Critical Terminology for Theory of Knowledge

The following glossary offers preliminary definitions for some key terms that arise frequently in the literature of the theory of knowledge. Keep in mind that in some cases the precise definition is a matter of debate; in particular, do not assume that a term in our readings must be used in the sense given here.

**Abstract entity**: An individual thing not capable of entering into causal relations with any other individual things. Thus, the number 5 is generally considered to be an abstract entity, as it is an individual thing that has no causal powers or relations. As the term is typically used, abstract entities are neither located in space nor localized in time. Contrast *concrete entity*.

**Antecedent/consequent**: In a conditional statement of the form *If A, then C*, A is the antecedent and C is the consequent. See also *conditional proposition, conditions, (logically) necessary or sufficient*.

**A priori/a posteriori**: An individual S knows that P *a priori* if and only if S knows that P independently of any evidence for P acquired by experience. S knows that P *a posteriori* if and only if S knows that P in some manner that depends essentially on evidence acquired by experience.

**Abductive inference**: An broadly inductive argument or inference of the form:

1. E
2. H is the best available explanation of E

   Therefore, probably,

3. H

For example: “Contingent beings exist; the best available explanation of the existence of contingent beings is that they were created by a necessary being; therefore, probably, contingent beings were created by a necessary being.”

**Abductive reasoning**: A form of reasoning from the fact that H is the best available explanation for some known fact E to the conclusion that E confirms H. This form of reasoning is weaker than *abductive inference* (see above), since the conclusion is confirmatory rather than categorical.

**Analysandum/analysans**: The *analysans* is a set of analytical or defining conditions offered for a particular concept in a philosophical analysis. The *analysandum* is the concept for which the analysis is offered.

**Analysis**: An analysis of a particular concept C is a set of conditions that gives logically necessary and sufficient conditions for the satisfaction of C in a non-trivial way, where being non-trivial involves (at least) the condition that the analysis does not contain C as a part.
For example, the concept *square* may be analyzed non-trivially as a four-sided closed Euclidean plane figure that is both equiangular and equilateral. But to say that it is a four-sided closed plan figure *that is square* would not be an analysis, since the final clause makes the proposal circular.

**Analytic/synthetic:** A proposition is analytic if and only if its truth value is guaranteed by the meanings of its terms; it is synthetic if its truth value is not guaranteed by the meaning of its terms.

For example, *All bachelors are unmarried* is an analytic truth, *All squares have five sides* is an analytic falsehood, and *All bachelors are unhappy* is a synthetic claim.

**Axiomatic:** Having the status of an axiom, i.e., a self-evident truth or first principle.

**Basic belief:** A proposition p is a basic belief for S at t if and only if S, at t, is justified in believing that p independently of any evidence in favor of p provided by any other proposition that S believes.

For example, a belief in a self-evident truth such as *All squares are squares* is basic for anyone who understands the meanings of the terms. But arguably not all basic beliefs are analytic truths.

**Brute fact:** A fact F is a brute fact within some system S if and only if there is, within S, no cause or explanation for F.

**C-inductive argument:** An argument that seeks to show that a particular piece of evidence confirms its conclusion. This is a type of confirmatory argument. See also categorical argument, P-inductive argument.

**Categorical argument:** An argument that seeks to establish some definite positive epistemic appraisal for its conclusion: that the conclusion is true, or has a probability above some specified level, etc. See also C-inductive argument, confirmatory argument, P-inductive argument.

**Cause and effect:** A kind of relation in which one entity or event, called the cause, brings about or helps to bring about another entity or event, called the effect. The proper analysis of cause and effect is a matter of vigorous dispute in philosophy. On most analyses, a cause must exist prior to the time it produces a given effect; on most analyses, nothing can cause its own existence.

**Conditional proposition:** A proposition formed by joining two propositions (not necessarily distinct) in the schema “If ___, then ___.” When used without a modifier or with the modifier “material,” the term refers to a proposition that is true if and only if either the proposition in the left blank is false or the proposition in the right blank is true. See also antecedent/consequent, subjunctive conditional.

