

Epistemology

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Philosophical Concept

Epistemology is one of the core areas of philosophy. It is concerned with the nature, sources and limits of knowledge. Epistemology has been primarily concerned with propositional knowledge, that is, knowledge that such-and-such is true, rather than other forms of knowledge, for example, knowledge how to such-and-such. There is a vast array of views about propositional knowledge, but one virtually universal presupposition is that knowledge is true belief, but not mere true belief (see Belief and knowledge). For example, lucky guesses or true beliefs resulting from wishful thinking are not knowledge. Thus, a central question in epistemology is: what must be added to true beliefs to convert them into knowledge?

1. The normative answers: foundationalism and coherentism

The historically dominant tradition in epistemology answers that question by claiming that it is the quality of the reasons for our beliefs that converts true beliefs into knowledge (see Epistemology, history of). When the reasons are sufficiently cogent, we have knowledge (see Rational beliefs). This is the normative tradition in epistemology (see Normative epistemology). An analogy with ethics is useful: just as an action is justified when ethical principles sanction its performance, a belief is justified when epistemic principles sanction accepting it (see Justification, epistemic; Epistemology and ethics). The second tradition in epistemology, the naturalistic tradition, does not focus on the quality of the reasons for beliefs but, rather, requires that the conditions in which beliefs are acquired typically produce true beliefs (see Internalism and externalism in epistemology; Naturalized epistemology).

Within the normative tradition, two views about the proper structure of reasons have been developed: foundationalism and coherentism (see Reasons for belief). By far, the most commonly held view is foundationalism. It holds that reasons rest on a foundational structure comprised of 'basic' beliefs (see Foundationalism). The foundational propositions, though justified, derive none of their justification from other propositions. (Coherentism, discussed below, denies that there are foundational propositions).

These basic beliefs can be of several types. Empiricists (such as Hume and Locke) hold that basic beliefs exhibit knowledge initially gained through the senses or introspection (see A posteriori; Empiricism; Introspection, epistemology of; Perception, epistemic issues in). Rationalists (such as Descartes, Leibniz and Spinoza) hold that at least some basic beliefs are the

result of rational intuition (see A priori; Rationalism). Since not all knowledge seems to be based on sense experience, introspection or rational intuition, some epistemologists claim that some knowledge is innate (see Innate knowledge; Knowledge, tacit; Kant, I.; Plato). Still others argue that some propositions are basic in virtue of conversational contextual features. That is, some propositions are taken for granted by the appropriate epistemic community (see Contextualism, epistemological).

Foundationalists hold that epistemic principles of inference are available which allow an epistemic agent to reason from the basic propositions to the non-basic (inferred) propositions. They suggest, for example, that if a set of basic propositions is explained by some hypothesis and additional confirming evidence for the hypothesis is discovered, then the hypothesis is justified (see Inference to the best explanation). A notorious problem with this suggestion is that it is always possible to form more than one hypothesis that appears equally well confirmed by the total available data, and consequently no one hypothesis seems favoured over all its rivals (see Induction, epistemic issues in; Goodman, N.). Some epistemologists have argued that this problem can be overcome by appealing to features of the rival hypotheses beyond their explanatory power. For example, the relative simplicity of one hypothesis might be thought to provide a basis for preferring it to its rivals (see Simplicity (in scientific theories); Theoretical (epistemic) virtues).

In contrast to foundationalism, coherentism claims that every belief derives some of its justification from other beliefs (see Knowledge and justification, coherence theory of; Probability theory and epistemology; Bosanquet, B.; Bradley, F.H.). All coherentists hold that, like the poles of a tepee, beliefs are mutually reinforcing. Some coherentists, however, assign a special justificatory role to those propositions that are more difficult to dislodge because they provide more support for the other propositions and are more supported by them. The set of these special propositions overlaps the set of basic propositions specified by foundationalism. There are some objections aimed specifically at foundationalism and others aimed specifically at coherentism. But there is one deep difficulty with both traditional normative accounts. This problem, known as the 'Gettier Problem' (after a famous three-page article by Edmund Gettier in 1963), can be stated succinctly as follows (see Gettier problems): suppose that a false belief can be justified (see Fallibilism), and suppose that its justificatory status can be transferred to another proposition through deduction or other principles of inference (see Deductive closure principle). Suppose further that the inferred proposition is true. If these suppositions can be true simultaneously – and that seems to be the case – the inferred proposition would be true, justified (by either foundationalist or coherentist criteria) and believed, but it clearly is not knowledge, since it was inferred from a false proposition. It is a felicitous coincidence that the truth was obtained.

