

In Book II of the *Essay* Locke turned to his proper project: the anatomy of our knowing powers. There are three parts to this project. First, Locke tried to determine what sort of information is available to our knowing powers to work with, or, as he preferred to put it, what sorts of ideas are given to the mind. Then he tried to determine what sorts of things we can and cannot come to know on the basis of this information. Finally, he inquired into what things we can accept on faith or trust, even though they may be beyond our knowledge. The first of these tasks, the survey of the information available to the understanding to work with, is undertaken over Book II of the *Essay*. Over the course of this book, Locke identified the main sources from which we originally receive information or ideas, and what sorts of ideas we receive from these sources. He then identified various operations that the mind is capable of performing on originally received ideas and identified various derivative ideas that result from these operations. Over *Essay* II.i-viii he took on just the first of these tasks: identifying the main sources from which we originally receive ideas and what sorts of ideas we receive from these sources.

#### QUESTIONS ON THE READING

1. What are the two sources of ideas?
2. What exactly is conveyed to our minds by our senses?
3. What evidence did Locke offer for supposing that all ideas originate from either sensation or reflection?
4. Do we only ever experience one simple idea at a time?
5. What makes simple ideas simple?
6. Is it possible for us to spontaneously create ideas on our own?
7. Do we have ideas of privations?
8. What did Locke consider to be the likely causes of our ideas of white and black?
9. Did Locke think it is even likely that any of our ideas could be caused by privations?
10. What is solidity and how does it differ from hardness?
11. Why does the mind consider solidity to be a feature even of bodies that are too small to see?
12. What does it mean for a body to fill a space?
13. How does the extension of body differ from that of space?

#### NOTES ON THE READING

For Locke, there are three sources of ideas: sensation, reflection, and imagination. However, imagination is not an original source of ideas. It generates new ideas only by repeating, compounding, dividing, comparing, abstracting, and naming previously obtained ideas. So there are just two ultimate sources of ideas, sensation and reflection.

*Sensation.* Sensation is the most basic of these remaining two ways, but also the most difficult to understand properly. In general, Locke thought that the ideas that arise from sensation are those we get when we observe external objects (II.i.2). But it is important to be clear about just what this means. For Locke, the observation of external objects is not something that we do; it is rather something that is done to us. We are passive when receiving ideas by sensation (II.i.25). For



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observation to take place, objects must first affect our sense organs. The effects that objects have on our sense organs are then conveyed to the brain, which Locke described as the mind's "presence room" (II.iii.1). (A presence room was a room where a person went in order to have an audience with the Sovereign.) Once there, the effects somehow cause the mind to have an idea, and it is that idea that we actually observe. Locke made this all explicit at II.i.3, where he wrote:

when I say the senses convey [ideas] into the mind, I mean, they from external Objects convey into the mind what produces there those *Perceptions*.

A similar point is made at II.1.23, where Locke defined sensation as "such an Impression or Motion, made in some part of the Body, as produces some Perception in the Understanding. On this account, sensations are not ideas; they are rather physiological states of the sensory nerves and brain that cause the mind to have certain ideas — those ideas that we denominate as ideas "of" (i.e., ideas coming from) sensation.

So the ideas we receive through sensation do not actually exist in the outside world, at least as far as Locke was willing to say at this point. External objects exist in the outside world. They do not even exist in our bodies or brains. Physiological states of the sensory nerves and brain exist in our bodies and brains. Our sense organs and brains convey something from external objects to the mind. This conveyed item is not our ideas of colours, heat and cold, or other qualities. What is conveyed by the senses is rather some motion or impression. This motion or impression somehow produces ideas of colours, heat and cold, and other qualities in the mind. So, whatever ideas may be, they are something that arises in the mind. They are not something that is conveyed into the mind from the outside. They are, however, caused to arise in the mind by something conveyed to the brain from the outside. Consequently, the extent to which there is any resemblance between ideas and objects, or, for that matter, between ideas and their causes in the brain, is unclear. Locke considered this matter later, in II.viii.7-26.

Though ideas arise only in the mind, and are not conveyed into it from something existing outside of it in bodies, it does not follow that ideas are innate. They are not innate because they only get produced in the mind through something else being, as Locke put it, conveyed to the mind by the senses from objects. Somehow — we do not know how — objects affecting the senses determine the production of ideas in the mind, so that were those objects not to affect the senses the ideas would simply not arise. The mind is nonetheless so constituted as to produce certain ideas when appropriately stimulated, and this constitution is innate. Recall that Locke had no quarrel with innate abilities; he only rejected ideas and judgments that are supposed to emerge out of the constitution of the mind independently of any influence from the senses.