**Conditions, (logically) necessary or sufficient:** A proposition S is a sufficient condition for a proposition N if and only if, if S is true, then N is true; conversely, N is a necessary condition for S under the same condition.
Typically, what is meant by necessary and sufficient conditions is something stronger: that the conditions are logically necessary or logically sufficient. S is logically sufficient for N if and only if, necessarily, if S, then N; N is logically necessary for S under the same condition.

States of affairs may be substituted for propositions *mutatis mutandis*. Thus, *Snoopy’s being a dog* is logically sufficient for *Snoopy’s being an animal*, and *Snoopy’s being an animal* is logically necessary for *Snoopy’s being a dog*.

**Confirmatory argument:** An argument that seeks to establish the modest conclusion that a certain hypothesis H is confirmed—made more plausible or more probable—by a particular body of evidence E, whether or not it is the case that E makes H more plausible or probable than ¬H.

**Conjunction:** A conjunction of properties is a property that consists of two properties joined with the word *and*. For example, *being a dog and being a World War I flying ace* is the conjunction of the two properties *being a dog* and *being a World War I flying ace*.

A conjunction of propositions is a proposition that consists of two propositions joined with the word *and*. For example, *Snoopy is a dog and Snoopy is a World War I flying ace* is the conjunction of the two propositions *Snoopy is a dog* and *Snoopy is a World War I flying ace*. More loosely, we may speak of a conjunction of many propositions rather than just two.

States of affairs may be substituted for propositions *mutatis mutandis*.

**Contingent proposition:** A proposition P is contingent if and only if it is both possible that P and possible that not P. In symbols, (◊P & ◊¬P). Equivalently, P is contingent if and only if it is neither necessarily true nor necessarily false: (∼□P & ∼□¬P).

**Contradiction:** A proposition that has or may be represented in the form (P & ∼P). More generally, any proposition that entails (P & ∼P). All contradictions are necessary falsehoods.

**Counterfactual conditional:** A *subjunctive conditional* with a false antecedent.

**Definiens/definiendum:** A definition offered for a given term or concept. The term or concept to be defined is the *definiendum*.

**Disjunction:** A proposition formed by joining two propositions with the word *or*. Thus, *Snoopy is a dog or Snoopy is a World War I flying ace* is the disjunction of the two propositions *Snoopy is a dog* and *Snoopy is a World War I flying ace*.

**Eliminative:** A theory is eliminative if it denies the existence of a certain sort of entity. It maintains that any term that appears to refer to an entity of that sort is actually nonreferential. See also *reductive*.

**Empirical:** (1) Pertaining to the natural world. (2) Known *a posteriori*. 

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**Entailment**: To say that a proposition P entails a proposition Q is to say that, necessarily, if P is true, Q is true. Symbolically, □(P→Q). See also **conditions, (logically) necessary or sufficient**.

**Epistemic/epistemological**: Pertaining to knowledge.

**Equivalence, logical**: To say that two propositions P and Q are logically equivalent is to say that, necessarily, P is true if and only if Q is true. Symbolically, □(P↔Q).

**Event**: An occurrence at a particular time. A physical event is something that happens in a particular region of space at a particular time.

For example, the melting of an ice cube on my kitchen table between 10:00 a.m. and 10:30 a.m. on November 17, 2010 is an event. Events may be negative as well as positive: the non-melting of an ice cube in my freezer between 10:00 a.m. and 10:30 a.m. on November 17, 2010 is also an event.

**Exemplification**: An entity e exemplifies or instantiates a property P or a relation R if and only if e has P or e bears R to something. In an extended sense of the term, a concept may be said to be exemplified by any item to which it applies.

**Explanandum/explanans**: The explanans is a set of propositions offered in an explanation for a given proposition or state of affairs. The explanandum is the proposition or state of affairs to be explained.

**Externalism**: Externalism about knowledge is the position that whatever it is that needs to be added to true belief that P to make it knowledge that P is a matter of something more than the internal features of an individual’s cognitive state. Externalism about justification is the view that justification is not simply a function of the internal features of an individual’s cognitive state, whether or not justification is sufficient to turn true belief into knowledge.