One strategy for addressing the Gettier Problem remains firmly within the normative tradition. It employs the original normative intuition that it is the quality of the reasons that distinguishes knowledge from mere true belief. This is the defeasibility theory of knowledge. There are various defeasibility accounts but, generally, all of them hold that the felicitous coincidence can be avoided if the reasons which justify the belief are such that they cannot be defeated by further truths (see Knowledge, defeasibility theory of).

2. The naturalistic answers: causes of belief

There is a second general strategy for addressing the Gettier Problem that falls outside of the normative tradition and lies squarely within the naturalistic tradition (see Quine, W.V.). As the name suggests, the naturalistic tradition describes knowledge as a natural phenomenon occurring in a wide range of subjects. Adult humans may employ reasoning to arrive at some of their knowledge, but the naturalists are quick to point out that children and adult humans arrive at knowledge in ways that do not appear to involve any reasoning whatsoever. Roughly, when a true belief has the appropriate causal history, then the belief counts as knowledge (see Knowledge, causal theory of).

Suppose that I am informed by a reliable person that the temperature outside the building is warmer now than it was two hours ago. That certainly looks like a bit of knowledge gained and there could be good reasons provided for the belief. The normativists would appeal to those good reasons to account for the acquisition of knowledge. The naturalists, however, would argue that true belief resulting from testimony from a reliable source is sufficient for knowledge (see Social epistemology; Testimony).

Testimony is just one reliable way of gaining knowledge (see Reliabilism). There are other ways such as sense perception, memory and reasoning. Of course, sometimes these sources are faulty (see Memory, epistemology of). A central task of naturalized epistemology is to characterize conditions in which reliable information is obtained (see Information theory and epistemology). Thus, in some of its forms, naturalized epistemology can be seen as a branch of cognitive psychology, and the issues can be addressed by empirical investigation.

Now let us return to the Gettier Problem. Recall that it arose in response to the recognition that truth might be obtained through a felicitous coincidence. The naturalistic tradition ties together the belief and truth conditions of knowledge in a straightforward way by requiring that the means by which the true belief is produced or maintained should be reliable.

3. Scepticism

The contrast between normative and naturalized epistemology is apparent in the way in which each addresses one of the most crucial issues in epistemology, namely, scepticism (see Scepticism). Scepticism comes in many forms. In one form, the requirements for knowledge

become so stringent that knowledge becomes impossible, or virtually impossible, to obtain. For example, suppose that a belief is knowledge only if it is certain, and a belief is certain only if it is beyond all logically possible doubt. Knowledge would then become a very rare commodity (see Certainty; Doubt).

Other forms of scepticism only require good, but not logically unassailable, reasoning. We have alluded to scepticism about induction. That form of scepticism illustrates the general pattern of the sceptical problem: there appear to be intuitively clear cases of the type of knowledge questioned by the sceptic, but intuitively plausible general epistemic principles appealed to by the sceptic seem to preclude that very type of knowledge.

Another example will help to clarify the general pattern of the sceptical problem. Consider the possibility that my brain is not lodged in my skull but is located in a vat and hooked up to a very powerful computer that stimulates it to have exactly the experiences, memories and thoughts that I am now having. Call it the 'sceptical hypothesis'. That hypothetical situation is clearly incompatible with the way I think the world is. Now, it seems to be an acceptable normative epistemic principle that if I am justified in believing that the world is the way I believe it to be (with other people, tables, governments and so on), I should have some good reasons for denying the sceptical hypothesis. But, so the argument goes, I could not have such reasons; for if the sceptical hypothesis were true, everything would appear to be just as it now does. So, there appears to be a conflict between the intuition that we have such knowledge and the intuitively appealing epistemic principle. Thus, scepticism can be seen as one instance of an interesting array of epistemic paradoxes (see Paradoxes, epistemic).

