

Introducing rationalism, empiricism and innatism¹

Knowledge is central to life. Without any knowledge at all, we would die, very quickly. At the most basic level, as physical creatures, we want to know where to find food and shelter. We develop technology to help meet these needs and others, so we need to understand how things happen in the world and how we can affect it. As social creatures, we want to live with other people and make arrangements with them. We want to know what people expect, how they feel, or just where to meet on Saturday night. We need to communicate, so we need to know a language. As curious creatures, we simply want to know - how did I come to exist, what am I, how did the universe begin, what is right and wrong, does God exist? In these and countless other ways, knowledge matters to us.

But what kinds of knowledge are there, and how do we gain knowledge? If, as Linda Zagzebski suggests, knowledge involves being in ‘cognitive contact’ with reality, what means of being in contact with reality do we have? One obvious and immediate answer to the question ‘how do we gain knowledge?’ is ‘perception’ or ‘sense experience’ - awareness of physical objects through our senses. But does all our knowledge, directly or indirectly, come from perception?

An alternative is that reason provides us with an independent source of knowledge. This question goes to the very heart of epistemology in reflecting on how human beings are ‘hooked up’ to the world. It makes a central contribution to our understanding of the nature and possibilities of human thought. The debate over the origin (and nature) of our knowledge coincided with the scientific revolution in Europe. The debate led to the first proposals about how modern science works and the type of knowledge it can give us. And because philosophy is form of thinking that relies (more) on reasoning than on an empirical investigation of the world, this debate also has implications for the nature and scope of philosophy itself.

We can identify three positions on the origin of our knowledge. Very roughly, empiricism claims that all our knowledge comes from sense experience, rationalism claims that we can gain further knowledge by pure reasoning, while innatism claims that our minds are innately predisposed to know certain truths. To help us think about the debate between these views, we need to make a number of distinctions, the first between two types of knowledge, and the second and third between ways in which propositions can be true. This handout presents these distinctions and their relations to the three views about the origin of knowledge.

¹ This handout is based on material from Lacewing, M. (2017) *Philosophy for AS and A Level: Epistemology and Moral Philosophy* (London: Routledge), Ch. 2, pp. 25, 114-9

A PRIORI/A POSTERIORI KNOWLEDGE

We may draw a distinction between two types of knowledge, based on how we know whether a proposition is true:

A priori: We have a priori knowledge of a proposition if we do not require sense experience to know it to be true. An example is 'Bachelors are unmarried'. If you understand what the proposition means, then you can see straightaway that it must be true. You don't need to find bachelors and ask them if they are married or not. Another example is ' $537 + 654 = 1191$ '. You can figure out whether this is true just by thinking about it.

A posteriori: Propositions that can only be established through sense experience are known a posteriori. An example is 'There are more than 6 billion people on the Earth'.

The a priori/a posteriori distinction rests on how we check or establish knowledge of a proposition. How we come to understand the proposition is irrelevant. To learn what a proposition means, to acquire the concepts or words involved, we may well always need sense experience. For instance, to understand 'Bachelors are unmarried', we will first need to learn English, and that requires sense experience. But how we learn to understand a proposition is a different issue from how, once we understand it, we check if it is true.

(Philosophers sometimes also talk about a priori and a posteriori concepts. An a posteriori concept is one that is derived from experience. An a priori concept is one that cannot be derived from experience.)

ANALYTIC/SYNTHETIC PROPOSITIONS

The contrast between 'analytic' and 'synthetic' is a contrast between types of proposition:

Analytic: A proposition is analytic if it is true or false just in virtue of the meanings of the words. Many analytic truths, such as 'squares have four sides', are obvious, but some are not, e.g. 'In five days' time, it will have been a week since the day which was tomorrow three days ago' (think about it!).

Synthetic: A proposition is synthetic if it is not analytic, i.e. it is true or false not just in virtue of the meanings of the words, but in virtue of the way the world is, e.g. 'ripe tomatoes are red'.

You may have already noticed a similarity between the examples for a priori knowledge and analytic propositions. 'Bachelors are unmarried' - an example of a priori knowledge - is also an analytic proposition. 'Squares have four sides' - an example of an analytic proposition - is also an example of a priori knowledge. So is all a priori knowledge just knowledge of analytic propositions? It is a question we return to below. But first, the third distinction.

NECESSARY/CONTINGENT TRUTH

The distinction between 'necessary' and 'contingent' draws a different contrast in how propositions can be true:

Contingent: A proposition is contingently true (or false) if it is possible that it could be true or false. Of course, it will be either true or false, but the world could have been different. It is true that you are reading this book; but you could have been doing something else - it could have been false. So it is contingently true. It is contingently true that there are more types of insect than there are of any other animal. This wasn't always true, and one day it might be false again.

Necessary: A proposition is necessarily true if it must be true (or necessarily false if it must be false). Mathematical propositions are necessarily true (or false): $2 + 2$ must equal 4; it is not possible (logically or perhaps mathematically possible) for $2 + 2$ to equal any other number. Likewise, analytic truths are necessary: if a proposition is true by definition, then it must be true. If a square is, by definition, a closed two-dimensional figure with four sides, it is impossible for there to be a square with three sides. It simply wouldn't be a square.

