Knowledge innatism

Knowledge innatism argues that there is at least some innate knowledge. 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.

In this handout, we briefly consider Locke’s objection to innate knowledge, and a general response. For an in-depth discussion of Locke, and the response from Leibniz, see the handout on ‘Locke and Leibniz on innate knowledge’.

LOCKE’S ARGUMENT AGAINST INNATE KNOWLEDGE
In brief, Locke’s argument against innate knowledge is this:

1. If there is innate knowledge, it is universal.
2. For an idea to be part of the mind, Locke says, the mind (the person) must know or be conscious of it: ‘it seems to me nearly a contradiction to say that there are truths imprinted on the soul that it doesn’t perceive or understand. No proposition can be said to be in the mind which it has never known or been conscious of.’
3. Therefore, innate knowledge is knowledge that every human being is or has been conscious of.
4. Children and ‘idiots’ do not know theorems in geometry or ‘It is impossible for the same thing to be and not to be’. (They do not know these claims, because they do not understand them.) (By ‘idiots’, Locke means people with severe learning disabilities.)
5. Therefore, these claims are not innate.
6. There are no claims that are universally accepted, including by children and ‘idiots’.
7. Therefore, there is no innate knowledge.

EXPERIENCE TRIGGERS INNATE KNOWLEDGE
Locke’s reasons for rejecting innate concepts rest on his claim that innate knowledge is knowledge that everyone is conscious of from birth. But no major philosopher has ever defended innate knowledge using this definition. Instead, they reject Locke’s claim that it is impossible for knowledge to exist ‘in the mind’ unless we are or have been conscious of it. Innate knowledge is knowledge which cannot be gained from experience. 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 triggers our awareness of the knowledge, or some relevant concept that it depends upon.
How is experience ‘triggering’ knowledge different from simple learning from experience? 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.

Peter Carruthers notes that there are many developments in our cognitive capacities that are genetically determined (Human Knowledge and Human Nature, p. 51). 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 derived from experience. For example, around 3-4 months, babies quickly shift from thinking of objects as only existing 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. In both cases, they couldn’t have learned this from experience. So the knowledge is innate.

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. (Genes always cause their effects through interaction with the environment. For example, there are genes for height, but height also depends on someone’s diet.) What shows that the knowledge is innate is that it cannot be derived from experience.

The argument is not that we have the capacity to gain this knowledge. Locke and Hume allowed that general capacities for knowledge are innate. Rather, the claim is that our capacities aren’t ‘general’ - they are ‘pre-shaped’ towards thinking about the world in some ways rather than others. So experience merely triggers our acquiring this knowledge, rather than being the source of the knowledge. Plato’s discussion in Meno provides an example.

PLATO, MENO (81E FF.)
Plato’s dialogue Meno is mostly about virtue. But it includes an extended example and discussion of innate knowledge. The anthology source doesn’t have section or page numbers, but 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.’ Plato’s solution to this puzzle is to say that learning is a form of remembering. He demonstrates this by asking Meno’s slave boy a series of questions about a theorem in geometry.

Socrates draws a square in the ground that is 2 ft x 2 ft. Its total area is therefore 4 sq ft. How long are the sides of a square with a total area of 8 sq ft? 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 ft long, but when asked what 4 ft x 4 ft is, he realises that the area of this square is 16 sq ft, not 8 sq ft. The answer must be between 2 ft and 4 ft - he guesses 3 ft. But again, when asked what 3 ft x 3 ft is, he realises this square would be 9 sq ft, not 8 sq ft.

Socrates then draws three more squares of 2 ft x 2 ft, arranging them with touching sides to make one big square of 4 ft x 4 ft. 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 sq ft, i.e. 2 sq ft. There are four such triangles making up the diamond, which is therefore 8 sq ft. The sides of the diamond are the diagonals of the original 2 ft x 2 ft squares. So a square with an area of 8 sq ft has sides the length of the diagonal of a square that is 4 sq ft.

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. The argument for innate knowledge is that we have knowledge that we can’t have gained from experience.

(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.)

ARGUMENTS AGAINST KNOWLEDGE INNATISM
Alternative explanations
If we are to deny that there is any innate knowledge, then for any proposed claim, we need to argue either that we do not have the knowledge claimed or that we obtain it some other way. But we do know the necessary truths of logic and mathematics, and the argument that we cannot establish them on the basis of experience is convincing. So how do we know things like ‘2 + 2 = 4’ and ‘It is
impossible for the same thing to be and not to be’ if we do not know them innately?

