ontological subjectivity.”

**ontological randomness** – When something happens that could not possibly be reliably predicted because it could have happened otherwise. If anything ontologically random happens, then determinism is false—there are events that occur that are not sufficiently caused to happen due to the laws of nature and state of affairs. Ontological randomness can be contrasted with “determined” events and the acts of “free will.” It is generally thought that acts of free will are not random (and perhaps they're not determined either). Imagine that you time travel to the past without changing anything, and all people make the same decisions, but a different person won the lottery as a result. That would indicate that there are elements of randomness that effect reality. “Ontological randomness” can be contrasted with
“epistemic randomness.”

**ontological subjectivity** – Mental existence—anything that exists as part of our mind, such as thoughts and feelings. “Ontological subjectivity” can be contrasted with “ontological objectivity.”

**ontology** – The study of “being” as such—what is the case or the ultimate part of reality. It's sometimes used to be a synonym for “metaphysics.”

**ordinary language** – Language as it is used by people in everyday life. Words in ordinary language are generally defined in terms of “common usage” (i.e. how people tend to use the word). “Ordinary language” can be contrasted with “formal language” and “jargon.”

**original position** – A situation within John Rawls's theory of justice that sets ideal conditions for deliberation concerning the production of a social contract. Rawls argues that rational principles for justice are decided within the original position under a “veil of ignorance.” He argues that a result of the people's risk-aversion would be the adoption of the “maximin rule.” (Not to be confused with a maximum rule.)

**ostensible meaning** – The surface meaning of a speech act without any involvement of “mind reading” or psychological understanding. For example, someone might say, “I love chocolate” in a sarcastic tone. The ostensible meaning is stated, but the intended meaning is the opposite.

**ought** – Equivalent with “should.” What ought to exist is what should exist, what ought to be done is what should be done. It's *better* to do what ought to be done. Many philosophers argue that if something has intrinsic value, then we ought to promote that value. For example, we ought to give to charity when it will help people who would otherwise suffer. What ought to be the case is often contrasted with what is the case—what state of affairs actually exists. See the “is/ought gap” for more information.

**ousia** – Greek for “being,” “substance,” or “essence.”

**outer sense** – Sense perception used to experience the external world, such as through the five senses (touch, taste, sound, smell, and sight). See “perception” for more information. “Outer sense” can be contrasted with “inner sense.”

**overconfidence effect** – The cognitive bias defined by the tendency of people to systematically have a false sense of certainty. For example, we systematically think our answers on tests are more likely true than they really are. We might think every answer we give on a test has a 90% chance of being correct when we actually only got 50% of the correct answers.

**overdetermination** – When there's more than one sufficient cause for a state of affairs. For example, one grenade explosion would be sufficient to kill a person, and two simultaneous grenade explosions could overdetermine someone's death. Overdetermination is a potential problem with some interactionist theories of the mind-body interaction—If physical reality can sufficiently determine how the body will move, then the idea of the mind also causing the body to move would be an example of overdetermination.
**overman** – A superior kind of human being. Friedrich Nietzsche argues that we should try to become or create an “overman”—a person who will create new values and be life-affirming to the point of desiring an “eternal return.”

**overprecision** – A fallacy committed by an argument that requires precise information for the premises in order to reach the conclusion, and it uses misleadingly precise premises in order to do so. For example, a person was told that a frozen mammoth was five thousand years old five years ago, so she might insist that the frozen mammoth is now “5,005 years old.”

**pantheism** – The view that god is the universe.

**panpsychism** – The view that all physical things or particles have a psychological element.

**paradigm** – A comprehensive understanding of a domain or a comprehensive worldview. There could theoretically be two paradigms that proponents claim to be “more justified” than the other because each paradigm could have different principles that determine what counts as good justification. Paradigms are thought to influence how we interpret our experiences and how we will respond to our observations.

**paradox** – (1) An apparent contradiction that challenges our assumptions. (2) A statement or group of statements that leads to a contradiction or defies logic. A paradox could contain a statement that can't be true or false because they both lead to a contradiction. Consider the following sentence: “This sentence is false.” If it's false, then it's true. If it's true, then it's false. There's a contradiction either way.

**parsimony** – Metaphysical simplicity, or having few entities in a metaphysical system. See “Occam's razor” for more information.

**particular** – Actual concrete objects and things in the world. For example, a rock, a dog, and a person.

**partners in crime** – A synonym for “partners in guilt.”

**partners in guilt** – A defense of a theory or belief against an objection that points out that the alternatives face the exact same objection. Sometimes one theory or hypothesis can't be rejected on some basis because the alternative theories or beliefs have exactly the same flaws. For example, Einstein's theory of physics faces certain anomalies, such as dark energy; but all alternative theories of physics we know about have even more anomalies.

**partonomy** – A synonym for “meronomy.”

**per se** – A Latin phrase meaning “in itself” or “without qualification.” People generally use the phrase “per se” to refer to what something is not. (e.g. “The President is not a communist *per se*, but he does want to increase taxes.”)

**perception** – Experiences caused by the five senses—sight, sound, touch, taste, and smell. Perception causes unified experiences that we interpret as giving us information about the world.

**perdurance theory** – See “perdurantism.”
**perdurantism** – The view of persistence and identity that states that a persisting thing only partly exists at any given moment, and its entire existence must be understood in terms of its existence at every single moment that it exists. Perdurantism states that each persisting thing has distinct temporal parts throughout its existence in addition to having spatial parts. See “temporal parts” for more information. “Perdurantism” is often contrasted with “endurantism.”

**perdure** – For a single thing to only partly exist at any given moment in time, and for its full existence to require a description of it at every single moment in time that it exists. How a thing can persist and be the same thing according to “perdurantism.” See “perdurantism” for more information.

**perfect duty** – An obligation that requires certain behavior with no room for personal choice. For example, we have a perfect duty not to kill people just because they make us angry. “Perfect duties” are contrasted with “imperfect duties.”

**permissible** – Beliefs that are compatible with epistemic normative requirements, or actions that are compatible with moral requirements. They are allowed or optional, but not required. “Permissible” actions and beliefs are often contrasted with “obligatory” and “impermissible” ones.

**perspectivism** – The view that there are multiple ways to reasonably interpret our experiences (based on one's perspective), but some perspectives can be more justified than others.

**perlocutionary act** – A speech act with an intended consequence or function. For example, the prelocutionary act of asking for salt at a dinner table is to get someone to pass some salt.

**permitted** – See “permissible.”

**person** – A rational being similar in key ways to being a human being. For example, Spock from Star Trek would be a person, even though he is not a human being. Some philosophers argue that dolphins and great apes are also persons.

**persuasion** – Attempts to convince people that something is true.

**petitio principii** – Latin for “assuming the initial point.” Refers to the “begging the question fallacy.” (See “begging the question.”)

**phenomenon** – An observation of an object or state of affairs. For example, seeing a light turn on at a neighbor's house.

**phenomenal world** – The experience we have of the world, or the way we understand the world based on our experiences.

**phenomenalism** – The view that experience or sensations provide no evidence of external objects.

**phenomenology** – The philosophical study of our mental activity and first person experiences. Phenomenology can help us know what it's like to be a person or have certain experiences.
**philodoxer** – “A lover of opinion.” Philodoxers love their own opinion more than the truth. They are contrasted with “philosophers” who love the truth more than their own opinion. Philodoxers are more close-minded than philosophers.

**philosopher** – (1) “A lover of wisdom.” Used as a contrast to “sophists” who claim they are wise and “philodoxers” who love their own opinion more than the truth. (2) A lover of learning. Someone who spends a great deal of time to learn and correct her beliefs. (3) A professional who is highly competent regarding philosophy, and spends a lot of time teaching philosophy or creating philosophical works.

**philosophy** – (1) Literally means “love of wisdom.” The quest to attain knowledge and improve ourselves. It generally refers to various domains of study that involve systematic attempts to greater understanding while attempting to be reasonable other than those domains that have been designated to mathematicians or scientists. Arguments and theories concerning the proper domain of philosophy is known as “meta-philosophy.” (2) In ordinary language, 'philosophy' refers to opinions regarding what's important in life or how one should conduct oneself. For example, a person might say, “A penny saved is a penny earned—that's my philosophy.”

**phronesis** – Greek for “wisdom.” Aristotle uses it to refer to “practical wisdom.”

**physical** – Objects that are causally related to reality as it's described by physicists as consisting of particles and energy. For example, tables, chairs, animal bodies, and rocks.

**physical anti-realism** – The view that physical reality (i.e. the natural world) does not really exist (or is less real than some ultimate reality), but that our experiences of the world could still be useful to us. See “idealism” for more information. “Physical anti-realism” can be contrasted with “physical realism.”

**physical contingence** – The status of propositions that describe a physical state of affairs that is compatible with the laws of nature. For example, consider the physically contingent proposition —“Water can boil.” This statement describes something that's physically contingent because it describes a situation that we know to be compatible with the laws of nature. It sometimes happens, but it does not always happen. See “physical modality” for more information.

**physical impossibility** – The status of propositions that describe a physical situation or entity that is incompatible with the laws of nature. For example, consider the plausibly physically impossible statement—”Human beings can jump to the moon.” This is a plausible example of a physically impossible statement because we have reason to believe that the laws of nature and physical abilities of human beings are incompatible with a human being jumping to the moon. See “physical modality” for more information.

**physical modality** – The status of propositions that describe physical situations or entities given the laws of nature—physically contingent statements are true if they are compatible with the laws of nature, physically necessary statements are those that that describe situations or entities that always exist because of the laws of nature, and physically impossible statements are true when they describe situations or entities that can't exist because of the laws of nature. For example, scientists say it's physically impossible to go faster than the speed of light while in a material form.
physical necessity – The status of propositions that describe a physical situation or entity that must happen because of the laws of nature. For example, consider the plausibly physically necessary statement—“Objects will fall when dropped while ten feet from the surface of the Earth.” This is a plausible example of a physically necessary statement because it describes something that seems fully determined to happen given the laws of nature. See “physical modality” for more information.

physical possibility – (1) The status of a proposition that could be physically contingent or physically necessary. For example, it's physically possible for a human to jump over a small rock or for light to move at 299,792,458 meters per second. (2) Sometimes “physical possibility” is a synonym for “physical modality.”

physical realism – The view that physical reality (i.e. the natural world) exists. Physical realists deny that there is a reality that is more real than physical reality, that physical reality exists in the mind of God, etc. “Physical realism” can be contrasted with “physical anti-realism.”

physicalism – The view that nothing exists other than physical reality, but not necessarily restricted to the reality as described by physicists. Some physicalists think that chemistry, biology, and psychology describes reality as well, even though physicists don't study these things. “Physicalism” is often taken to be a synonym for “materialism.”