*Reflection.* Locke supposed that some of these innate abilities are cognitive and some conative in nature. The conative abilities produce desires and aversions and our other passions, and the cognitive abilities modify our ideas in various ways: by comparing them and noting marks of resemblance or difference, by compounding or dividing them, by abstracting their common characteristics, by applying names to them, or simply by attending to them and leading us to become conscious of their presence. Once the mind acquires a store of ideas from sensation, these abilities begin to operate on the ideas.

Locke supposed that the mind's operations are transparent to it. It need only exercise an adequate degree of attention in order to become aware that it is performing them. This means



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coming to have an idea of the particular operation it is performing. These ideas are ideas of reflection.

It is important to stress that though the operations the mind performs may be operations it is innately enabled to perform, the ideas it forms of these operations are not innate but only discovered by experience. This is because, unless something first happens to the mind to arouse it to perform the innate operations, it will never become aware of what abilities it has. The mind's abilities only become transparent to it through their exercise, and this requires that sensations first come into it and create the occasion for it to exercise its abilities.

Locke's discussion of ideas of reflection has anti-Cartesian implications that he remarked on over II.i.9-19. For Locke, the mind is not equated with the act of thinking. It is rather described as the thing that holds ideas. It is in principle possible that the mind could be empty of ideas (as the metaphor of blank paper at II.i.2 implies), yet still exist. Thought, therefore, is not the essence of the mind, as Descartes supposed, and it is not necessary that the mind always think. Locke attempted to prove this empirically, by claiming that there is no thought in deep sleep, even though the mind may be supposed to persist throughout.

*Locke's Empirism.* Locke claimed that the two sources of sensation and reflection are the sole sources of our ideas. Ideas that do not originate from sensation or reflection are generated by acts of mind performed upon ideas that have previously been received from sensation or reflection. However, this was not something Locke claimed to prove with certainty. The Cartesian idea of starting from absolutely certain first principles is one that he rejected. But while he did not have a proof from first principles, he did think we have good evidence for this proposition. The evidence is of two main sorts.

Locke first claimed that there are certain ideas that are obviously acquired from sensation. He then tried to show how all of our other ideas could be derived from those that are obviously acquired by performing various mental operations on these ideas, and by reflecting on our own acts in doing so.

The second of these points is one that Locke argued for over the course of *Essay II*. To buttress his position on the first point, the claim that there are certain ideas that are obviously acquired from sensation, Locke appealed to our observation of children (II.i.6 and 22), of those born lacking the use of particular sense organs (II.ii.3, II.iii.1, and III.iv.11), and of those who have never had experience of certain objects (II.i.6-7 and ii.2). Observation appears to indicate that there are certain ideas that children only acquire from experience; indeed, some of these ideas are acquired so late that we can actually remember the occasion when we first acquired them (think of the tastes of certain wines or exotic foods). Even more tellingly, those who were born without the use of a particular sense organ cannot form any ideas of the qualities specific to that sense. Those who have been blind since birth, for example, are unable to form any idea of colours, and even extensive discussion with those who can see is inadequate to give them any concept of what the colour red looks like. A similar point holds for those who, while they have the use of all their senses, have never had their senses affected by particular objects. Those who have never tasted pineapple, for example, are no more able to form a concept of this taste than someone who has been blind since birth is able to form an idea of colour.

Locke took these points to indicate that there are certain ideas that can only be obtained through having particular sense organs affected by particular objects, and that can in no way arise in the absence of those objects or in the absence of the appropriate sense organs. Having



established that much, it only remained for him to argue that all of our remaining ideas are derived from one or another set of operations performed upon these obviously acquired ideas.

*Simple and complex ideas.* The ideas we get from external sensation and reflection may be either simple or complex. They are simple when they “exhibit one uniform appearance” (II.ii.1), that is, when they do not look to contain more than one thing. They are complex when they are repeated, compounded or otherwise related to one another.

Examples of simple ideas are all the individual colours in their different tints, tones, and shades; particular smells and tastes like the smell of lily or rose and the taste of sugar; noises, sounds and tones; feelings of hardness and softness, warmth and coldness, smoothness and roughness, and solidity; also the ideas we have of space or extension in general, duration in general, motion in general; and the ideas we have of the distinct acts of the mind: believing, imagining, remembering, willing, and so on.

Complex ideas can arise through modifying simple ideas by repeating, compounding, dividing, delimiting or comparing them. For example, the ideas of shapes arise from delimiting simple ideas of space, the ideas of numbers from repeating simple ideas numbers; the ideas of a red triangle or a turtle from compounding simple ideas or modifications of simple ideas, and the ideas of brightness or cause by comparing ideas.