Of course, epistemologists have developed various answers to scepticism. Within the normative tradition, there are several responses available. One of them is simply to deny any epistemic principle – even if it seems initially plausible – that precludes us from having what we ordinarily think is within our ken (see Commonsensism; Chisholm, R.M.; Moore, G.E.; Reid, T.). Another response is to examine the epistemic principles carefully in an attempt to show that, properly interpreted, they do not lead to scepticism. Of course, there is always the option of simply declaring that we do not have knowledge. Whatever choice is made, some initially plausible intuitions will be sacrificed.

Within the naturalistic tradition, there appears to be an easy way to handle the sceptical worries. Possessing knowledge is not determined by whether we have good enough reasons for our beliefs but, rather, whether the processes that produced the beliefs in question are sufficiently reliable. So, if I am a brain in a vat, I do not have knowledge; and if I am not a brain in a vat (and the world is generally the way I think it is), then I do have knowledge. Nevertheless, those within the normative tradition will argue that we are obliged to withhold full assent to propositions for which we have less than adequate reasons, regardless of the causal history of the belief.

4. Recent developments in epistemology

Some recent developments in epistemology question and/or expand on some aspects of the tradition. Virtue epistemology focuses on the characteristics of the knower rather than individual beliefs or collections of beliefs (see Virtue epistemology). Roughly, the claim is that when a true belief is the result of the exercise of intellectual virtue, it is, *ceteris paribus*, knowledge. Thus, the virtue epistemologist can incorporate certain features of both the normative and naturalist traditions. Virtues, as opposed to vices, are good, highly prized dispositional states. The intellectual virtues, in particular, are just those deep dispositions that produce mostly true beliefs. Such an approach reintroduces some neglected areas of epistemology, for example, the connection of knowledge to wisdom and understanding (see Wisdom).

In addition, there are emerging challenges to certain presuppositions of traditional epistemology. For example, some argue that there is no set of rules for belief acquisition that are appropriate for all peoples and all situations (see Cognitive pluralism; Epistemic relativism). Others have suggested that many of the proposed conditions of good reasoning, for example ‘objectivity’ or ‘neutrality’, are not invoked in the service of gaining truths, as traditional epistemology would hold, but rather they are employed to prolong entrenched power and (at least in some cases) distort the objects of knowledge (see Feminist epistemology).

In spite of these fundamental challenges and the suggestions inherent in some forms of naturalized epistemology that the only interesting questions are empirically answerable, it is clear that epistemology remains a vigorous area of inquiry at the heart of philosophy.

References and further reading

Chisholm, R. (1966/1977/1989) *Theory of Knowledge*, Englewood Cliffs, NJ: Prentice Hall, 1st, 2nd and 3rd edns.

(The successive editions contain a general introduction to many issues in epistemology and increasingly complex foundationalist accounts of knowledge, along with versions of the defeasibility account. The first edition is a good place to begin a study of contemporary epistemology.)

Gettier, E. (1963) ‘Is justified true belief knowledge?’, *Analysis* 23 (6):121–3.

(This article was responsible for focusing attention on the inadequacy of characterizing knowledge as true, justified belief. Many of the most interesting contemporary issues in epistemology can be traced directly or indirectly to this article.)

Lehrer, K. (1990) *Theory of Knowledge*, Boulder, CO: Westview Press.

(An accessible introduction to the fundamental questions in epistemology that defends a version of coherentism as supplemented by the defeasibility account.)

Lucey, K. (1996) *On Knowing and the Known*, Buffalo, NY: Prometheus Books.

(A collection of contemporary, fairly accessible articles on a wide variety of epistemic issues.)

Moser, P. and Vander Nat, A. (1987) *Human Knowledge: Classical and Contemporary Approaches*, New York and Oxford: Oxford University Press.

(An accessible collection of classical and contemporary essays on a wide variety of issues in epistemology.)

Sosa, E. (1994) *Knowledge and Justification*, vols 1 and 2, Brookfield, VT: Ashgate Publishing Company.

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