Platonic Forms – A non-natural, eternal, unchanging part of reality. Plato viewed this part of reality as consisting of “ideals.” We could find out the ideal right, ideal justice, ideal good, and so on. These ideals are the part of reality we refer to when we make moral assertions. Some philosophers accept that “abstract entities” of some sort exist (perhaps for numbers) without wanting to accept all of the traditional views regarding Platonic Forms. (These philosophers can be called “platonists” with a lower-case “p.”)

platonism – The view that Platonic forms or abstract entities exist. See “Platonic Forms” for more information.

plausible – A statement is plausible if it is likely true or highly intuitive given the current evidence.

pluralism – (1) The view that some topic or issue requires multiple irreducible things. (2) The metaphysical view that reality can't be ultimately reduced to just one thing. Perhaps mind, matter, and abstract entities are all separate irreducible parts of reality.

political libertarianism – The view that we should have limited government, very limited or no government welfare, very little to no government regulation of the economy, and free market capitalism. Libertarians sometimes say there are ultimately only two moral principles: (a) the principle of non-injury and (b) the right to property. We could then know what is right or wrong in every situation using these two principles.

politics – The domain concerned with laws, power over the public sphere, and governments.

polyadic predicates – A predicate that applies to two or more things. For example, “John is taller than Jen” could be expressed as “Tab.” (In this case “T” stands for “is taller,” “a” stands for “John” and “b” stands for “Jen.”)
polytheism – The view that more than one god exists.

positive argument – A series of statements meant to support a conclusion rather than oppose a belief or argument. For example, “We should care about others because they can be happy or suffer” is a positive argument. “Positive arguments” are often contrasted with “objections” (i.e. “negative arguments”).

positive categorical proposition – A categorical proposition with the form “all a are b” or “some a are b.” For example, “some mortals are men.”

positive conclusion – A synonym for “affirmative conclusion.”

positive liberty – The power and resources necessary to have the freedom to do certain things. For example, we are have the positive liberty to live if we have the necessary food and medical care. Positive freedom could require internal traits, such as critical thinking skills and absence of addiction. “Positive liberty” is often contrasted with “negative liberty.”

positive premise – A synonym for “affirmative premise.”

positive rights – Rights to various goods or services. For example, some philosophers argue that the right free education is an example of a positive right. Positive rights are often contrasted with “negative rights.”

possibility – (1) A modal domain involving what is contingent, possible, necessary, and impossible. See “metaphysical modality,” “physical modality,” or “logical modality” for more information. (2) The property of not being impossible. For example, it is physically possible for a human being to jump a foot off the ground, but it's physically impossible for a human being to jump to the moon.

possible world – A concept that contrasts what actually exist to what could exist assuming that there's a sense that the laws of physics could have been different (or not exist at all). The concept of possible worlds is used in order to help us understand the difference between metaphysically contingent, metaphysically possible, metaphysically necessary, and metaphysically impossible propositions. We can say metaphysically contingent statements are true in some possible worlds and not others, metaphysically possible statements are true in at least one possible world, metaphysically necessary statements are true in all possible worlds, and metaphysically impossible statements are never true in a possible world. For example, many philosophers argue that the laws of logic exist in every possible world, and they would be metaphysically necessary as a result. See “metaphysical modality” for more information.

post hoc ergo propter hoc – Latin for “after this, therefore because of this.” A logical fallacy that is committed when an argument concludes that something causes something else just because the first thing happened before the second thing (or always happens before the other thing). For example, we shouldn't conclude that breathing causes people to die just because people always breathe before they die. Also related is the “cum hoc ergo propter hoc” fallacy.

post-hoc justification – A justification given for a belief that we already have. Although we often have
a hard time explaining why our beliefs are justified, even if we know they clearly are, post-hoc justifications generally do not explain why we actually have a belief. As a result, they often exist to persuade or even manipulate others into sharing our belief. Post-hoc justifications are often motivated by bias rather than a genuine interest in the truth, and they are often rationalizations rather than genuinely good arguments. For example, people have been shown to be generally repulsed by consensual incest and they have an intuition that consensual incest is wrong, but most of the arguments they give against consensual incest are rationalizations. See “rationalization” for more information.

postmodernism – (1) A philosophical domain that is often characterized by the attempt to transcend labels, skepticism towards philosophical argumentation, and caution concerning the potential hazardous effects philosophy can have on everyday life. (1) In ordinary language, 'postmodernism' refers to a perspective associated with views that “everyone's beliefs are equal,” that “effective philosophical reasoning is impossible,” and that “morality is relative.”

poststructuralism – The view that deconstruction is an important way to understand literary works, and that we should be skeptical of the idea that we can fully understand the meaning behind a literary work. Poststructuralists often claim that the “signifier” and “signified” are dependent on a culture or convention, and that understanding language requires a reference to parts of the language. For example, we can define words in terms of other words, so we might have to know hundreds of words of a language before we can use it to communicate well. Poststructuralists sometimes agree that that meaning can be best understood as what words don't refer to and how they differ from other words within a language.

postulate – An axiom or belief assumed for the sake of argument. For example, many argument about the world require us to assume that an external world exists.

practical – Issues that concern real-life consequence rather than abstractions that can't make a difference to our lives. Practical philosophy often concerns how we should live and what decisions we should make. Ethics is the most practical philosophical domain.

practical rationality – (1) Proper thinking involving means-end reasoning or ethical reasoning. “Practical rationality” determines how we ought to do “practical reasoning.” For example, a person who jumps up and down to fall asleep is likely being irrational in this sense. However, a person who lays down in a bed and closes her eyes in order to go to sleep is likely being rational. (2) According to some philosophers, such as Immanuel Kant, practical rationality covers ethical reasoning in addition to means-end reasoning. A moral action is more rational than the alternatives, and immoral actions could be said to be “irrational.”

practical reason – (1) Means-end reasoning. Reasoning that we use in order to know how to effectively accomplish our goals. For example, to eat food to alleviate hunger would be seem to be an appropriate way to use practical reasoning. (2) Ethical reasoning. Reasoning that determines what actions we should do, all things considered. For example, it could be considered to be appropriate to decide to give to a charity, but it could not be considered to be appropriate to decide to murder people.

practical wisdom – Knowledge about how to achieve goals and live a good life. Aristotle contrasted “practical wisdom” with “theoretical wisdom.”
**pragmatic** – Things that concern what is useful or practical.

**pragmatic theory of justification** – The view that what is true is actually what is useful to a person. What we should consider to be a “justified belief” is based on what helps us make predictions or live a better life.

**pragmatic theory of truth** – The view that good justifications are those that are useful to us. What we should consider to be “true beliefs” is based on what helps us make predictions or help us live better lives in some other way.

**pragmatism** – See “pragmatic theory of truth” or “pragmatic theory of justification.

**praiseworthy** – Actions done by morally responsible people that are better than what we would reasonably expect, or that achieve more good than is morally required. See “responsibility” and “supererogatory” for more information. “Praiseworthy” actions can be contrasted with “blameworthy” ones.

**predestination** – (1) The view that a deity determines everything that happens, usually thought to be “for the best.” Predestination in this sense is thought to logically imply that determinism is true, and it has inspired debates over “free will” for that reason. See “divine providence” for more information. (2) In ordinary language, predestination is often used as a synonym for “fate” or “destiny.”

**predetermination** – See “predestination.”

**predicate calculus** – A synonym for “predicate logic.”

**predicate constants** – Constants in predicate logic are specific things that are predicated. The lower case letters “a, b, [and] c” are commonly used. For example, consider the statement, “George Washington is an animal.” In this case we can write this statement in predicate logic as “Ag” where “A” means “is an animal” and “g” stands for “George Washington.” In this case “g” is a constant because it refers to something specific that's being predicated. Sometimes variables are used instead of constants. For example, “Ax” means “x is an animal” and “x” can be anything. See “predicate logic,” “predicate variables,” and “predicate letters” for more information. “Predicate constants” can be contrasted with “logical constants.”

**predicate logic** – Formal logical systems that include quantification. For example, predicate logic allows us to validly infer that “there is at least one thing that is both a dog and a mammal because all dogs are mammals, and there is at least one thing that is a dog.” This argument could not be validly inferred using propositional logic. See “quantifier” for more information. “Predicate logic” can be contrasted with “propositional logic.”

**predicate term** – A synonym for “major term.”

**preference** – To have a greater desire for something or to value something more than something else. For example, many people have a preference to live rather than to die.

**preferable** – (1) What a person would rather have than something else, or what a person desires or
values more than something else. For example, many people agree that it's preferable to experience pleasure than pain. (2) A better or more valuable option. For example, many people believe that pleasure has a positive value and would think it's preferable for people to experience more rather than less pleasure.

**premise** – A statement used in an argument that is used in order to give a reason to believe a conclusion. For example, consider the following argument—“We generally shouldn't hurt people because it's bad for people to suffer.” In this case the premise is “it's bad for people to suffer.” Keep in mind that many arguments have more than one premise. “Premises” are often contrasted with “conclusions.”

**premise indicator** – A term used to help people identify that a premise is being stated. For example, “because” or “considering that.” See “premise” for more information.

**prescriptive** – What is advisable or preferable. For example, “you shouldn't steal from people” is a prescriptive statement. “Prescriptive” is often equated with “normative” and it can be contrasted with “descriptive.”

**prescriptivism** – The view that moral judgments are not true or false (and don't refer to facts or real-world properties). Instead, they refer to “prescriptions” (imperatives or commands). For example, the judgment that “stealing is wrong” might actually mean “don't steal!” Prescriptionism is an “anti-realist noncognitivist meta-ethical” theory.

**prima facie** – Latin for “at first face” or “at first sight.” ‘Prima facie’ refers to something that counts as a consideration in favor of something but can be overridden. For example, prima facie evidence is a reason to believe something is true, but there can be better reasons to believe it's false. The fact that Copernicus's theory of the Sun being the center of the solar system was simpler than the alternative of the Earth being at the center was prima facie evidence that his theory better described the world.

**primary social goods** – Goods that everyone values. John Rawls suggests that liberty, opportunity, income, wealth, and sources of self-respect should be included in this category.

**primary qualities** – The physical qualities an object has, such as extension, shape, size, and motion. John Locke thought that primary qualities could be known to be the qualities an object actually has rather than the subjective way we experience the object. John McDowell argued that primary qualities can be described in ways other than the way we perceive them. For example, we can describe the shape of an object using mathematics. “Primary qualities” are contrasted with “secondary qualities.”

**prime mover** – Aristotle's understanding of a “first cause” or the god that makes motion possible. It's something that can cause things to happen without being caused to do so. Many people think God is a prime mover that created the universe, and the universe couldn't exist unless it was created in this way. However, Aristotle actually thought that the universe always existed.

**primitive concept** – A concept that can't be properly defined or understood in terms of other concepts. For example, G. E. Moore argued that the concept of “goodness” is primitive and that it could not be defined in terms of other concepts. Primitive concepts might need to be understood in terms of examples. “Primitive concepts” can be contrasted with “definable concepts.”
primitives – The building blocks of thought or reality. Ontological primitives are the building blocks of reality, such as subatomic particles. Concepts that must be presupposed for a theory or logical system are primitives. For example, the law of non-contradiction could be a primitive.

principal attributes – The essence or defining characteristics of substances. According to René Descartes, extension is the principal attribute for matter and thought is the principal attribute for mind.

principle – (1) A law, rule, or brute fact. For example, the law of non-contradiction is a plausible example. (2) A guiding rule or value. What people call “moral principles.” For example, the principle that states that we generally shouldn't harm others.

principle of charity – See “charity.”

principle of bivalence – The logical principle that states that all propositions have one truth-value, and they are either true or false. The principle of bivalence is similar to “the law of excluded middle,” but that law does not guarantee that all propositions are true or false. Some philosophers reject the principle of bivalence and argue that there can be more than two truth-values. Perhaps some propositions could be indeterminate or have degrees of truth. The “principle of bivalence” is similar to the “law of excluded middle.”

principle of parsimony – The principle that states that simplicity is a feature that can count in favor of a theory. We should prefer a simpler theory if it is otherwise just as good as explaining the relevant phenomena as another theory. Copernicus's theory that the Sun is the center of the solar system was simpler than the alternative and could make predictions just as well, so we had a reason to prefer his theory to the best alternative that was available at the time. See “Occam's razor.”

principle of sufficient reason – The principle that states that everything that exists has a sufficient explanation as to why it exists rather than something else. For example, we might think that everything that happens has a causal explanation as to why it happens rather than something else. Many philosophers reject this principle and think it's possible that there are “brute facts” that have no explanation.

principle of utility – The moral principle that states that we ought to seek the greatest good for the greatest number. The principle of utility is generally understood as equating “goodness” with “pleasure” and “harm” with “pain.” Therefore, the greatest good for the greatest number is meant to be the most pleasure for the greatest number, and the least pain for the greatest number. We can try to determine how much pleasure and pain is caused by various choices we can make to determine which choices are best—an action will be right insofar as it causes more happiness than the alternatives. For example, killing people would be taken to be generally wrong because it generally causes people more suffering than alternative courses of action. See “utilitarianism” for more information.

probabilism – The view that the degrees of confidence we have for various beliefs ought to be based on probability calculus. Probabilism states that we often lack certainty, but we should still try to believe whatever is likely true. For example, we ought to be confident that we won't roll a six when we roll a six-sided-die, but we should not be confident that we will roll a two. See “psychological certainty” and “probability calculus” for more information.
**Probability calculus** – Mathematical rules that determine the odds of various propositions being true. For example, the probability of a tautology being true is 100%, and the probability of a contradiction being true is 0%. Also, the odds of two unproven propositions being true is lower than merely one of the two being true.