Locke remarked that our “understanding” (i.e., imagination) can itself spontaneously repeat, compound, divide or compare ideas to create new complex ideas, and he also claimed that our ideas “enter by the Senses simple and unmixed” (II.ii.1). But it would be a mistake to suppose that for Locke we receive simple ideas one after another in a stream, and that all aggregation of ideas is due to the mind. On the contrary, in the sentence immediately following that in which he wrote that ideas enter by the senses simple and unmixed he stated that “the Sight and Touch often take in from the same Object, at the same time, different IDEAS.” It would appear, therefore, that Locke considered us to receive entire bundles or collections of ideas simultaneously through the act of perception. He just thought that these ideas retain their individuality so that they can be immediately told apart from one another.

Simple ideas cannot be confused with one another (so they are perfectly clear) and, being simple, they have no parts (so there is nothing in them that can be confused with anything else). The awareness of simple ideas therefore constitutes the clearest and most distinct knowledge that we are capable of. “Nothing can be plainer,” Locke wrote, “than the clear and distinct Perception [we have] of those simple Ideas.”

Over II.viii.1-6 Locke remarked on an anti-Cartesian implication of his account of simple ideas: On his account, ideas of privative qualities like those of black, cold, or soft, are as real and positive as any others. There is, in other words, no such thing as material falsity.

For Descartes, the only “simple ideas” that are perceived with perfect clarity and distinctness are those the understanding is supposed to be able to discern through its own inner resources, without the aid of the senses. Locke’s rejection of understanding as a distinct source of ideas led him to invert Descartes’s picture. For Locke, what is most certain and trustworthy is what our senses first tell us about. This includes the modes of thought (which are revealed to us by reflection) and the modes of extension (which are revealed to us by sensation), but also all the other sensible qualities — colours, weight, solidity, temperature, scent, and the like. The “historical, plain method” (discussed in the previous chapter) is not concerned with uncovering what may be in the object that causes these ideas — whether the presence of a thing or its absence — but with



investigating how that idea gets processed once it has been received. From this perspective, even if there were “materially false” ideas produced in us by nothing at all, they would have as real and positive a role to play as any other ideas. The idea itself is not nothing, even if its cause might be.

But Locke also had problems with the notion that our supposedly privative ideas could in fact be caused by nothing. If one idea (for example heat) is caused by a certain motion in the sense organs (say high and frequent vibration), then the opposite of that idea (cold) would be brought about by the absence of that motion (no vibration) or by a contrary motion. But the absence of motion is not nothing, but rest, and a contrary motion is certainly not nothing. So as far as Locke was concerned, not only is every idea real and positive, but the causes of ideas must be real and positive as well.

*Solidity.* Locke singled out the idea of solidity for special attention. He defined it as the idea that we get through our sense of touch when we approach a body and find that it does not allow us to enter the space it occupies. The idea of solidity is thus the idea of resistance to compression or of repulsion. It is, in effect, an idea of a force or power to resist motion in a certain direction.

Considered as such, the idea of solidity is to be distinguished from that of hardness. Whereas solidity has to do with repulsion, hardness has to do with attraction or cohesion. When the parts of a body attract one another or cohere together so strongly that they resist our attempts to move them relative to one another, we say the body is hard. But very soft bodies, such as water, can still be solid, in the sense of resisting compression. Locke considered hardness to be something that comes in degrees and is relative to our own strength. The stronger we are, the sooner we can make the parts of a body move relative to one another and the softer we consider it to be. But solidity is something Locke assumed to be absolute. It does not come in degrees but is always present to perfection. He did not believe, as we do today, that it is in principle possible to go on compressing materials forever to produce denser and denser things like neutron stars or black holes. Instead, like Newton, he supposed that all bodies are perfectly solid and will resist even the smallest compression. If we are able to squeeze bodies into smaller spaces at all it is only because they are spring- or vault-shaped and so enclose void spaces. But as soon as they are compressed so far that their parts are in contact with one another, no force in the universe would be capable of compressing them any further. Like Newton, Locke took this to be something that is taught to us by all our experience.

Whether we move or rest, in whatever posture we are, we always feel something under us that supports us and hinders our further sinking downwards, and the bodies [that] we daily handle make us perceive that, while they remain between them, they do by an insurmountable force hinder the approach of the parts of our hands that press them. [II.iv.1]

In part because of this absolute nature, Locke considered solidity to be the most important among the simple ideas we receive in sensation (most other qualities come in degrees). He identified it as the idea that “seems the ... most intimately connected with, and essential to body” (II.iv.1). In fact, he speculated at Essay II.iv.5 that inertial force (“impulse”), cohesion, and hardness may simply be modes of solidity.

This is something of a startling claim. Anyone steeped in Cartesian doubts about the existence of an external world would immediately raise questions about what made Locke so sure, at this point in his investigations, that there even are bodies in an external world. Indeed, anyone who appreciates the idea of the “historical plain method” will wonder what Locke was doing suddenly



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talking about bodies rather than about the ideas that first come to our attention. These are issues that will be considered in more detail in the following chapter.

