

Rationalism and Empiricism

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Rationalism and *empiricism* are two types of position that have been taken within *epistemology*—the branch of philosophy devoted to theorising about knowledge—and also within psychology (including linguistics) and the philosophy of psychology. In epistemology, rationalism and empiricism are types of position that have been taken about the sources of knowledge, in particular the sources for the justification or warrant required for a state to count as knowledge. In psychology and its philosophy, empiricism and rationalism concern the sources of psychological states and capacities that may include, but are not confined to, states of knowledge. We can therefore distinguish epistemological empiricism and epistemological rationalism from psychological empiricism and rationalism. To a first approximation, a position is a form of empiricism insofar as it holds that knowledge (or other psychological states and capacities (henceforth: etc.)) about some particular subject matter, *S*, derives from experience of that subject matter; and a position is a form of rationalism insofar as it holds that knowledge (or other psychological states or capacities) about some particular subject matter, *S*, derives from the use of reason or, more generally, from our rational nature(s). Traditionally, these positions, and disputes amongst their proponents, have concerned knowledge (etc.) about mind-independent subject matters, about how the world is independently of particular views that we might take about it.

Three major traditional points of dispute between empiricists and rationalists centre on the following three characteristic rationalist theses: (i) knowledge of a particular subject matter is underwritten by intuition (or rational insight) and deductive reasoning, rather than by experience of that subject matter; (ii) knowledge of a particular subject matter is *innate* (very roughly, determined by nature rather than by e.g. the particular course of experience); and (iii) the concepts or ideas that constitute our abilities to think about a particular subject matter are innate. Rationalists about knowledge (etc.) about a particular subject matter characteristically endorse at least one of (i)–(iii) with respect to that subject matter. Empiricists about knowledge of a particular subject matter characteristically reject (i)–(iii) with respect to that subject matter. Since epistemological forms of empiricism and rationalism concern the justification or warrant required for a state to count as knowledge, and not the sources of psychological states and capacities in general, it is possible to adopt psychological forms of each type of position without also adopting epistemological forms. For instance, one might hold that a particular belief is innate—and so be a psychological rationalist with respect to the belief—and also hold that in order to be justified or warranted the innate belief must be supplied with experiential support—and so be an epistemological empiricist with respect to the belief. Alternatively, one might hold that a particular belief is only acquired on the basis of experience, but that the justification or warrant for the belief derives from reason. In that case, one would be a psychological empiricist and an epistemological rationalist.

Three points are worth noting about the approximate account of the two types of position, all pertaining to its lack of specificity. First, articulating the precise content of a form of empiricism is dependent upon further specification of the notion of experience employed in the approximate account. For instance, one form of empiricism holds that knowledge (etc.) about a particular subject matter derives solely

from sense experience of that subject matter—e.g. visual, auditory, or tactile experience—and not from other forms of experience—e.g. introspective experience or religious revelation. (Further specification of that form of empiricism would be dependent upon further specification of the boundaries of specifically sensory experience.) Correlatively, articulating the precise content of a form of rationalism is dependent upon further specification of the extent of reason or our rational nature(s). Whether a particular form of rationalism is in dispute with a particular form of empiricism depends upon the details of such further specification. In particular, it depends upon whether the type(s) of experience to which appeal is made in characterising the particular form of empiricism includes, or excludes, the outputs of the type(s) of reason (or our rational nature(s)) to which appeal is made in characterising the particular form of rationalism.

Second, someone who holds that there are sources of knowledge in addition to experience and reason (or our rational nature(s)) might reject empiricism (/rationalism) about a subject matter without endorsing rationalism (empiricism) about that subject matter. For instance, they might hold that knowledge about some subject matters depends upon aspects of our non-rational nature(s) that are not sense-perceptual; or that it depends upon non-sensory experience. Again, whether a particular form of empiricism is in conflict with a particular form of rationalism depends upon the details of those positions. In particular, it depends upon whether the forms of experience and reason that characterise the positions exhaust the sources of knowledge (etc.) that are available.

Third, the approximate account of rationalism and empiricism is relative to particular subject matters. For instance, one might be an empiricist concerning knowledge of one's external environment—e.g. knowledge about what one can now see or hear—and a rationalist concerning mathematical knowledge. Hence, whether a particular form of empiricism conflicts with a particular form of rationalism depends upon whether those forms are directed upon the same, or different, subject matter(s). The positions conflict only if they are directed upon the same subject matter(s).