**Probability distribution** – A list of possible outcomes and the odds of each outcome of occurring, which is often related to what decision we should make. For example, the odds of a day being sunny could be 40% and the odds of that day being rainy could be 60%.

**Problem of evil** – The question about how a divinity could exist if evil exists. It is sometimes thought that a divinity exists that's all-powerful, all-knowing, and all-good, but that would imply that the divinity would assure us that less evil exists than actually exists. For example, it is plausible that such a divinity would not make lead such a convenient yet poisonous metal that would take us thousands of years to discover to be poisonous.

**Problem of induction** – The fact that induction appears to be difficult or impossible to sufficiently justify with argumentation. It is argued that induction can't be sufficiently justified by the fact that it was reliable in the past because that would require a circular argument (the assumption that induction is reliable); and it also seems implausible to think that induction can be justified as being self-evident. See “induction” for more information.

**Process metaphysics** – A synonym for “process theology.”

**Process theism** – The belief that God evolves as part of a process into a more perfect being.

**Process theology** – The philosophical systematic attempt to understand or speculate about “process theism.”

**Projectionism** – (1) The view that moral judgments are based on our emotions, but we experience those emotions as being objective facts or properties of external reality. For example, to see a small child be tortured could be observed as an immoral act, but the projectionist would argue that the observation would actually just reflect the fact that the observer has some other negative emotional experience directed towards an action. (2) The view that we take something to be an objective fact or property of external reality, but it is not actually an objective fact or property. Instead, we are projecting our own attitudes or emotions onto things. For example, some people believe that we project colors onto the world (that aren't really there) when we talk about red cars and green grass.

**Proof** – (1) An argument that supports a belief. It's often taken to refer to a sufficient reason to agree with a belief. See “positive argument” for more information. (2) The evidence for a belief. It's often taken to refer to sufficient evidence for a belief. See “justification” for more information.

**Proof by absurdity** – A synonym for “indirect proof.”

**Property** – An attribute, element, or aspect of something. Examples of properties include green, soft, valid, and good.
property dualism – The view that things have up to two different kinds of basic properties: physical and mental. For example, a single event could be described in terms of physical properties (such as a certain brain state) and psychological properties (such as experiencing pain). Property dualists are not substance dualists because they don't think the mind and body are made of different kinds of stuff.

proposition – A truth claim or the conceptual meaning behind an assertion. The statement, “Socrates is a man and he is mortal” contains two propositions: (a) Socrates is a man and (b) Socrates is mortal. Propositions are not statements because there can be multiple statements that refer to the same proposition. For example, “Socrates is a man and he is mortal” and “Socrates is mortal and he is a man” are two different statements that refer to the same proposition.

proposition type – Different logical forms categorical propositions can take. There are four proposition types: A, I, O, and E. Each of these refers to a different logical form: (A) all \( \text{a} \) are \( \text{b} \), (I) some \( \text{a} \) are \( \text{b} \), (O) some \( \text{a} \) are not \( \text{b} \), and (E) no \( \text{a} \) are \( \text{b} \).

propositional calculus – A synonym for “propositional logic.”

propositional connective – A synonym for “logical connective.”

propositional logic – A formal logical system that reduces arguments to propositions and logical connectives. For example, the statement “All dogs are mammals or all dogs are reptiles” becomes translated as “\( \text{A or B} \)” (The logical connective is “or.”) Propositional logic lacks “quantification.” “Propositional logic” can be contrasted with “predicate logic.”

propositional variable – Symbols used in propositional logic to represent propositions. Capital letters tend to stand for specific propositions. For example, “\( \text{A} \)” could stand for “Socrates is mortal.” Lower-case letters or Greek letters tend to stand for any possible proposition. For example, “\( \text{a} \)” could stand for any possible proposition.

prove – To give proof for a conclusion. It is often used to refer to sufficient evidence to believe something, but sometimes it only refers to the requirement to support our beliefs within a debate. See “proof” for more information.

providence – See “divine providence.”

psychological – The domain that includes thoughts, feelings, experience, the first-person perspective, semantics, intentionality, and qualia. It is often said that psychological activity occurs in a mind. “Psychological” reality is often contrasted with “physical reality.”

psychological certainty – The feeling of some degree of confidence about a belief. To be psychologically certain that something is true is to feel highly confident that it's true. For example, a person might feel absolutely confident that trees really exist and later find out that our entire world takes place within a dream.

psychological egoism – The view that people can only act in their perceived self-interest. For example, a person could not give money to the poor unless she believed it would benefit her somehow. (Perhaps it could improve her reputation.)
public reason – John Rawls's concept of reason as it should exist to justify laws and public policy. Ideally, everyone should be able to rationally accept the laws and policies no matter what their worldview is, so laws and public policies should be justified in secular ways that don't require acceptance of controversial beliefs. Public reason does not require controversial religious beliefs or a comprehensive worldview precisely so it can help assure us that every reasonable person would find the laws and public policies to be justified—even if they have differing worldviews.

pure intuition – An a priori cognition. According to Immanuel Kant, a pure intuition is the way we know about “non-discursive concepts,” such as space and time.

pyrrhonism – The philosophy of an ancient group of philosophers known as “the skeptics.” They didn't know if we could know anything and thought that we should suspend judgment as a result—to neither believe nor disbelieve anything. They argued that we should even suspend judgment concerning the belief that “we can't know anything.”

qualia – The “what it's like” or qualitative description of subjective experience. For example, the taste of chocolate, feel of pain, the appearance of green, and so on.

QED – See “quod erat demonstrandum.”

quantificational logic – A synonym for “predicate logic.”

quantifier – (1) A symbol used in logic to designate a quantity or modality. Quantifiers are used to make it clear if a proposition concerns all of something, not all of something, something that actually exists, or something that doesn't actually exist. The two main quantifiers in logic are “∀” that stands for “all” and “∃” that stands for “exists.” For example, “∃x(Fx and Gx)” means that there is an x that is an F and a G. For example, there is something that's a dog and a mammal. See “modal quantifiers” and “deontic quantifiers” for more information. (2) A word used to designate quantity, such as “all” and “some.” For example, “all people are rational animals” uses the “all” quantifier.

quasi-realism – (1) A view that there are no moral facts that tries to make sense out of our moral language and behavior. For example, some quasi-realists are emotivists, but they argue that moral judgments can in a sense be true or false. For example, quasi-realist emotivists could agree that saying, “Stealing is wrong” does not merely express a dislike of stealing insofar as people use it to make assertions. Quasi-realism is meant to be more sensitive to our common sense and intuitions than the alternatives. Quasi-realism can be compatible with multiple anti-realist meta-ethical theories. Also see “fast track quasi-realism” and “slow track quasi-realism.” (2) An anti-realist position (that rejects that some type of facts exist) that attempts to be more sensitive to our common sense beliefs and intuitions by explaining why our language about something seems factual, but is not actually factual.

quater – A chemical that is functionally equivalent to water that quenches thirst, boils at the same temperature, and so on; but it's not H₂O. Quater was part of a thought experiment and was used to argue that it's intuitive to think water is more than a chemical with certain functions—the chemical composition of water is part of what it is. See “Twin Earth” for more information.

questionable analogy – See “weak analogy.”
**quod erat demonstrandum** – Latin for “that which was to be demonstrated.” It roughly means “therefore” and is used to refer to a conclusion of a proof. It's often abbreviated as “QED.”

**quoting out of context** – When someone uses a quotation to support a belief when the quote put into the proper context wouldn't support that belief after all. For example, Elizabeth could say, “We know that UFOs exist, but we don't know that aliens visit the Earth from other planets” and Tony could quote her as saying, “We know UFOs exist” to give others the impression that Elizabeth believes that aliens visit the Earth. See “one-sidedness” for more information.

**randomness** – See “epistemic randomness” or “ontological randomness.”

**rational persuasion** – An attempt to persuade others that something is true through well-supported valid argumentation.

**rationalism** – (1) The view that there are non-tautological forms of knowledge or justification other than observational evidence. For example, the laws of logic are a plausible example of something we can justify without observational evidence that's not tautological. (2) The view that we should try to reason well and form beliefs based on the best evidence available.

**rationality** – (1) At minimum, the ability to draw logical conclusions from valid arguments and avoid contradictory beliefs. Rationality could also refer to using effective methods to accomplish our goals or even to effective reasoning in general. (2) The field concerned with what we ought to believe. We ought to believe conclusions that are well justified and disbelieve conclusions that are well refuted. For example, the belief that at least five people exist is well justified, so we ought to believe it (and it would be rational to believe it). We could say that we ought not disbelieve that at least five people exist (and it would be irrational to disbelieve it). (3) “Rationality” is often equated with “reasonableness.”

**rationalization** – Nonrational arguments given to believe something without a genuine concern for what's true. Rationalizations are meant to superficially appear to be genuinely good arguments, but they fail on close examination. For example, a person who believes that the Earth is flat, and is told that we have pictures of the Earth from space and we can see that it's round could rationalize that the pictures are probably fake. A great deal of philosophical writing could be closer to rationalization than to genuinely good argumentation, but rationalization plagues everyday thought and can be difficult to avoid. See “moral rationalization” and “post-hoc justification” for more information.

**realism** – A domain that is taken to be factual (part of the real world), and not merely a social construction or conventional. For example, “moral realism” is the view that there is at least one moral fact that is not determined by something like a social contract. “Realism” is often contrasted with “anti-realism.”

**reasonable pluralism** – Disagreement among people who have reasonable yet incompatible beliefs. A plausible example is of a person who believes that intelligent life exists on another planet and another person who doesn't think life exists on another planet. John Rawls coined this phrase because he believed that society should fully embrace cultural diversity involving various worldviews and religious beliefs insofar as such religious beliefs and worldviews can be reasonably believed—the evidence we have for many of our beliefs is inconclusive, but it can be reasonable to have the beliefs
until they are falsified (or some other standards of reason are violated).

**reasonableness** – To hold beliefs that are sufficiently justified and reject beliefs that are insufficiently justified. The ability to *reason well* and behave in accordance to reasonable beliefs. “Reasonableness” is often equated with “rationality.”

**rebuttal** – See “objection.”

**red herring** – A fallacious kind of argument that is meant to distract people from arguments and questions made by the opposing side. These kinds of arguments are meant to *derail* the conversation or *change the subject*. For example, a politician might be asked if we should end our wars, and she might reply, “What's really important right now is that we improve the economy and create jobs. We should do that by lowering taxes.”

