

Is there innate knowledge?¹

(This handout follows the handout ‘Introducing rationalism, empiricism and innatism’. You should read that handout first.)

The claim that there is at least some innate knowledge is sometimes called ‘innatism’. Exactly what ‘innate’ means in this context is disputed. But the claim is that some knowledge is part of the mind, already ‘in’ the mind from birth, rather than gained from experience. If there is any innate knowledge, it cannot be a posteriori, but must be a priori. If we want to say that ‘reason’ is the source of this knowledge, then we can say that the knowledge is built into the ‘faculty’ of reason, that part of the mind with which we think about and understand the world.

The debate over innatism is whether there is any innate *propositional* knowledge. Everyone can agree that there is innate ability knowledge. Of course babies are born knowing how to breath, how to see (and apparently, how to hold their breath under water!). We can also agree that they have certain psychological abilities, such as memory and the disposition to learn a language. But is there any innate propositional knowledge?

In this handout, we look at three arguments for innatism - two historical and one contemporary - and consider how an empiricist, who denies innatism, might reply.

PLATO’S SLAVE BOY ARGUMENT

Plato’s dialogue *Meno* is mostly about virtue. But it includes an extended example and discussion of innate knowledge. Our interest begins with Socrates saying ‘You argue that man cannot enquire either about that which he knows, or about that which he does not know; for if he knows, he has no need to enquire; and if not, he cannot; for he does not know the very subject about which he is to enquire’. This is ‘Meno’s Paradox’. Put another way, it says that it is impossible to learn anything because, for anything you might learn, either you already know about it or you don’t know about it. If you already know about it, learning is unnecessary; if you don’t know about it, you won’t know how to go about learning it.

Plato’s solution to this puzzle is to say that learning is a form of remembering. He demonstrates this by Socrates asking Meno’s slave boy a series of questions about a theorem in geometry.

Socrates draws a square in the ground that is 2 feet × 2 feet. Its total area is therefore 4 square feet. How long are the sides of a square with a total area of 8

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. 120-5

square feet? The slave boy has not been taught geometry, and yet is able to work out the right answer in response to Socrates only asking questions. The boy first guesses that the sides will each be 4 feet long, but when asked what 4 feet \times 4 feet is, he realises that the area of this square is 16 square feet, not 8 square feet. The answer must be between 2 feet and 4 feet - he guesses 3 feet. But again, when asked what 3 feet \times 3 feet is, he realises this square would be 9 square feet, not 8 square feet.

Socrates then draws three more squares of 2 feet \times 2 feet, arranging them with touching sides to make one big square of 4 feet \times 4 feet. He then draws a diagonal line across each small square, dividing them into triangles. The four diagonals are arranged to form a (square) diamond in the middle of the big square. Through questioning, he gets the slave boy to agree that each triangle is half of 4 square feet, i.e. 2 square feet. There are four such triangles making up the diamond, which is therefore 8 square feet. The sides of the diamond are the diagonals of the original 2 foot \times 2 foot squares. So a square with an area of 8 square feet has sides the length of the diagonal of a square that is 4 square feet.

The boy wasn't taught any geometry, yet he correctly answers each stage of the proof (or realises his mistake). How? He didn't gain the knowledge from experience, so he must have recovered the answers from within his mind, i.e. the knowledge must be innate. The argument for innate knowledge is that we have knowledge that we can't have gained from experience. Plato's example is supposed to show that all we need to recover our innate knowledge is the right 'prompts' from experience (in this case, Socrates' questions).

(Socrates goes on to argue that the mind must exist from before birth, to have gained this knowledge in a previous form of existence. Socrates' questions triggered the knowledge he had from before birth, but had forgotten - just as memories can be triggered by some event or question. However, we don't have to draw this conclusion about the pre-existence of the mind. Other explanations of innate knowledge are possible, as we see below.)

LEIBNIZ ON KNOWLEDGE OF NECESSARY TRUTHS

In his *New Essays on Human Understanding*, Leibniz argues that knowledge of necessary truths is not derived from experience. Experience only teaches us how things are on any occasion; it cannot teach us how things must be. 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, i.e. they are contingently true. 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'. 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.

In sum, 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.