There are other dimensions along which particular forms of empiricism or rationalism might vary. For instance, they might differ in their accounts of the role of their preferred source of knowledge (etc.) in sustaining our acquisition of knowledge (etc.), in their account of the natures of the preferred sources, or in their accounts of the nature of the knowledge (etc.) acquired on the basis of the preferred sources. But we can already see that classifying a position as a form of empiricism or rationalism is, without further ado, quite unrevealing. And we can also see that there is no such thing as *the* dispute between empiricism and rationalism; rather, there are—or could be—various disputes each taking place between particular forms of each broad type of position. Finally, we can see that care is required in classifying individual thinkers as empiricists or rationalists, for careless adherence to such a broad scheme of classification can serve to disguise differences between particular members of one of the groups and similarities between members of the different groups. Descartes, Spinoza, and Leibniz are often aligned as paradigmatic rationalists—the so-called Continental Rationalists—in opposition to Locke, Berkeley, and Hume—the so-called British Empiricists—who are often treated as paradigmatic empiricists. However, it is important to look beyond that preliminary classification in coming to a proper appreciation of the works of those important thinkers.

Where a dispute arises between a particular form of empiricism and a particular form of rationalism, the dispute characteristically takes the following general form. The rationalist characteristically offers two types of consideration in

favour of their position. The first type of consideration—sometimes known as a *poverty of the stimulus* or *poverty of evidence* consideration—is that our knowledge (etc.) about the target subject matter could not have been acquired through (e.g. sense) experience, so that empiricism is ruled out. For instance, a rationalist about our knowledge of mathematics might argue that the necessity that we typically feel attaches to mathematical claims—the fact that we think that $2 + 2 = 4$ is not only true but could not fail to be true—cannot be explained by appeal to experience. For, they might argue, we only experience how things in fact are and not how they must be. The second type of consideration is an account of how the rationalist's favoured source—i.e. reason or our rational nature(s)—could have underwritten our acquisition of knowledge (etc.) of the subject matter. For instance, a rationalist about our knowledge of ethics might attempt to account for our knowledge about what we ought to do in a particular case by appeal to our possession of innate knowledge of general ethical principles from which our knowledge about particular cases is derived. (Alternatively, it might be argued that, although empiricism may supply a possible route to knowledge of the subject matter, rationalism is able to provide the best explanation of how we in fact acquire knowledge of it.)

The empiricist characteristically responds to each of the consideration offered by the rationalist. In response to the first type of consideration, the empiricist will attempt to argue that experiential resources suffice to explain the knowledge that we in fact possess. They will develop their response either by attempting to provide an account of how the knowledge (etc.) could have been acquired on the basis of experience, or by arguing that we do not in fact possess the knowledge that the rationalist claims we do. For instance, an empiricist about our knowledge of mathematics might attempt to argue that this knowledge is supported by induction from our experiences of groups of objects. And an empiricist about our putative knowledge of ethics might attempt that we do not really have such knowledge but only various feelings about particular courses of action. (Since such disputes typically concern knowledge (etc.) about a particular mind-independent subject matter, the empiricist might attempt to argue that we have the knowledge that the rationalist claims we do, but that it is knowledge about the operations of our own minds, or relations amongst our concepts or ideas, rather than about mind-independent reality. For instance, an empiricist about our knowledge of mathematics might attempt to argue that the subject matter of mathematics is dependent on the operations of our minds, or that it only serves to reflect features of our concepts or the meanings of our words.) In response to the second type of consideration, the empiricist will attack the rationalist account of how we come to have the knowledge (etc.) that they claim we possess. For instance, the empiricist might follow Locke in attempting to argue that the claim that a piece of knowledge (etc.) is innate is either false or consistent with empiricism. If the rationalist claims that a piece of knowledge (etc.) is innate only if it is possessed by everyone at birth, then the empiricist will point to the absence of that piece of knowledge (etc.) in the very young or the dysfunctional. Alternatively, if the rationalist opts for looser requirements on innateness by counting a piece of knowledge (etc.) as innate if we are born with a capacity to acquire it, then the empiricist will also be willing to accept that all knowledge is innate in that very thin sense. As Locke puts it,

If the capacity of knowing, be the natural impression contended for, all the truths a man ever comes to know, will, by this account, be every one of them, innate; and this great point will amount to no more, but only an improper way of

speaking; which whilst it pretends to assert the contrary, says nothing different from those, who deny innate principles. For nobody, I think, ever denied, that the mind was capable of knowing several truths. (Locke, 1690: Book I, Chapter II, Section 5, p.61).

(Note that a successful response of the second sort would not suffice for an empiricist friendly disjunction according to which either empiricist resources can explain our knowledge (etc.) or we fail to possess the knowledge (etc.) that the rationalist claims we do. For the second response would leave open that there might be sources of knowledge (etc.) other than those favoured by empiricists and rationalists.)