**Infinite**: Having a cardinality greater than any finite number. The members of an infinite set cannot be put into one-to-one correspondence with the members of any finite set. There are infinitely many distinct levels of infinity. The “smallest” infinite cardinal is ℵ₀, pronounced “aleph null,” which is the cardinality of the set of the counting numbers {1, 2, 3, ...}

**Instantiation**: See exemplification.

**Internal**: Introspectively accessible to an individual; not external or public.

**Internalism**: Internalism about knowledge is the position that whatever it is that needs to be added to true belief that P to make it knowledge that P is a matter of the internal features of an individual’s cognitive state. Internalism about justification is the view that justification is always a function of the internal features of an individual’s cognitive state, whether or not justification is sufficient to turn true belief into knowledge.
**Justification:** The term “justification” is used in two senses. Broadly, it is sometimes taken to be synonymous with whatever needs to be added to true belief in order to produce **knowledge.** Narrowly, it refers to those **internal** features of an individual’s cognitive state that make it reasonable or rational for him to believe a given proposition.

**Knowledge:** Traditionally, following Plato, knowledge is understood as justified true belief (JTB). In the late 20th century, this definition has been challenged and a variety of other proposals have been advanced. In nearly all of them, knowledge entails (at least) true belief; the debate is chiefly over what other characteristic or characteristics it possesses.

**Metaphysics:** The study of the fundamental categories of reality.

**Modal logic:** The branch of logic that deals with the modes of truth and falsehood such as possibility, necessity, impossibility, and contingency.

**Naturalism:** The doctrine that the only things that exist are natural things of the sort studied by or required for the natural sciences. When conjoined with the view that all natural things are material or physical, naturalism entails **materialism** or **physicalism.**

**Objective:** Not ontologically dependent on a mind. The existence of a mental entity (i.e. a soul or spirit) may be said to be objective if it is not ontologically dependent on any *other* mind. Contrast **subjective.**

**Ontic/ontological:** Pertaining to being; metaphysical.

**Ontological dependence:** A thing A is ontologically dependent on another thing B if and only if A cannot exist unless B exists. By extension, a type of thing F is ontologically dependent on a different type of thing G if and only if nothing of type F can exist unless something of type G exists. Sometimes the language of ontological dependence is restricted to concrete things or types of things.

**Ontology:** See **metaphysics.**

**P-inductive argument:** An argument that seeks to establish that its conclusion is more probable than not. This is a type of **categorical argument.** Compare and contrast **C-inductive argument, confirmatory argument.**

**Paradox:** A puzzle that arises when each member of a set of propositions appears to be true, but the **conjunction** of the members of that set entails a contradiction.

**Physicalism:** The doctrine that only physical things exist. When conjoined with the view that all physical things are material—a claim that may be controversial on some interpretations of modern science (e.g. are fields material?)—physicalism entails materialism. See also **materialism, naturalism.**
Possible world: A maximal, consistent state of affairs; alternatively, a set $S$ of propositions such that (1) $S$ is logically consistent, and (2) for any proposition $P$, either $S$ entails $P$ or $S$ entails $\neg P$.

Proposition: Any abstract entity that is either true or false, but not both. Propositions are typically expressed by sentences in the indicative mood uttered sincerely with assertoric force.

Reductio ad absurdum: A form of argument in which it is shown that a set $S$ of propositions entails a contradiction; in consequence, a member of $S$ is rejected as false.

Reductive: A theory is reductive if and only if it maintains that the entities of a certain sort, though real, are not fundamental; they can be reduced to, that is, analyzed in terms of, entities that do not belong to that category. Thus, a reductive theory of chairs might hold that, although chairs exist, strictly speaking, chairs may be analyzed in terms of subatomic particles. See also eliminative.

Self-evident proposition: A proposition that is obviously true to anyone who is capable of considering the question of whether it is true. See also axiomatic.

Set: An abstract collection of zero or more items, themselves either abstract or concrete, which are its members or elements. The null (or empty) set has no members. A set is completely defined by the elements it contains; if two sets contain the same elements, they are identical. Unless it is modified by the word ordered, a set has no particular order.

State of affairs: A way that a world could be; an abstract entity that either obtains or fails to obtain. See also proposition.

Subjective: Dependent for its existence upon one or more minds. Thus, a headache is a subjective phenomenon. Contrast objective.

Subjunctive conditional: A proposition formed by joining two propositions (not necessarily distinct) in the schema “If it were the case that __, then it would be the case that __.” If the antecedent of a subjunctive conditional is false, it is sometimes referred to as a counterfactual conditional.