The answer, says the empiricist, is that necessary truths are a priori but analytic. We acquire the concepts involved from experience, and then in understanding the concept, we come to know the necessary truths. So we don’t need to say that the mind is structured with a predisposition to form these concepts and know these truths.

This empiricist explanation will only be successful on two conditions. First, we have to show that we do, in fact, acquire the relevant concepts from experience. Second, we have to show that necessary truths are, in fact, analytic. Is mathematical knowledge, for instance, reached by analysing the concepts involved? If this is true, how are mathematical ‘discoveries’ possible? How can we ‘discover’ something that is true in virtue of the meaning of the concepts? Empiricists reply that analytic knowledge doesn’t need to be obvious; mathematical truths are very complex, so it takes work to establish that they are true.

In the twentieth-century, empiricists such as Bertrand Russell argued that although mathematical truths were not analytic, they were nevertheless ‘logical’ truths. His argument depended on technical developments in logic and in mathematics. Philosophers still disagree about the success of Russell’s attempt – and attempts by other philosophers since – to reduce mathematics to logical truths. While some attempts are promising, no reduction has been completed.

**Geometry**

The truths of geometry don’t seem to be analytically true. The fact that it takes at least three straight lines to enclose a space in two-dimensions seems to be a truth about space, rather than the concept of space. Yet it has mathematical certainty, and can be proved by mathematical geometry. How could such certainty come from sensory experience alone?

In fact, there is more than one geometry of space. It is in classical, or Euclidean, geometry that it takes three straight lines to enclose a two-dimensional space. But mathematicians have worked out perfectly good, consistent non-Euclidean geometries in which this and other ‘truths’ are not true (if you curve the two-dimensional plane, e.g. the surface of the Earth, you can enclose a space with two straight lines – longitude). So, empiricists argue, geometry applied to the real world has two elements: conceptual definitions, which are analytic truths; and then an a posteriori claim about which type of geometry applies to space. So there are geometrical truths about the nature of space, but they are not necessary – space could have been otherwise, e.g. non-Euclidean. In fact, in some cases in advanced physics, Euclidean geometry does not describe space accurately.

**Morality**

The truths of logic and mathematics may be analytic. But this is less easy to believe about moral truths. Locke, however, argues that they are, or at least can be deduced from analytic truths, and so moral truths can be shown to be as ‘incontestable’ as mathematical truths (*An Essay Concerning Human*)
Hume, by contrast, argues that there is no moral knowledge because there is no moral truth. Instead, moral claims are expressions of our feelings, rather than propositions that can be true or false.

**Innate knowledge and the ‘non-natural’**

A second objection we can raise to innate knowledge is this: if it does not derive from experience, then where does it come from? How is it that it is already part of the mind?

Historically, defenders of innate knowledge appealed to explanations that require us to accept something beyond the ‘natural’ world, the world that science discovers and describes. Plato appeals to the existence of the mind before birth. Leibniz develops a complex metaphysical theory that includes the existence of God and makes the mind independent of the body - indeed, he rejects our commonsense understanding of physical objects entirely. Descartes argues that innate knowledge derives from concepts implanted in our minds by God. And so on.

It is important to note that Plato, Leibniz and Descartes are not assuming their theories of the mind and the existence of God. They supply arguments for thinking that there is innate knowledge, and then argue that the best explanation innate knowledge requires their theories of the mind or God. In other words, their commitment to ‘non-natural’ things is an implication of their arguments, not an assumption.

The objection, then, is that innate knowledge requires a more complicated and less plausible account of what exists. Therefore, if we can explain our knowledge without appealing to innate knowledge, we should reject the hypothesis of innate knowledge.

However, recent philosophers, such as Carruthers, have argued that innate knowledge does not require these non-natural explanations. We can provide an empirical explanation in terms of evolution. Knowledge is innate in the sense of it being encoded genetically that we will develop the relevant concepts 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, and we can argue that these beliefs constitute knowledge because they are reliable.

This reply, however, is much more plausible for claims about physical objects and other minds than it is for the kinds of necessary truths Leibniz and Locke discuss. How could evolution give us knowledge of necessary truths if necessary truths cannot be established through experience? So if necessary truths are known innately, perhaps some non-natural explanation will be needed.