The most prominent contemporary defender of a form of rationalism is Noam Chomsky. Chomsky—together with numerous co-workers in linguistics, psychology, and philosophy—has used poverty of stimulus considerations in support of the thesis that human knowledge of natural language has a significant innate component. And Chomsky—again together with co-workers in a variety of disciplines—has developed an increasingly detailed account of the development of our knowledge of particular natural languages—e.g. particular dialects of English or particular Bantu languages—that makes appeal to innate structures and capacities. The claim that a significant component of our knowledge of language is innate is supported to the extent that it forms part of the best explanation for the course and outcome of normal human acquisition of language. Hence, one should not expect a decisive argument in favour of the claim, or a critical piece of evidence that is simply incompatible with alternative empiricist accounts. Proper assessment of the claim requires careful consideration of the details of the accounts that support it and the evidence that has been marshalled in favour of those accounts. However, the following general facts provide some initial support for the rationalist position. First, normal human development invariably results in acquisition of the local language regardless of the child's general intelligence and variations in the particular course of the child's experience. Second, the child's acquisition of language is very fast and follows a characteristic path, again despite variations in the particularities of their experience. Third, the knowledge that the child acquires outstrips the theories linguists have been able to construct on the basis of many years of study. Fourth, and perhaps most striking, children are able to acquire knowledge of language that outstrips the knowledge possessed by local adult speakers, indicating that they do not simply acquire their knowledge of language on the basis of experience of the local language. (For a readable introduction to some considerations that support Chomsky's position, see Pinker (1994).) Of course, Chomsky accepts that experience plays some role in the acquisition of knowledge of language, since it would otherwise be a mystery that children typically acquire knowledge of language that enables them to communicate with those whose speech they experienced during acquisition. But he holds that the role of experience is primarily to select from amongst the child's innate repertoire the bits that will be operative in the competence that they come to employ.

Chomsky's form of rationalism has been subjected to both sides of the standard empiricist critique. First, versions of Locke's objection have been pressed, according to which Chomsky's appeal to innate psychological states or capacities either fails to distinguish his position from empiricism or is easily falsified. Because Chomsky aims to provide a detailed, predictive account of the course of acquisition of particular languages, his position appears to avoid the second horn of Locke's dilemma by going beyond the bland claim that we are predisposed to acquire language. And because he provides an account according to which our initial state of

knowledge is shaped by experience in the course of normal development, his account avoids falsification by the fact that small children and subjects of abnormal development fail lack ordinary knowledge of language. However, important questions remain concerning the precise content of the claim that a basic component of human linguistic capacity or state is innate. And the fact that many theorists who align themselves with either empiricism or rationalism—including Chomsky—agree that both innate and experiential factors play a role in shaping knowledge of language tends to undermine the utility of their classification as empiricists or rationalists. Second, empiricists have attempted to provide accounts of language acquisition that make more limited appeals to innate psychological states and capacities. Some empiricist approaches agree with the rationalist assessment of what the child acquires, and attempt to provide account of how the child might acquire it more or less solely on the basis of experience. Other empiricist approaches involve an attempt to show that the child acquires less than the rationalist has claimed, so that the task of accounting for their acquisition is made easier for the empiricist. Thus far, no empiricist account has been provided that has anything approaching the depth, detail, and coverage of rationalist accounts.

Chomsky's form of rationalism appears to differ in certain respects from some more traditional forms of rationalism. That should not be surprising now that we have recognised the variety of possible rationalist positions. But some of the apparent differences are especially striking and have been taken by some thinkers to undermine Chomsky's classification as a rationalist, or the bearing of his work on the standing of more traditional forms of rationalism. First, although Chomsky talks of *knowledge* of language, it is not clear that he thinks of this knowledge as the sort of propositional knowledge—knowledge that such-and-such—that is of concern to epistemologists. Some philosophers have thought that the knowledge is really knowledge-how—i.e. practical knowledge—like knowledge how to ride a bicycle. Although Chomsky rejects that interpretation, it remains an open question whether he is right to do so. And Chomsky admits other reasons for thinking that the sort of knowledge in question differs from the sort that concerns epistemologists. For instance, he does not think that knowledge of language is justified or warranted and he does not think that we are typically conscious of possessing it—i.e., he thinks of it as *tacit* knowledge. Moreover, some of these reasons might also be grounds for thinking that knowledge of language is not really a psychological state, so undermining Chomsky's classification even as a psychological rationalist. Second, Chomsky does not think that knowledge of language is knowledge about a mind-independent subject matter. Rather, on Chomsky's view, facts about an individual's language are constituted by facts about the individual's psychology, in particular facts about their knowledge of the language. (If he were right about this, then it would form another difference between knowledge of language and ordinary propositional knowledge.) Third, although Chomsky thinks that knowledge of language is determined as a part of human nature, he does not appear to think that it is determined as a part of our *rational* nature(s).

Further Reading.

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