**redistribution of wealth** – To take wealth away from some people and give it to others. It is sometimes thought that it is morally justified to tax the wealthy to provide certain services for the poor. For example, many people insist that Robin Hood is a hero because he risks his well being to take from the rich to give to the poor (who would otherwise suffer from an unjust system).

**redistributionism** – The view that we should have “redistribution of wealth” (perhaps to take from the wealthy to help the poor).

**reductio ad absurdum** – Latin for “reduction to the absurd.” Also known as the “argument from absurdity.” It's a form of argument that justifies why an argument or claim should be rejected insofar as it would have absurd consequences. For example, consider the following argument—“Stars exist; the Sun is a star; therefore Stars don't exist.” This argument leads to an absurd consequence in the form of a logical contradiction (i.e. that something exists and doesn't exist.)

**reduction** – To conclude or speculate that the parts of something are identical to the whole. For example, water is H$_2$O, and diamonds are carbon molecules with a certain configuration. We often say that something is reducible to something else if it's “nothing but” that other thing. For example, water is *nothing but* H$_2$O.

**reductionism** – (1) Relating to identity theories or identity relations. For example, scientists think that water is identical with H$_2$O. (2) The view that something is nothing but the sum of its parts. Some philosophers think that particles and energy (the reality described by physics) are the only real parts of the universe, and that the universe is actually *nothing but* physical reality as described by physicists.

**redundancy** – (1) When something is redundant or not needed. For example, secular ethics attempts to explain right and wrong without appealing to controversial religious entities—those entities would then be redundant to the explanation. This could be seen as an epistemic virtue of practical importance. It could be said that we should often hedge our bets by not having moral beliefs that depend on controversial entities that might not exist. Sometimes redundancy might help give us a reason to reject entities. (2) To have backup plans for our beliefs and arguments. For example, a conclusion could be redundant if we have several reasons to think it's true. To refute one argument in favor of the conclusion would then be insufficient to give us a reason to stop believing the conclusion is true.
reference – (1) The objects that terms refer to. The terms “morning star” and “evening star” have different meanings—the “morning star” is the last star you can see in the morning and the “evening star” is the first star you can see at night. However, they both have the same reference (i.e. Venus). Gottlob Frege contrasted “reference” with “sense.” (2) A source of information used for citations. (3) Someone who can vouch for your qualifications.

reference fixing – An initial moment when someone names a thing (or type of thing). Reference fixing could involve a person pointing to an object that others perceive or by describing an object in order to make it clear what exactly is being given a name. For example, germs could have been described as whatever microscopic living organisms were causing people to get sick in certain ways. Reference fixing is often part of a “causal theory of reference.”

reference borrowing – Continuing a historical tradition of using a term to refer to something. Merely using a term for the same thing as someone else is to engage in reference borrowing. Reference borrowing is often part of a “causal theory of reference.”

reflective equilibrium – An ideal state when our beliefs and intuitions are consistent after deliberation and debate. Reflective equilibrium requires that we form beliefs based on our experiences and intuitions, and that we reject certain intuitive beliefs when they are incompatible with other more important intuitive beliefs or observations until we reach perfect coherence—when our beliefs and observations are all logically compatible and no longer contain contradictions. For example, some utilitarians could believe that we should sometimes kill innocent people to use their organs to save other lives because such a counterintuitive position is plausibly implied by utilitarian principles. A related concept to “reflective equilibrium” is “coherentism.”

refutation – An argument that opposes another argument or belief. It often refers to arguments that provide us with sufficient reason to reject a belief or argument. See “objection.”

refute – To disprove a belief or oppose an argument using another argument. It often refers to giving a sufficient reason to reject a belief or argument. For example, we can refute the belief that all crows are black by finding an albino crow.

regress – A solution that has the same problem it’s supposed to solve. For example, we might assume that everything needs to be created, and conclude that God created the universe; but our assumption will lead us to think that something needed to create God as well. Another example is to say that we only know something when we can justify it using an argument, but the argument will require that the premises of the argument also be known, and therefore we will need arguments for those premises as well. That can lead to an “infinite regress.”

reification – (1) Inappropriately treating something as an object, such as treating human beings as means to an end. For example, paying factory workers as little as possible and having them work in unsafe conditions just to make more profit. (2) To inappropriately think of abstract entities or concepts as concretely existing entities. For example, “courage” should not be thought of as a person.

relational predicate logic – A system of predicate logic that can express both monadic and polyadic predicates. See “monadic predicate” and “polyadic predicate” for more information.
relations of ideas – Statements that can be justified by (or true in virtue of) the definitions of words. For example, “all bachelors are unmarried” is a relation of idea, and we can justify the fact that it's true by appealing to the definitions of words. Relations of ideas are said to be tautological and non-substantive. David Hume thought the only statements that could be justified are “relations of ideas” and “matters of fact.”

relativism – See “epistemic relativism” or “cultural relativism.”

relevance – To be appropriately related. What is said in a philosophical discussion or debate should be relevant in that it should appropriately relate to the primary topic of conversation. Certain arguments and certain beliefs are related to the topic of conversation, and are worth talking about in order to understand the topic or to know what we should believe regarding the topic. Extreme forms of irrelevance are off-topic. Additionally, objections must be properly related to the arguments and beliefs they oppose, and giving objections that are somewhat irrelevant could change the subject or be a fallacious “red herring.”

relevance logic – A logical system that requires more than the simple truth table for conditional statements. According to classical logic, “If all dogs are mammals, then gold is a metal” is true. However, this doesn't seem to be true using ordinary language and relevance logic attempts to explain why. According to relevance logic, both parts of the conditional must be related in the right way.

reliabilism – The view that better justifications for beliefs are more reliable than other ones, and that justified beliefs are justified because they were formed by a reliable belief-forming process. Reliabilism generally stresses that justified beliefs are more likely true than the alternatives precisely because justifications assure us that our beliefs are more likely true than they would be otherwise.

religious humanism – The view that human interests are of primary importance rather than those of gods or supernatural beings, but while still endorsing a religion. Religious humanism states that the main importance of religion is in serving humans rather than in serving supernatural beings.

res cogitans – Latin for “thinking thing.”

res extensa – Latin for “extended thing.”

responsibility – (1) Being in control of one's moral decisions. A person who is morally responsible can be legitimately praised or blamed for her moral actions. Moral responsibility requires a certain level of sanity, competence, and perhaps free will. It is plausible that small children and nonhuman animals lack responsibility because they might lack the competence required. Additionally, there are excuses that can temporarily invalidate a person's moral responsibility, such as when people are harmed on accident or when a person is coerced into harming others. (2) To be morally required to act a certain way. For example, parents are responsible for caring for their children.

retribution – The justification for punishment that considers a criminal to deserve to be harmed. For example, we could say that a murderer deserves to die in order to justify using the death penalty against the murderer. Retribution is sometimes criticized as a form of vengeance.

retributive justice – A principle of justice that states that punishment as some form of harm is the
appropriate response to crime insofar as criminals deserve to be harmed. Retributive justice often states that the punishment should be proportionate to (or the same as) the crime itself. For example, murder would be appropriately punished with the death penalty.

**revealed theology** – The systematic study of gods using information attained by revelation—direct communication with one or more gods or supernatural beings. “Revealed theology” is often contrasted with “natural theology.”

**revisionary** – Definitions or concepts that depart from the usual or intuitive associations we have with certain terms. For example, people who say that knowledge requires beliefs we can justify well using argumentation might contradict the ordinary understanding of knowledge in that we seem to know that “1+1=2” and yet we might not know how to justify it well using argumentation.

**right** – (1) Correct or appropriate as opposed to “wrong.” (2) “Morally right” as opposed to “morally wrong.” (3) To be on the other end of an obligation. For example, to have the right to life means that other people are obligated not to kill you without an overriding reason to do so.

**rigid designator** – Something that refers to the same thing in all possible worlds and never refers to anything else. For example, some philosophers argue that water refers to H\textsubscript{2}O in every possible world.

**Ross's intuitionism** – William David Ross's ethical theory that requires us to accept meta-ethical intuitionism. He argues that there are intrinsic values and prima facie duties, but such values and duties can conflict. Additionally, we can't rationally determine what we should do using moral theories in all circumstances precisely because values and duties can conflict.

**rule utilitarianism** – A form of consequentialism that states that we should rely on simplified rules in order to maximize goodness (positive value) and minimize harm (negative value). Rule utilitarians often equate “goodness” with “happiness” and “harm” with “suffering.” Rule utilitarianism is sometimes inspired by skepticism regarding our ability to know how to maximize goodness given our situation. Many people are willing to harm others “for a greater good” who don't get the expected results they hoped for. “Rule utilitarianism” is contrasted with “act utilitarianism.”

**rules of inference** – Rules that state when we can have a valid inference. The rules state that certain argument forms are valid, such as “modus ponens,” which states that the propositions “if \(a\), then \(b\)” and “\(a\)” can be used to validly infer “\(b\)” (“\(a\)” and “\(b\)” stand for any two propositions.) See “valid” for more information.

**rules of replacement** – Rules that tell us when two propositions mean the same thing. We can replace a proposition in an argument with any equivalent proposition. For example, we know that “all dogs are animals and all cats are animals” means the same thing as “all cats are animals and all dogs are animals” because of the rule known as commutation—“\(a\) and \(b\)” and “\(b\) and \(a\)” both mean the same thing. (“\(a\)” and “\(b\)” stand for any two propositions.)

**salva veritate** – Latin for “with unharmed truth.” It refers to potential changes to statements that will not alter the truth of the statement. For example, we could generally talk about “trilaterals” instead of “triangles” without changing the truth of our claims about them because they both refer to the same kind of mathematical object.
saving the phenomena – Explanations that are consistent with our experiences or account for our experiences. For example, someone who claims that beliefs and desires don't exist should tell us why they seem to exist as part of our experiences. Explanations that fail to save the phenomena are likely to be counterintuitive and inconsistent with our experiences.

schema – A synonym for “scheme of abbreviation.”

scheme of abbreviation – A guide used to explain what various symbols refer to for a set of symbolic logical propositions, which can be used to translate a proposition of symbolic logic into natural language. For example, consider the logical proposition, “A ∨ B.” A scheme of abbreviation for this proposition is “A: The President of the USA is a man; B: The President of the USA is a woman.” “A” is used to mean “and/or.” We can then use this scheme of abbreviation to state the following proposition in natural language—“The President of the USA is a man or a woman.”

scientific anti-realism – The view that we shouldn't believe in unobservable scientific entities, even if they are part of an important theory. For example, we do not observe electrons, but we know what effect they seem to have on things when we accept certain theories and models. Scientific anti-realists would claim that we don't know if electrons really exist or not. One type of scientific anti-realism is “instrumentalism.”

scientific method – The way science makes discoveries, which involves hypotheses, observations experiments, and mathematical models. It is often thought to follow the “hypothetico-deductive method.”

scientific realism – The view that unobservable scientific entities are likely real as long as their existence is properly supported by the effects they have. For example, germs were originally unobservable, but scientists hypothesized that various diseases were caused by them. “Scientific realism” can be contrasted with “scientific anti-realism.”

scientism – The view that science is the best source of knowledge for everything. For example, anyone who agrees with scientism would likely think that morality is either nonfactual or that science is the best way for us to attain moral knowledge. The word 'scientism' is generally used as a pejorative to refer to inappropriate views that science can be best used to attain knowledge when there are better non-scientific methods to attain knowledge. The non-pejorative term that is often used in philosophy rather than 'scientism' is 'epistemic naturalism.'

secondary qualities – Certain qualities an object has, such as color, smell, and taste. John Locke argued that secondary qualities only exist because we perceive them and they are not actually part of the object itself. Many people think this implies that secondary qualities are illusions, but John McDowell argues that they exist as part of our experience and are not illusory because illusions are deceptive, but there is nothing deceptive about secondary qualities. According to McDowell, experiences of secondary qualities don't trick us into having false beliefs about reality. “Secondary qualities” can be contrasted with “primary qualities.”

secular – Without any religious requirement or assumptions. For example, the argument that “God dislikes homosexuality, so homosexuality is immoral” would require us to accept religious
assumptions. Secular arguments are meant to be persuasive to people of every religion and to those who lack a religion.