To return to the main point, Locke's view was that, wherever we think there is some body, that is, some material thing, we also think there is resistance or solidity. In making this claim, Locke was staking out a very different position on our idea of the essential nature of body. Rather than say that our idea of body is just an idea of a shaped and movable piece of extension, Locke insisted that it requires something more: the additional idea of solidity or impenetrability — the idea, in other words, of repulsive force. Remove this idea of solidity from the idea of an extended body and it ceases to be an idea of body and becomes an idea of empty space.

Thus, for Locke, unlike for Descartes, there is a distinction to be drawn between the ideas of space and of body. The idea of body is the idea of a solid, divisible, and movable extension. The idea of space is the idea of a penetrable, indivisible and immovable extension. We think that bodies sit in space, which they penetrate perfectly and move through.

Locke justified this position on body and space by appeal to experience. Whenever our experience supplies us with an idea of something that we consider to be a body, he claimed, we also find that it supplies us with the idea of solidity. Descartes had tried to undermine this view with the argument of *Principles* II.4 and II.11, where he had claimed that if all bodies retreated from our hands when we attempted to touch them, we would still have an idea of body. But Locke could have replied that the thought experiment only proves that we can conceive of bodies without having to conceive them to be hard, not that we can conceive of them without having to conceive of them to be solid. Solidity is the property of resisting penetration, and if bodies retreat from our hands as we approach them that does not mean that they are not solid. After all, as long as they retreat from our hands, the test to determine whether they resist penetration has only been confirmed, not disconfirmed. If they were not solid, they would not retreat but would allow our hands to pass through them like mist. Locke could have asked what would happen if there were an immovable wall just behind the bodies we reach out for. Would they retreat through the wall? Then there would be two bodies in one place at the same time, which Descartes would hardly accept. Would they allow our hands to penetrate their dimensions? Then we would not think they are bodies, but empty space. Or would they resist the motion of our hands with “an insurmountable force?” Then solidity, and not just extension, is essential to body.

Neither was Locke convinced by Descartes's arguments against empty space. For Locke, if you remove all solid, movable extension from a container, there will still be something, namely penetrable immovable extension, left over between its walls, and therefore the walls will not be together.

Locke reiterated these points, and supplemented them with further arguments in favour of the existence of a vacuum, over *Essay* II.xiii.11-27.

Locke's position on these matters was seconded by Newton, who famously argued for the existence of an “absolute,” immovable, and perfectly penetrable space distinct from body by appeal to an experiment with a rotating bucket of water (Matthews, 139-146). But Locke's attempt to justify his position on solidity by appeal to experience also has echoes in Newton's Rule 3. Newton had declared in Rule 3 that “the qualities of bodies [that] ... are found to belong to all bodies within the reach of our experiments, are to be esteemed the universal qualities of all bodies whatsoever,” and that is just what Locke argued: that all our experience of bodies contains an experience of solidity, or that all the ideas of bodies we get from our senses include the idea of solidity. Like Newton, Locke was holding that if our senses show us that something is to be found



in all bodies then that thing must be an essential quality of all bodies. Descartes's thought experiments are beside the point. Even if we could conceive bodies that are not solid, if all our experience shows us that bodies are solid — that is, if all the ideas our senses give us of bodies are ideas that contain the idea of solidity — then we must take solidity to be a universal property of body.

#### ESSAY QUESTIONS AND RESEARCH PROJECTS

1. Critically assess Locke's argument for empirism, as presented over *Essay* II.i.5-7, ii.2-3, iii.1 and III.iv.11.
2. In the mid-eighteenth century the French philosopher, Etienne Bonnot, Abbé de Condillac, argued that Locke had been too moderate in his empirism insofar as he had allowed that we might be innately capable of performing certain operations on our ideas and obtaining "ideas of reflection" from reflecting on those operations. According to the argument of Condillac's most famous work, the *Treatise on sensations*, we learn to perform all mental operations through having our attention focused in certain ways as a consequence of the experience of pleasure and pain. Study Condillac's work and explain whether his "sensationalist" reply to Locke is ultimately successful.
3. Locke's position on the distinction between body and space was a controversial one, and many philosophers in addition to Descartes found it difficult to accept. He offered further arguments for it in a chapter specifically devoted to space, *Essay* II.xiii. Some of the principal arguments against the possibility of empty space were articulated by Pierre Bayle in note I of the article on "Zeno of Elea" from his *Historical and critical dictionary* (Richard H. Popkin, trans. [Indianapolis: Hackett, 1991], pp.377-385), with specific reference to Locke's inability to defend his position with anything more than objections to the contrary position. Berkeley further amplified these arguments over *Principles* 110-117, and in a short, Latin treatise, *De motu*. Assess the strength of Locke's case for "penetrable, immovable, indivisible extension" in *Essay* II.xiii in light of the objections raised by Bayle and Berkeley.