(Of course, it is possible that the figure '2' could have been used to mean the number 3 or the word 'square' used to mean triangle. But then ' $2 + 2$ ' wouldn't mean $2 + 2$; it would mean $3 + 3$. To test whether a proposition is true or false, in all cases, you have to keep the meanings of the words the same. If '2' means 2, and '4' means 4, then $2 + 2$ must equal 4.)

DEFINING RATIONALISM, EMPIRICISM AND INNATISM

We can now return to our question of whether reason provides us with knowledge. A posteriori knowledge is knowledge from sense experience, so if reason is a source of knowledge at all, then it provides us with a priori knowledge (of either analytic or synthetic propositions). But how would 'reason' provide such knowledge? In fact, philosophers have proposed two distinct theories. The first, innatism, is that such knowledge is 'innate', built into that part of the mind with which we think about and understand the world. The second theory is that we can gain knowledge using rational insight and reasoning.

Historically, philosophers who defended the claim that reason is a source of knowledge, such as Plato, Descartes, and Leibniz, connected these two theories and defended both of them, while philosophers who rejected the claim, such as Locke and Hume, rejected both theories. The first group of philosophers were called 'rationalists', because they defended reason as a source of knowledge; the second group were called 'empiricists', because they argued that all our knowledge derives from sense experience. The two groups also disagreed on how we acquire concepts, and so produced 'rationalist' and 'empiricist' theories of this as well. To mark their historical nature, let's call these two families of theories 'classical rationalism' and 'classical empiricism'.

We should now note that the claim that we have innate knowledge can be separated from the claim that we have knowledge through rational intuition and reasoning, and one could be true without the other. It is more useful, therefore, to split the classical debate into two separate debates. In particular, let us split 'classical rationalism' into the following two claims, and re-use 'rationalism' for just one of these claims:

Innatism: Innatism (about knowledge) claims that we have some innate knowledge.

Rationalism: Rationalism claims that we have some a priori knowledge from rational insight and reasoning.

For now, we can keep 'empiricism' to mean:

Empiricism: Empiricism (about knowledge) claims that there is no a priori knowledge which is either innate or gained from rational insight and reasoning.

We should clarify immediately that we are excluding knowledge of our own minds from the debate. We can each know such truths as 'I feel sad' or 'I am thinking about unicorns'. How? Not obviously through sense experience nor reason (and certainly not innately). We don't need to worry about this. The argument is about knowledge of things other than our own minds.

We can develop our understanding of the debates between classical rationalism and empiricism using the distinctions we drew earlier. We noticed in passing that the distinction between a priori/a posteriori and analytic/synthetic might line up. This would mean that our knowledge of true analytic propositions is always a priori; and our knowledge of true synthetic propositions is always a posteriori. Is this right?

1. Everyone agrees that analytic propositions are known a priori. However, what is the source of this knowledge? Is such knowledge innate? Is it gained by reasoning? Or is it, as empiricists argue, something else again, e.g. a form of conceptual knowledge?
2. Are all synthetic propositions known a posteriori? Empiricists argue that they are. But could we know some synthetic propositions a priori, either innately or through reasoning?

How do these questions connect to the third distinction above, between necessary and contingent truth? Historically, philosophers agreed that knowledge of propositions that are necessarily true is a priori knowledge while knowledge of propositions that are contingently true is a posteriori. Why? Because a posteriori knowledge is knowledge of how the world is gained through our senses, and surely the world as we experience it could always have been a different way - so all propositions about the world could have been true or false. But it is hard to see how necessary truths could be established a posteriori. Take the claim that ' $2 + 2 = 4$ ' or 'Squares have four sides'. In his *New Essays on Human Understanding*, Leibniz points out that our sense experience only provides us with information about particular instances - that these two apples and these two apples make four

apples; that this square has four sides; and so on. But 'however many instances confirm a general truth, they aren't enough to establish its universal necessity'. Our experience tells us how things are, but not how things must be. If we reject this, and argue that ' $2 + 2 = 4$ ' is just a generalisation of our experience so far, then we are saying that it is possible, one day, that $2 + 2$ will equal some other number. But this is inconceivable.

All necessary truths tell us how things must be. Because experience doesn't tell us how things must be, it seems that all knowledge of necessary truths must be a priori. If our knowledge of necessary truths is innate or gained through rational insight and reasoning, then this will show that empiricism is false.

However, empiricists can argue that necessary truths are analytic propositions, and that knowledge of analytic propositions isn't innate or gained through rational insight, but a form of conceptual knowledge. To know an analytic truth, one simply needs to understand the concepts involved. As long as the concepts are learned from experience, knowledge of analytic truths is no threat to the empiricist claim that all knowledge ultimately derives from experience.

The real debate between empiricism and rationalism, then, concerns whether we can have a priori of any synthetic propositions that don't concern our own mental states. We can use this to sharpen our definitions of rationalism and empiricism:

Rationalism (2.0): Rationalism claims that we have some a priori knowledge of synthetic propositions about the world external to our minds.

Empiricism (2.0): Empiricism (about knowledge) claims that there is no a priori knowledge of synthetic propositions about the world external to our minds (whether this is innate or gained from rational intuition and deduction).