Leibniz then argues that we should regard such a priori knowledge of necessary truths as innate. We discover their truth in a priori reasoning by 'attending carefully and methodically to what is already in our minds'. This is what Plato's example of the slave boy shows. (In fact, in a broad sense of 'innate', all the knowledge we gain by a priori reasoning from 'basic' innate knowledge can also be called innate.) An example of such innate, a priori knowledge is 'It is impossible for the same thing to be and not to be'. We can know the general truth of this claim by reflecting on it; but sense experience can't teach us this, for the reasons already give above.

Importantly, saying that this knowledge is innate doesn't mean that we can discover our innate knowledge without any sense experience. We need sense experience in order to form abstract thoughts; we rely on words, letters, sounds, which we learn from experience. That makes sense experience necessary but not sufficient for our knowledge of necessary truths. If sense experience isn't sufficient, then the knowledge must already be part of our minds.

EXPERIENCE TRIGGERS INNATE KNOWLEDGE

Philosophers who defend innate knowledge argue for it as knowledge *which cannot be gained from experience*, e.g. geometry (Plato) and other necessary truths (Leibniz). Since we are not consciously aware of this knowledge from birth, there is some point at which we first come to be aware of it. And so innatists argue that experience *enables our awareness* of the knowledge.

How is experience 'enabling' knowledge different from simple *learning* from experience? We have already said that, with innate knowledge, experience is necessary but not sufficient. But can we say more than this? One modern version of the theory talks of experience 'triggering' knowledge.

The idea of triggering is often used in the study of animal behaviour. For example, in some species of bird, a baby bird need only hear *a little bit* of the bird song of its species before being able to sing the *whole* song itself. There has been far too little experience of hearing the song sung by other birds for the baby bird to learn from experience; rather the experience has triggered its innately given song.

In *Human Knowledge and Human Nature*, Peter Carruthers notes that there are many developments in our cognitive *capacities* that are genetically determined. For example, infants cannot see further than approximately 12 inches when first born. Within 8 weeks, they can see much further. This development of the eye is genetically encoded. The same could be true for certain types of *knowledge*. At a certain genetically determined point in development, children begin to think in a particular way for the first time, but that way of thinking has not been learned from experience. For example, around 3-4 months, babies *quickly* shift from thinking of objects as existing only while they experience them to thinking of

objects as something that can exist outside their experience. So, for example, they begin looking for things they have dropped. Or again, babies *very quickly* relate to other people as having minds - beliefs, desires, intentions, emotions, etc. In both cases, they couldn't have learned this knowledge (that objects exist independent of experience, that other people have minds) from experience. So the knowledge is innate.

Again, this is not to say that experience has no role. A child must be exposed to the relevant stimuli - interactions with objects and people - for the knowledge to emerge. What shows that the knowledge is innate is that it cannot be learned from experience.

The claim is not simply that we have the *capacity* to gain this knowledge. Rather, the claim is that our capacities are 'preshaped' or 'predisposed' towards thinking truly about the world in some ways rather than others. So experience merely triggers our knowledge, rather than being the source of the knowledge.

ALTERNATIVE EMPIRICIST ACCOUNTS

Many recent philosophers, including Carruthers, have argued that innate knowledge is compatible with spirit of empiricism and the claim that *ultimately* all our knowledge derives from sense experience. We can provide an empirical explanation of innate knowledge in terms of evolution. Knowledge is innate in the sense of it being encoded genetically that we will develop and use the knowledge at a certain point in cognitive development under certain conditions. Evolution has prepared our minds to form an understanding of the world in terms of mind-independent physical objects and the existence of other minds with beliefs and desires. We can argue that these beliefs constitute knowledge because they are reliable.

It is worth noting, though, that claims about physical objects and other minds are contingently true. What can an empiricist say about the kinds of necessary truths Leibniz discusses, such as ' $2 + 2 = 4$ ' and 'It is impossible for the same thing to be and not to be'? How could evolution give us knowledge of necessary truths if Leibniz is right that necessary truths cannot be established through experience?

Here an empiricist can provide an alternative account of how we know them. We don't know necessary truths innately; instead, necessary truths are *analytic*. We acquire the concepts involved from experience, and then in understanding the concept, we come to know the necessary (analytic) truths. The knowledge is conceptual, not innate.

This alternative explanation will only be successful on two conditions. First, the empiricist has to show that the relevant concepts are acquired from experience. If the concepts are innate, then the knowledge will count as innate as well. Second, the empiricist must show that necessary truths are, in fact, analytic.