**secular humanism** – A view that reason and ethics are of great importance, and that we should reject all supernatural beliefs. Secular humanism also states that human beings are of supreme moral importance, so ethical systems should primarily concern human welfare. “Secular humanism” can be contrasted with “religious humanism.”

**secularism** – (1) The separation of church and state. To remove religious domination or requirements from politics. (2) To separate religious requirements or domination from any institution or practice.

**secundum quid** – Latin for “according to the particular case.” It's generally used to refer to the “hasty generalization” fallacy.

**selective evidence** – See “one-sidedness.”

**selective perception** – A cognitive bias defined by people's tendency to interpret their experiences in a way consistent with (and perhaps as confirming) their beliefs and expectations. For example, liberals who experience conservatives giving bad arguments could take that experience as confirmation that conservatives don't argue well in general. This bias is related to “theory-laden observation” and the “confirmation bias.”

**self-contradiction** – A statement is a self-contradiction when it can't be true because of the logical form. For example, “Socrates is a man and he is not a man.” This statement can't be true because it is impossible to be something and not that thing. It has the logical form, “$a \text{ and not-}a$.” (“$a$” is any proposition.)

**self-evidence** – A form of justification based on noninferential reasoning or intuition. It is often thought that self-evidence is based on the meaning of concepts. Mathematical beliefs, such as “$1+1=2$” is a plausible example. If something is self-evident, then justification has come to an end. Self-evidence can help assure us that we can justify beliefs without leading to an infinite regress or vicious circularity. According to Robert Audi, understanding that a proposition is true because it's self evident can require background knowledge and maturity, it could take time to realize that a proposition is self-evident, and beliefs that are justified through self-evidence could be fallible. This opposes the common understanding that self-evident propositions can be known by anyone, are known immediately, and are infallible.

**self-defeating** – (1) The property of a belief (or theory) that gives us a reason to reject itself (the belief or theory). For example, the verification principle states that statements are meaningless unless they can be verified, but it seems impossible to verify the verification principle itself. That would suggest that the verification principle is self-defeating because it's meaningless. (2) The property of an action that undermines itself. A self-defeating prophecy makes it impossible to come true. For example, a prophecy that states that a person will die by driving a car could decide never to drive a car again (and will therefore avoid dying that way). In that case the prophecy failed to predict the future after all.

**self-serving bias** – The bias defined by people's tendency to attribute their successes to positive characteristics they possess, and their tendency to attribute their failures to external factors that are
outside of their control. For example, a person could think she does well on a test because of knowing the material, but that same person could say she failed another test because the test was too hard. This could be related to the “illusory superiority” bias.

**semantic completeness** – A logical system is semantically complete if and only if it can prove everything it is supposed to be able to prove. For example, propositional logic is semantically complete if and only if it can be used to determine whether any possible argument is valid.

**semantic externalism** – The view that the meaning of terms can be partially based on things external to our minds. For example, a semantic externalist would likely agree that no chemicals other than H₂O could be water, even if they are functionally equivalent and cause the same experiences—quench thirst, boils when hot, etc.

**semantic internalism** – The view that the meaning of terms can be entirely based on things in our minds. For example, a semantic internalist would likely agree that we could find out that some chemical other than H₂O is also water if it is functionally equivalent and causes the same experiences—it quenches thirst, boils when hot, etc.

**semantics** – The meaning of words. Some people are said to be “debating semantics rather than substance” when they argue about what terms mean rather than what is true or false regardless of how we define terms. “Semantics” is often contrasted with “syntax.”

**sensation** – (1) An experience caused by one or more of the five senses (sight, sound, touch, taste, and smell). (2) To experience qualia or a feeling.

**sense** – (1) What Gottlob Frege called “*sinn*” to refer to the meaning or description of a word. For example, “the morning star” and “the evening star” both have different senses, but refer to the same thing (i.e. the reference is the planet Venus). The sense of “the morning star” is “the last star we can see in the morning,” and the sense of “the evening star” is “the last star we can see at night.” Gottlob Frege contrasted “sense” with “reference.” (2) The ability to understand. For example, we might talk about someone's good sense. (3) To perceive. For example, we might say that we sense people in the room when we can see them. (4) An ability of perception; such as sight, sound, touch, taste, and smell. These are said to be “the five *senses*.”

**sense data** – The experiences caused by sense perception (the five senses). Sense data can be understood without interpretation and exist exactly as they are experienced. The visual sense data of a green apple includes a visual experience consisting of a blotch of green.

**sense perception** – See “perception.”

**sensible intuition** – According to Immanel Kant, sensible intuition refers to the concepts required for experience. For example, space and time. Without those concepts it would be impossible to experience the phenomenal world. For example, visual experience would just involve blotches of color that would be impossible to interpret as being information about an external world.

**sentential** – The property of being related to sentences or propositions. For example, sentential logic is a synonym for “propositional logic.”
sentential logic – A synonym for “propositional logic.”

sentimentalism – See “moral sentimentalism.”

set – (a) A group of things that all share some characteristic. For example, the set of cats includes every single cat that exists. (b) In Egyptian mythology, Set is the god of deserts, storms, and foreigners. Set has the head of an animal similar to a jackal, and he is known as “Sēth” in Ancient Greek.

Ship of Theseus – A ship used as part of a thought experiment. Imagine a ship is slowly restored and all the parts are eventually replaced. This encourages us to ask the question—Is it the same ship?

signifier – A sign that conveys meaning. For example the word 'red' is a signifier for a color. Signifiers are contrasted with the “signified.”

signified – The entity, state of affairs, meaning, or concepts referred to by a sign. For example, the word 'Socrates' refers to an actual person (the signified). The “signified” is often contrasted with “signifiers.”

simpliciter – Latin for “simply” or “naturally.” It's used to describe when something is considered without qualification. For example, torturing a helpless nonhuman animal is morally wrong simpliciter.

simplicity – (1) See “Occam's razor.” (2) To lack complexity.

simplification – A rule of inference that states that we can use “a and b” as premises to validly conclude “a.” (“a” and “b” stand for any two propositions.) For example, “Socrates is a man and Socrates is mortal; therefore, Socrates is a man.”

sinn – German for “sense.”

skepticism – (1) Disbelief. Skepticism of morality could be the belief that morality doesn't really exist. (2) A state of uncertainty. A skeptic about gods might not believe or disbelieve in gods. (3) An attitude defined by a healthy level of doubt. (4) See “Pyrrhonism.”

slave morality – A type of morality that is life-denying and views the world primarily in terms of evil. Slave morality tends to define “goodness” in terms of not being evil (i.e. not harming others).

slippery slope – (1) An argument that requires us to believe that incremental causal changes will likely happen given that we make certain decisions. For example, having violence on television might desensitize people to violence and lead to even greater violence on television in the future by an ever-increasing demand for more thrilling forms of entertainment. (2) An informal fallacy committed by arguments that require us to believe that some decision will likely lead to incremental changes for the worse without sufficient evidence for us to accept that the changes are likely to actually happen. For example, some people argue that we shouldn't legalize same-sex marriage because that would likely lead to marriages between brothers and sisters, and eventually it would lead to marriages between humans and nonhuman animals.
**slow track quasi-realism** – An attempt to make sense out of moral language (such language involving moral facts, moral arguments, and moral truth) without endorsing moral realism by explaining how various particular moral statements can be coherent without moral realism. Even so, slow track quasi-realism does not require us to make the assertion that all moral language is perfectly consistent. “Slow track quasi-realism” is often contrasted with “fast track quasi-realism.” See “quasi-realism” for more information.

**social construct** – Something that exists because of collective attitudes and agreement. For example, money is a social construct that would not exist without people having certain collective attitudes.

**social construction** – The ability of collective attitudes and actions to create something. For example, our collective attitudes and actions create money, language, and the Presidency of the USA. These things would stop existing if we no longer believed in them.

**social contract** – The implicit mutual agreement or common acceptance of laws or ethical principles. A social contract does not have to be consciously agreed-upon. It's an explanation for the legitimacy of laws or ethical principles insofar as we prefer to have them given the choice (and we could rationally agree to them).

**social contract theory** – (1) A theory that explains the legitimacy of laws or ethical principles in terms of a “social contract.” (2) The view that ethics originates from a social contract. Perhaps what's morally right and wrong is based on the social contract (what people agree is right or wrong within their society).

**social convention** – See “convention.”

**social darwinism** – The view that the people should fight for survival through competition, such as through free-market capitalism. It is thought that those who do well in society (e.g. by making lots of money) are superior and deserve to do well, but that those who don't do well deserve not to do well. Social darwinists believe that helping failing groups (e.g. poor people) will help keep those groups around when it would be better to let the groups die out.

**social progress** – For a culture to be improved through changes in political institutions, economic systems, education, technology, or some other cultural factor. Technological improvement is perhaps the least controversial form of social progress. Also see “sociocultural evolution” for more information.

**social reality** – Reality that exists because of the collective attitudes and actions of many people. For example, money, language, and the Presidency of the USA only exist because of the attitudes and actions of people. These things would stop existing if our attitudes and actions were changed in certain ways. See “institutional fact” for more information.

**socialism** – (1) An economy where the means of production (factories and natural resources) are publicly owned rather than privately owned. See “communism” for more information. (2) An economy that resembles communism to some degree, or that has more social programs than usual. This is also often called a “mixed system” (that has elements of both communism and capitalism).

**sociocultural evolution** – The view that people continue to find ways to adapt to their environment.
using technology, political systems, laws, improved education, and other cultural factors. See “social progress” for more information.

**socratic dialectic** – See “dialectic.”

**soft atheism** – To not believe in gods without believing gods don't exist. Soft atheism is a form of indecision—to neither believe in gods nor to believe they don't exist. “Soft atheism” is contrasted with “hard atheism.”

**soft determinism** – The view that the universe is deterministic and that people have free will. Soft determinists are compatibilists, but not all compatibilists are soft determinists.

**solipsism** – The view that one's mind is the only thing that exists. All other people and external objects are merely illusions or part of a dream.

**sophism** – A fallacious argument, generally used to manipulate or deceive others. Generally refers to “informal fallacies.”

**sophist** – (1) “Wise person.” (2) A rhetoric teacher from ancient Greece. Some of those teachers traveled to other countries, and questioned the taboos and cultural beliefs of the Greeks because those taboos and cultural beliefs were not shared by everyone in other countries. (3) Someone who is willing to use fallacious reasoning to manipulate the beliefs of other people. This sense of “sophist” is often contrasted with “philosopher.”

**sophistry** – Using nonrational argumentation that generally contain errors (flaws of reasoning). Sophistry generally refers to the manipulative use of “informal fallacies.”

**sound argument** – An argument that's valid and has true premises. For example, consider the following sound argument—“If all dogs are mammals, then all dogs are animals. All dogs are mammals. Therefore, all dogs are animals.”

**soundness** – See “sound argument” or “sound logical system.”

**spatial parts** – Physical parts of an object, such as molecules, hairs, or teeth. “Spatial parts” can be contrasted with “temporal parts.”

**speech act** – A communicative action using language. For example, commanding, requesting, or asking.

**speicesism** – Prejudice or bias against other species—humans would be speciesists for being prejudiced or biased against nonhuman animals. According to Peter Singer, speciesism refers to the bias of those who think that their own species are superior without any characteristic being the reason for that superiority (e.g. higher intelligence). If Singer is correct, then it could be morally right for one species to generally be treated better than other species, but it could also be morally right to treat some members of the species to be treated worse due to lacking certain positive characteristics.

**spillover** – A synonym for “externalities.”
spooky – Something is spooky if it is mysterious, supernatural, or other-worldly. We have a view of the world full of atoms and energy, and anything that isn't explained by physical science is going to be regarded with a skeptical attitude by many philosophers.

spurious accuracy – A synonym for “overprecision.”

square of opposition – A visual aid used in logic to derive various logical relations between categories and quantifiers. For example, the square shows that if we can know that not all \( x \) are \( y \), then we know that there is at least one \( x \) that is not a \( y \). If we know that not all animals are dogs, then we know that there is at least one animal that is not a dog.

state-by-state dominance – A synonym for “statewise dominance.”

state of affairs – A situation or state of reality. For example, the state of affairs of dropping an object while standing on the Earth will lead to a state of affairs consisting of the object falling to the ground.

statement – Classically defined as a sentence that's true or false. However, some philosophers argue that a statement could have some other truth value, such indeterminate (i.e. neither true nor false). For example, “this sentence is false” might be indeterminate.

statewise dominance – The property of a decision that can be said to be “superior” to another based on the decision-maker's preferences and the fact that the outcomes of the decision are more likely to be preferable. Every possible outcome of a statewise dominant decision is just as preferable as the other except at least one outcome must be more preferable. See “stochastic dominance” for more information.

stipulative definition – A definition used to clarify what is meant by a term in a specific context. Stipulative definitions are often given to avoid the ambiguity or vagueness words have in common usage that would make communication more difficult. “Stipulative definitions” can be contrasted with “lexical definitions.”

stochastic – Regarding probability calculus. Stochastic systems have predictable and unpredictable elements that can be taken to be part of a probability distribution. For example, See “probability calculus” and “probability distribution” for more information.

stochastic dominance – The property of a decision that can be said to be “superior” based on the decision-maker's preferences and the odds of leading to a preferable outcome. For example, a decision to eat food rather than starve to death has stochastic dominance assuming that the decision-maker would prefer to live and avoid pain.

stoicism – The philosophy of the Stoics. They thought virtue was the only good, that the virtuous are happy, that it's virtuous to embrace reality rather than condemn it, that the universe is entirely physical, and that a pantheistic deity assures us that everything that happens is part of a divine plan.

straw man – A fallacious form of argument committed when we misrepresent another person's arguments or beliefs in order to convince people that the arguments or beliefs are less reasonable than
they really are. For example, Andrea might claim that “stealing is generally wrong,” and Charles might then reply, “No. Andrea wants us to believe that stealing is always wrong, but sometimes stealing might be necessary for survival.” Straw man arguments are not “charitable” to another person's arguments and beliefs—to present them as rationally defensible as they really are.

**strong A.I. (artificial intelligence)** – A computer that has a mind of its own that is similar to the mind of a person.

**strong argument** – An inductive argument that is unlikely to have true premises and a false conclusion at the same time. Such an argument is thought to be a good reason to believe the conclusion to be true as long as we assume the premises are true. For example, “Half the people who had skin cancer over the last one-hundred years were given Drug X and their cancer was cured, and no one was cured who wasn't given Drug X. Therefore, Drug X is likely a cure for skin cancer.” “Strong arguments” are sometimes contrasted with “cogent arguments.”

**strong atheism** – A synonym for “hard atheism.”

**strong conclusion** – An ambitious conclusion. Strong conclusions require more evidence than weak conclusions. For example, consider the following argument—“If objects fall whenever we drop them, then the best explanation is that invisible fairies move objects in a downward direction. Objects fall whenever we drop them. Therefore, the best explanation for is that invisible fairies move objects in a downward direction.” In this case the conclusion is too strong and we should present better evidence for it or not argue for it at all.

**structuralism** – (1) In philosophy of mathematics, structuralism refers to the view that the meaning of mathematical objects is exhausted by the place each object has within a mathematical system. For example, the number one can be defined as the natural number after zero. Structuralism is a form of “mathematical realism.” (2) In literary theory, structuralism refers to an attempt to introduce rational criteria for literary analysis. Structuralism also refers to the view that there is a formal meta-language that can help us understand all languages. (3) In philosophy of science, structuralism refers to the view that we should translate theories of physics into formal systems.

**suberogatoy** – Actions or beliefs that are marginally harmful or inferior to alternatives, but are permissible. Inadvisable beliefs are compatible with rational requirements or normative epistemic constraints; and inadvisable actions are inferior to alternatives (or somewhat bad), but are compatible with moral requirements. For example, being rude is not generally serious enough to be “morally wrong,” but it is inadvisable. “Inadvisable” can be contrasted with “supererogatory.”

**subject term** – A synonym for “minor term.”

**subjective certainty** – A synonym for “psychological certainty.”

**subjective idealism** – The view that there is no material substance and that external reality exists only in our mind(s). For example, George Berkeley argued that only minds exist and that all of our experiences of the external world are caused by God. We all live in a shared dream world with predictable laws of nature.
subjective ought – What we ought to do with consideration of the knowledge of the person who will make a moral decision. What we subjectively ought to do is based on what is reasonable for us to do given our limited understanding of what will happen. For example, some utilitarians say we ought to do whatever we have reason to think will likely maximize happiness. We might say that a person who gives food to a charity is doing what she ought to do as long as it was very likely to help people and very unlikely to harm them, even if many of the people who eat the food have an unexpected allergic reaction. “Subjective ought” can be contrasted with “objective ought.”

subjective reason – See “agent-relative reason.”

subjective right and wrong – What is right or wrong with consideration of the knowledge of the person who will make a moral decision. Subjective right and wrong involves proper and improper moral reasoning. For example, we might say that a person ought not buy a lottery ticket because that person has no reason to expect to win, even if she really does buy one and win. We might say, “You won, but you had no reason to think you'd win. You just got lucky.” “Subjective right and wrong” can be contrasted with “objective right and wrong.”

subjectivism – A view that moral judgments refer to subjective states. For example, “stealing is wrong” would be true if the person who says it hates stealing, but it would be false if the person who states it likes stealing. Subjectivism has been criticized for being counterintuitive insofar as people who disagree about what's morally right or wrong do not think they are merely stating their subjective states. When we give arguments for a moral position, we often think other people should agree with us because morality is “not just a matter of taste.” If subjectivism is true, then moral disagreement would be impossible, and moral justification would plausibly be irrational.

subjectivity – See “ontological subjectivity” and “epistemic subjectivity.”

substance – (1) A type of foundational domain of reality. For example, materialists think matter is the only substance, and dualists think that both matter and mind are substances. (2) The most basic kinds of stuff that don't require anything else to exist. For example, According to Rene Descartes, there are two different substances: matter and mind.

substance dualism – See “dualism.”

substantive – Non-tautological. For example, saying that rocks fall because of gravity is a substantive claim about reality. See “tautology” for more information.

sufficient condition – A condition that assures us that something else will happen or exist. For example, hitting a fly with a hammer is sufficient to kill the fly. Sufficient conditions can be contrasted with “necessary conditions.”

sufficient reason – (1) A justification that is good enough to make a conclusion reasonably believed. (2) A state of affairs that has a sufficient cause or explanation for existing and being the way it is.

sui generis – Latin for “of it's own kind” or “unique in its characteristics.” A separate category that is different from all other categories. For example, some philosophers think minds are sui generis and can't be reduced to brain activity. This is related to the concept of being “irreducible” because anything
unique in this sense can't be fully understood in terms of its parts.

summum bonum – Latin for “the supreme or highest good.”

super man – See “overman.”

supererogatory – Actions that are good or praiseworthy, but are not morally required. They are “above the call of duty.” “Supererogatory” actions can be contrasted with “obligatory” and “suberogatory” actions.

supervenience – Something supervenes on something else if underlying conditions perfectly correlate with it. A state of affairs (A) supervenes on another state of affairs (B) if any change in (A) requires a change in (B). The mind seems to supervene on the brain, and morality seems to supervene on physical and psychological facts. Any change in the mind seems to require a change in the brain, and any change in the moral status of a situation (what one ought to do) seems to require different circumstance involving physical and psychological facts.

supporting argument – A synonym for “positive argument.”

suppressed conclusion – A synonym for “unstated conclusion.”

suppressed premise – A synonym for “unstated premise.”

syllogism – An argument consisting of two premises and a conclusion.

symbolic logic – A formal logical system devoid of content. Symbols are used to replace content and logical connectives. For example, “if all men are mortal, then Socrates is mortal” could be written as “A → B.” In this case “A” stands for “all men are mortal, “B” stands for “Socrates is mortal” and “→” stands for “implies.” See “formal logic” and “logical connectives” for more information.

syntactic completeness – A logical system is syntactically complete if and only if adding an unprovable axiom will produce at least one contradiction.

syntactical variable – A synonym for “metavariable.”

syntax – The rules of sentence-formation. For example, “Like chocolate do I” would be an improper way to say “I like chocolate” in the English language. Logical form has syntax, but lacks semantics. “Syntax” is often contrasted with “semantics.”

synthesis – (1) A combination of things that become something new. For example, the synthesis of copper and tin creates bronze. (2) In dialectic, it refers to a new thesis (hypothesis or mode of being) proposed to avoid the pitfalls of the old thesis. It is considered to be a “synthesis” as long as the new thesis has similarities to the old thesis because it's then a new and improved theory based on both the old thesis.

synthetic – Statements that cannot be true by definition. Instead, they can be true because of how they relate to something other than their meaning, such as how they relate to the world. For example,
“humans are mammals” is synthetic and can be justified through empirical science. “Synthetic” is the opposite of “analytic.”

**synthetic a priori** – Statements that are not true by definition or entirely justified by observation. David Hume seemed to overlook this category when he divided all knowledge into **matters of facts** and **relations of ideas**. Immanuel Kant coined this term and thought that “space and time exists” is an example of a synthetic *a priori* statement insofar as we can know that human beings require concepts of space and time in order to observe anything. However, Kant did not think we could know if space and time refers to anything other than as something that's part of our experience.

**tabula rasa** – Latin for “blank slate.” Refers to the hypothesis that people were born not knowing anything.

**tacit knowledge** – Knowledge that is not stated or consciously understood, but is unconsciously understood, intuitively held, or implied by one's other knowledge. Tacit knowledge is often attained or held without knowledge of the person who has it. “Tacit knowledge” can be contrasted with “explicit knowledge.”

**tautology** – (1) A statement with a logical form that guarantees that it is true. The statement “Socrates was a man or he wasn't a man” is true no matter what because it has the logical form “*a* or not-*a*.” (*"a"* is any proposition.) (2) A rule of replacement that has two forms: (a) “*a*” and “*a* and *a*” both mean the same thing. (b) “*a*” and “*a* and/or *a*” both mean the same thing. (“*a*” stands for any propositions) For example, “Socrates is a man” means the same thing as “Socrates is either a man or a man.”

**technê** – Greek for “know-how, craft, or skill.”

**teleology** – A system or view that's goal-oriented. Aristotelian teleology is the view that things in nature have a purpose and that they are good if they achieve their purpose well. Utilitarianism is also considered by many to be “teleological” because it posits that maximizing happiness is the appropriate goal for people.

**temporal parts** – Time-dependent parts of a persisting thing often thought of as time-slices. The view that persisting things have temporal parts is based on the assumption that a persisting thing only exists in part at any given time-slice. We can talk about the temporal parts of a person in terms of the person yesterday, the person today, and the person tomorrow; and the person is thought to only exist in her entirety given every moment of her existence. We can talk about a person in any given time slice (such as August 3, 10:30 am), but that is not the entirety of the person. One reason some philosophers believe in temporal parts is because it can explain how an object can have two conflicting properties, such as how a single apple can be both green (while growing) and red (when ripe). If it has temporal parts, then we can say it is green in an earlier time-slice, and red in a later time-slice.

**temporal modality** – What makes a proposition true or false based on whether it is being applied to the past, present, or future. For example, dinosaurs existed in the past, but they do not presently exist.

**term:** See “terminology.”

**terminology** – (1) A word or phrase used to refer to something. For example, “critical thinking” is a
term consisting of two words used to refer to a single concept. (2) A collection of words or phrases used to refer to something. For example, the technical concepts philosophers discuss involves a lot of terminology.

testability – The property of a hypothesis or theory that makes it possible to produce experiments that can reliably provide counterevidence against the theory. It can be said that something is testable in this sense if (a) there are certain events that could occur that would be incompatible with the theory and (b) the incompatible events could be produced in repeatable experiments.

testimonial evidence – The experience of a person used as evidence for something. Testimonial evidence is often fallacious, but it can count for something and be used when we use inductive reasoning. For example, if hundreds of people all find that a drug effectively works for them and no one found that the drug was ineffective, then that would be evidence that the drug is really effective. See “anecdotal evidence.”

theism – The view that one or more personal gods exist.

theocracy – A government dominated or ruled by a theistic religious group. The rulers of theocracies claim to know the mind and will of one or more god to legitimize their power.

theological noncognitivism – The view that judgments concerning gods are neither true nor false. Theological noncognitivists might think that there is no meaningful concept of “gods.” In that case statements about gods would be nonsense. For example, some philosophers have argued that it's impossible to prove gods exist and that only theories we can prove to be true are meaningful. (See “verificationism” for more information.)

theology – The systematic study of gods. Also see “natural theology” and “revealed theology.”

theorem – (1) Theoretical propositions that are capable of being proven. (2) A mathematical proposition that was proven from other known propositions.

theoretical knowledge – See “theoretical wisdom.”

theoretical wisdom – The attainment of knowledge concerning the nature of reality and logic. Aristotle contrasts “theoretical wisdom” with “practical wisdom.”

theoretical virtues – The positive characteristics that help justify hypotheses or theories, such as simplicity and comprehensiveness. Theories that have greater theoretical virtues than alternatives are “more justified” than the alternatives.

theory – A comprehensive explanation for various phenomena. A hypothesis is not necessarily different from a “theory,” but the term 'theory' tends to be used to refer to hypotheses that have been systematically defended and tested without facing strong counter-evidence. In science, theories are taken as being our best explanations that should be believed and relied upon for practical everyday life. However, philosophers are often unable to say when a philosophical theory is the most justified and generally don't insist that a philosophical theory should be accepted by everyone.
theory-laden observation – Observations are theory-laden when they are influenced by assumptions or interpretation. For example, visual experience is a collection of color blotches, but we interpret the experience as a world extended in space and time.

thesis – (1) An argumentative essay. For example, a doctoral thesis. (2) The conclusions made within an argumentative essay. For example, Henry David Thoreau concluded that people should stop paying their taxes in certain situations in his essay “Civil Disobedience.” (3) The claim or solution made within a dialectic. For example, capitalism could be considered to be a thesis used to live our lives with greater freedom, according to a Hegelian dialectic. See “dialectic” for more information.

thick concepts – Concepts that are fleshed out and involve a detailed understanding, such as deception and the veil of ignorance. These concepts are not as indefensible to us as general concepts that are less fleshed out, such as belief and desire. “Thick concepts” can be contrasted with “thin concepts.”

thin concepts – Concepts that are very general and perhaps even indispensable, such as right, wrong, belief, and desire. These concepts relate to our experiences and can be explained in further detail by competing interpretations or theories. “Thin concepts” can be contrasted with “thick concepts.”

thing in itself – Reality or a part of reality as it actually exists apart from flawed interpretation or perception.

third-person point of view – What it's like to understand or experience the behavior and thoughts of other people as an observer. For example, to view another person eating breakfast is done from the third-person point of view. The “third-person point of view” is often contrasted with the “first-person point of view.”

token – (1) A particular concrete instance or manifestation. For example, some philosophers argued that every token mental event (such as a particular pain) is identical to a token physical event (such as something happening in the brain), but pain in general is not necessarily caused by any generalized type of physical event. For example, the same experience of pain might also be identical to some mechanical activity of a sentient robot. “Tokens” are often contrasted with “types.” (2) A symbolic object or action. For example, coins can be given out to be used as money at a carnival. (3) To have members of a different group just to give the impression of inclusiveness. For example, to have a black man play the part of an expendable character in a horror movie. The black man is often the first of the main characters to die in a horror movie.

totalitarianism – A political system where people have little to no freedom, and the government micromanages many details of the lives of citizens.

thought experiment – An imaginary situation used to clarify a hypothesis or support a particular belief. For example, someone might say, “Hurting people is never wrong.” Another person might reply with a thought experiment—“Imagine someone decided to beat you up just because you made her angry. Don't you think that would be wrong?”

transcendence – (1) The property of being beyond or outside. (2) Being beyond and independent of the physical universe. Some people believe God is transcendent. “Transcendence” of this type can be contrasted with “immanence.”
transcendental apperception – According to Immanuel Kant, this is what makes experience possible. It is the unity and identity of the mind—our ability to have a single point of view or field of experience. Without a transcendental apperception, our experiences would be free-floating, lack continuity, and lack unification. “Transcendental apperception” can be contrasted with “empirical apperception.”

transcendental argument – An argument concerning what is required (or might be required) for a state of affairs. Transcendental arguments are often arguments made involving the necessary condition for the possibility of something else. For example, visual experience seems to require the assumption that an external world exists that can be seen (or we would only see blotches of colors).

transcendentalism – A literary, political, and philosophical field that was based on the Unitarian church. Transcendentalists often criticized conformity, criticized slavery, and encouraged solitude in the wild outdoors.

transparency – (1) The property of an epistemic state that guarantees that we know when the epistemic state exists. Weakly transparent epistemic states guarantee that we know we have them, and strongly transparent epistemic states guarantee that we know when we have them and when we don't. For example, pain is a plausible example of a strongly transparent epistemic state. (2) The property of being in the open without pretense. (3) The property of being see-through. For example, glass windows are usually see-through.

transposition – A rule of replacement that states that “if a, then b” means the same thing as “if not-b, then not-a.” (“a” and “b” stand for any two propositions.) For example, “if Socrates is a dog, then Socrates is a mammal” means the same thing as “if Socrates is not a mammal, then Socrates is not a dog.”

Trigger's Broom – A broom used in a thought experiment in which all the parts of the broom have been replaced. This encourages us to ask the question, “Is it still the same broom?”

true – The property that some propositions have that makes them based on reality. According to Aristotle, a statement is true if it corresponds with reality. For example, “Socrates was a man” is true. However, there might be other uses of the word 'true,' such as, “it is true that the pawn can move two spaces forward when it is first moved in a game of Chess.” Many such “truths” are based on agreements or human constructions and are not factual in the usual sense of the word. See “correspondence theory of truth” and “deflationary theory of truth” for more information. “True” is the opposite of “false.”

truth-functional – Complex propositions using logical connectives that can be determined to be true or false based on the truth-values of the simple propositions involved. For example, “dogs are mammals, and cats aren't reptiles” is a complex proposition that contains two simple propositions: (a) “Dogs are mammals” and (b) “cats aren't reptiles.” In this case we can determine the truth by knowing the truth of the simple propositions. Both propositions are true and form a single conjunction, so the complex proposition is also true.

truth preservation – The property of reasoning that can't have true premises and false conclusions. See “valid” for more information.
truth table – A visual display used in formal logic that has columns and rows that are used to determine which propositions are true or false, what arguments are valid, what propositions are equivalent, etc. For example, the truth table for “p and/or q” is used to show that it's true unless both p and q are false at the same time. (“George Washington is either a person and/or a dog” because at least one of those options are true.) This truth table looks like the following:

<table>
<thead>
<tr>
<th>p</th>
<th>q</th>
<th>p ∨ q</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>T</td>
<td>T</td>
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<tr>
<td>T</td>
<td>F</td>
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<tr>
<td>F</td>
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<td>F</td>
</tr>
</tbody>
</table>

truth tree – A visual-oriented method used in formal logic to determine if a set of propositions are contradictory or consistent; or if an argument is valid or invalid; etc. For example, consider the argument form “if P, then Q; if Q, then R; therefore, if P, then R.” The following truth tree proves this argument form to be valid:

truth-values – Values involving the accuracy or factual nature of a proposition, statement, or belief. For example, true and false. There could be others, but those are the only two non-controversial truth-values.
tu quoque – Latin for “you too.” Often refers to a type of fallacious argument that implies that someone's argument should be dismissed because the person who made the argument is a hypocrite. For example, a smoker might argue that cigarettes are unhealthy and someone else might reply, “But you smoke, so smoking is obviously not unhealthy!” See “ad hominem” for more information.

Turing machine – A machine that has rules or commands that cause it to make certain motions based on symbols. Turing machines are capable of using finite formal systems of logic and mathematics. Digital computers are a type of Turing machine.

Twin Earth – A hypothetical world or planet exactly like ours in almost every respect. For example, Hilary Putnam invented this concept to introduce a world with a substance exactly like water that has a different chemical composition. See “quater” and “possible world” for more information.

type – A kind of thing or a general category. For example, some philosophers argued that every mental event type (such as pain) is identical to a physical event type (such as brainwaves). This would imply that the same experience of pain could never be identical to some mechanical activity of a sentient robot—it would therefore be impossible to have a robot with the same thoughts and feelings as a human being. “Types” are sometimes contrasted with “tokens.”

Übermensch – German for “overman.”

underdetermination – The status of having insufficient evidence to know what we should believe. For example, taking a pill and being cured of an illness shortly afterward could be evidence that the pill cured the illness, but it's also possible that the person would be cured of the illness regardless of taking the pill. Fallacies related to underdetermination include “hasty generalization,” “cum hoc ergo propter hoc” and “anecdotal evidence.”

undistributed middle – A fallacious categorical syllogism committed when the middle term is neither distributed in the major premise nor the minor premise. For example, “All dogs are mammals. All animals are mammals. Therefore, no dogs are animals.” See “distribution” and “middle term” for more information.

universal – (1) What's true for everyone or everything relevant. For example, it's a universal fact of humans that they are all mammals. (2) A concept can be said to be “a universal” when it refers to a type of thing (e.g. goodness). There were realists who thought universals existed apart from our generalizations, conceptualists who thought universals existed only in the mind, and nominalists who thought that universals were merely convenient “names” we give to describe various particular objects. The opposite of a “universal” is a “particular.”

universal quantifier – A term or symbol used to say something about an entire class. For example, “all” and “every” are universal quantifiers used in ordinary language. “All horses are mammals” means that if a horse exist, then it is a mammal.” This statement does not say that any horses actually exist. The universal quantifier in symbolic logic is “∀.” See “quantifier” for more information.

Universal Reason – The mental or intelligent element of the universe conceived as a deity by the Stoics. The Stoics saw the entire universe as a god—matter is the body and Universal Reason is the mind. They believed that Universal Reason has a divine plan and determines that everything that
happens in the universe happens for a good reason.

**universal truth** – A truth that always applies, such as the truth of the law of non-contradiction.

**universalizability** – Something applicable to everyone. Immanuel Kant thinks that moral principles must be universalizable in that everyone ought only act for a reason that one could will for someone else who is in the same situation. Universalizability seems necessary to avoid hypocrisy. For example, it would be wrong for us attack another person just because she makes us angry because it would be wrong for other people to attack us just because we make them angry.

**univocal** – Something that completely lacks ambiguity and only has one possible meaning. “1+1=2” is a plausible example. “Univocal” is often contrasted with “equivocal.”

**unstated assumption** – An assumption of an argument that is not explicitly stated, but is implied or required for the argument to be rationally persuasive. The assumption could be a premise or conclusion. For example, consider the argument “the death penalty is immoral because it kills people.” This argument requires a hidden assumption—perhaps that “it's always immoral to kill people.”

**unstated conclusion** – A conclusion of an argument that is not explicitly stated, but is implied. For example, consider the argument “the death penalty kills people and it's immoral to kill people.” This argument implies the unstated conclusion—that the death penalty is immoral.

**unstated premise** – A premise of an argument that is not explicitly stated, but is implied or required for the argument to be rationally persuasive. For example, consider the argument “All humans are mortal because they're mammals.” This argument requires an unstated premise—that “all mammals are mortal.”

**useful fictions** – Nonfactual concepts used for thought experiments or philosophical theories. For example, *social contracts*, the *veil of ignorance*, *quater*, *grue*, or the *impartial spectator*. These fictions can illuminate various philosophical issues or intuitions. Sometimes they present simplified situations to isolate important distinctions. For example, the concept of quater is of a chemical functionally equivalent to water that's just like it in every single functional way, but it's not H₂O. Quater illuminates the intuition that the word 'water' does not merely refer to a chemical with certain functions because the chemical composition is also important.

**usefulness** – The importance of something for attaining a goal. See “instrumental value.”

**utilitarianism** – A moral theory that states that happiness or pleasure is the only thing with positive intrinsic value, and suffering or pain is the only thing with intrinsic disvalue. Right actions are determined by what action produces the *greatest good* compared to the alternatives, and all actions are wrong to the degree that they fail to produce the greatest good.

**utility** – (1) Relating to causing happiness. For example, the “principle of utility.” (2) The degree something causes pleasure or happiness, and reduces pain or suffering. An action that has the most utility causes more happiness (or pleasure) than the alternatives. See the “greatest happiness principle.” for more information. (3) The property of being useful or to leading to a preferable state of affairs. See
utility function – How much an agent values the outcome of various decisions she has to choose from based on incomplete information concerning how the world is or will be. For example, a person might have to choose whether or not to wear sunscreen depending on how long she expects to spend in the sun while spending time at the beach. Perhaps if she spends at least three hours at the beach, then odds are that she will get a sunburn unless she wears sunscreen. However, wearing sunscreen could be a waste of time and resources if she only spends on hour at the beach.

utility theory – A view concerning how we should make decisions based on how much we value the outcomes of various decisions we could make. Decisions that are likely to lead to a desirable outcome could be considered to be “rational” and those that are unlikely to could be said to be “irrational.” For example, trying to eat food by going to sleep would generally be irrational because the odds of it leading to a desired outcome is low.

vagueness – Words and phrases are vague when it's not clear where the boundaries are. For example, it's not clear how many hairs can be on a person's head for the person to be considered to be “bald.” Vagueness often makes it hard for us to know where to “draw the line.” “Vagueness” is often contrasted with “ambiguity.”

valid argument – An argument is valid when it has a logical form that assures us that true premises guarantee the truth of the conclusion. It is impossible for a valid argument to have true premises and a false conclusion at the same time. For example, consider the following valid argument—“If Socrates is a dog, then Socrates is a mammal. Socrates is a dog. Therefore, Socrates is a mammal.” The argument has the valid argument form “If \( A \), then \( B \); \( A \); therefore, \( B \).” “Valid” is the opposite of “invalid.” See “logical form” for more information.

validity – (1) See “valid argument,” “valid formula,” or “valid logical system.” (2) Sometimes strong inductive arguments are said to be “inductively valid.” See “strong argument” for more information.

value – What we describe as good or bad. Positive value is also known as “goodness.” See “intrinsic value,” “extrinsic value,” “instrumental value,” and “inherent value.”

veil of ignorance – According to John Rawls, the best way to know which principles of justice are the most justified would require people to be in a position with full scientific knowledge but without knowing who they will be in society (rich, poor, women, men, etc.) We are to imagine that they would be risk-adverse and would not grant people of any particular group unfair advantages.

Venn Diagram – A visual representation of a categorical syllogism that is generally used as a tool to determine if it's logically valid or invalid. For example, consider the argument form, “All \( A \) are \( B \). All \( B \) are \( C \). Therefore, All \( A \) are \( C \).” The following Venn Diagram proves this argument form to be valid because \( A \) is shaded in everywhere other than where \( A \) overlaps with \( C \) (which is a representation of the conclusion):
verificationism – (1) The “verification theory of meaning.” The view that statements are meaningless unless it is possible to verify that they are true. For example, if we can't prove that creationism is true, then it would be considered to be meaningless. (2) The “verification theory of justification.” The view that statements are unjustified unless we can somehow verify that they are true. For example, the statement “induction is reliable” would be said to be unjustified because it's plausible that we can't verify that it's true. See the “problem of induction” for more information.

vicious circularity – An objectionable type of circular reasoning or argumentation. For example, “Socrates is a man because Socrates is a man” is a viciously circular argument. However, “coherentism” is the view that circular types of justification are not vicious as long as enough observations and/or beliefs are involved. Perhaps the more observations and beliefs are involved, the less vicious circular reasoning is. For example, an argument of the form “a because b, b because c, and c because a” might be less vicious argument with the form “a because b, and b because a.”

vicious regress – An objectionable infinite regress. Consider the view that beliefs are unjustified unless we justify them with an argument (or argument-like reasoning). In that case we will have to justify all our beliefs with arguments that also have premises that must also be justified via argumentation. This view requires that justified beliefs be justified via infinite arguments. This regress could be considered to be “vicious” insofar as the solution of a problem has the same problem it's supposed to solve. However, “infinitism” is the view that this infinite regress is not vicious.

virtue – A positive characteristic, which is generally discussed in ethics. Courage, moderation, and wisdom are the three most commonly discussed virtues. Some people are also said to be “virtuous” for being “good people.” Virtues can describe traits that make something better. For example, we could talk about “theoretical virtues” that make some theories more justified than others, such as comprehensiveness. Another translation of “virtue” from ancient Greek philosophy is “excellence.”

virtue epistemology – Epistemic theories that (a) focus on normative considerations, such as values, norms, and/or virtues (i.e. positive characteristics) that are appropriately associated with being reasonable; and (b) judge people as the primary bearer of epistemic values (e.g. virtues, rationality, reasonableness, etc.). Virtue epistemologists often talk about “intellectual virtues”—positive characteristics of people that help them reason properly, such as being appropriately open-minded and
skeptical. See “virtue responsibilism” and “virtue reliabilism” for more information.

**virtue ethics** – Ethical theories that primarily focus on virtues, vices, and the type of person we are rather than “right and wrong.” Courage, moderation, and wisdom are virtues that many virtue ethicists discuss.

**virtue reliabilism** – A type of “virtue epistemology” that views “intellectual virtues” in terms of faculties; such as perception, intuition, and memory.

**virtue responsibilism** – A type of “virtue epistemology” that views “intellectual virtues” in terms of traits, such as open-mindedness, skepticism, humility, and conscientiousness.

**virtuous** – Having virtues or exhibiting virtues close to an ideal. See “virtue” for more information.

**vice** – Negative traits, such as cowardice, addiction, and foolishness. Vices can describe a person's character traits or objectionable traits that make something else worse. For example, we talk about “vicious circularity” and “vicious regresses.”

**vicious** – (1) Having vices or exhibiting virtues to a very low degree. See “vice” for more information. (2) Being evil, aggressive, or violent. (3) Severely unpleasant.

**will to power** – Friedrich Nietzsche's speculative metaphysics and psychological views that he believes to be compatible with natural science, but using better metaphors. Will to power is an alternative to free will and an alternative to laws of nature. One interpretation of will to power is that instead of claiming that free will can cause our actions in an indeterministic way, we do whatever our internal driving force dictates; and instead of claiming that laws of nature force objects into motion, the internal driving force of each object dictates how it moves. Will to power relates to psychology in that the unifying driving force of people and nonhuman animals is to attain greater power (i.e. personal freedom, self-control, health, strength, and domination over others).

**wisdom** – The ability to have good judgment. Wisdom is sometimes used refer to a person's level of virtue and/or theoretical knowledge. See “practical wisdom” and “theoretical wisdom” for more information.

**weak analogy** – A fallacy that's committed when an argument concludes that something is true based on an analogy. For example, swords and smoking can both kill people, but we can't use that similarity to conclude that cigarette smoke is made of metal (just like swords). That would be a weak analogy. Not all arguments using analogies are fallacious. See “argument from analogy” for more information.

**weak argument** – Inductive arguments that have conclusions that are too strong given the evidence. The conclusion is not sufficiently supported by the evidence. For example, “three people took a drug last week and didn't get sick, so the drug probably prevents people from getting sick.” Arguments that are too weak commit the “hasty generalization” fallacy.

**weak atheism** – A synonym for “soft atheism.”

**weak conclusion** – A modest conclusion. Weak conclusions require less evidence than strong
conclusions. For example, consider the following argument—“If a light goes on at my neighbor's house, then the best explanation is that a person is in the house. The light went on at my neighbor's house. Therefore, the best explanation is that a person is in the house.” In this case the conclusion is weak and we would be unreasonable to demand very strong evidence in its favor as a result.

**weakness of will** – A situation of doing what one knows or believes to be morally wrong (i.e. the wrong thing to do, all things considered). For example, a person might think that stealing one hundred dollars from a friend is the morally wrong thing to do, and do it anyway.

**well-formed formula** – A properly-stated proposition of formal logic. For example, “a or b” is a well-formed formula, but “a b or” is not. (“a or b” could stand for any either-or statement, such as “either something exists or nothing exists.”)

**WFF** – See “well-formed formula.”

**working hypothesis** – A hypothesis that is provisionally accepted and could be rejected when new evidence is presented.

**world of ideas** – The realm of the Forms. See “Plato's Forms” for more information.

**worldview** – A comprehensive understanding of everything (and how everything relates). Two worldviews could theoretically be equally justified and there might be no way to know which worldview is more accurate. Worldviews are likely influenced by cultures and are often influenced by religions. Worldviews are thought to help us interpret our experiences and influence perception.

**worm theory** – See “perdurantism.”

**wrong** – (1) Incorrect or inappropriate as opposed to “right.” For example, people who believe the Earth is flat are wrong. (2) “Morally wrong” as opposed to “morally right.” For example, murder is morally wrong.

**youthism** – Prejudice against younger people. A form of “ageism.” For example, the view that older people are generally more qualified for a job.

**zeitgeist** – German for “the spirit of an age.” It's often used to refer to the biases, expectations, and assumptions of a group of people. Compare “zeitgeist” with “worldview.”

**zombie** – (1) Something that appears to be a human being or person that behaves exactly as we would expect a thinking person to behave, but actually has no psychological experiences or thoughts whatsoever. For example, a zombie could say, “I love coffee” but can neither taste coffee nor think it loves it. (2) In ordinary language, “zombie” refers to an undead person or walking corpse that either has no mind of its own or has an irresistible impulse to try to eat people.