

# Expound and assess lockes account of solidity philosophy essay



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In Locke's 'An Essay Concerning Human Understanding', he sets out to examine what it is possibly us to know, and at the same time understand the limits of our understanding. He begins by claiming that the reason that those have explored similar ideas have never come to any real conclusion, only provoked more questions, is that they began at the other end – looking at what we do know, rather than starting at the simplest level, looking at what it is possible to know. Locke starts by dismissing the validity of innate ideas, thoughts which we are born with and do not rely on experience to know. Some common ideas of innate knowledge, largely attributed to Descartes, are the idea of God, morality and substance to name a few. Locke attacks both the thought that these ideas are with us and we are aware of them when we are born and the thought that these ideas are propositional; they are always with us but the conditions of our understanding must be just right in order for us to be aware of them. He begins by likening the idea that we are born with these relatively complicated ideas to the idea that a child or an idiot would be aware of them, to which he responds that they would “ have not the least appreciation or thought of them” (p49). It is relatively easy to agree with Locke up to this point, as the idea that a child or someone with extremely limited mental facilities is aware of an omniscient, infinite and omnipotent being without any external influence seems unlikely. This idea is backed up by a previous 12th Century Arabic thought experiment conducted by Ibn Tufail in which he imagines a feral child born in isolation on a desert island, with no influence from society and only his senses through which to acquire knowledge. He then moves on to question the validity of propositional innate ideas, those which we become aware of when we “ come to the use of reason” (p11). Locke argues that, following this

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reasoning, it would be impossible to distinguish between a logical truth (A= B therefore B= A for example) and a mathematics theorem. According to proponents of innate ideas, a logical truth is innate while a mathematical theorem is not – something that is not apparent when following this argument. At this point, Locke believes he has sufficiently proven that there can be ideas within us that are innate. So how can we have an idea of these things? He argues that every idea we are aware of has come to us through our senses. Here Locke makes the point of differentiating between simple and complex ideas. He describes a simple idea as one which is derived from our senses, such as the appearance of an object, while a complex idea is a compound of several simple ideas of conceived in parallel. So, for example, the simple idea of a horse alongside the simple idea of “ being in a field” can form the complex idea of “ a horse that it situated in a field”, but even this complex idea is only conceived of through sensation and reflection.

In order to understand Locke’s account of solidity in an object one must first examine, in a more general way, how Locke divides properties of an object up. When considering the properties of an object such as size, shape, number, colour and taste, Locke argues that they cannot be considered in the same way. He states that certain qualities are inseparable from the object and are a part of them regardless of whether they are being perceived. “ The particular bulk, number, figure, and motion of the parts of fire or snow are really in them, whether anyone’s senses perceive them or not. And therefore they might be called real qualities, because they really exist in those bodies.” (II. xviii. 17) Locke names these qualities as solidity (the state of the matter), extension (how much space they take up,

essentially their size), motion (whether they are moving or stationary), number (the quantity) and figure (the shape of the object). He puts these under the heading of primary qualities. Next Locke considers the other qualities which are not included in this list, the generally more sensory qualities of taste, smell, feel and colour. Locke argues that, unlike the primary qualities, these qualities exist in our perception and are not a part of the object in the same way. He argues that these secondary qualities, require an observer in order to exist. At this stage, if we follow Locke's reasoning and consider the idea of shape a primary quality and the idea of colour a secondary quality, we can fairly comfortably agree that there is a distinction between the two.

Locke goes into some detail when describing what he means by the solidity of an object, dividing the definition into five criteria. His first description of solidity is that " we receive this idea from touch" (p65). The idea of solidity rests on the principles of mechanical philosophy, that it relies on the reaction and impact of one body on another. If we imagine reaching out and touching a rock, for example, we know that we will experience resistance from the rock. Lock says that this resistance when we touch it lets us know that the rock is ' solid'. Locke says, " that which thus hinders the approach of two bodies, when they are moved one towards another, I call solidity." That is to say, if we try and move our two hands together, any body between our hands which hinders their progress in any way can be considered ' solid'. It is important to note here that Locke's definition of solid in this case is not the same as a solid in terms of solid, liquid or gas, as he goes on to explain how water can be considered solid. Locke's second description of solidity is that "

solidity fills space” (p66). By this Locke means that, similarly to the idea of resistance cited above, if a foreign body enters the space that the body occupies and its progress is hindered in any way, the body can be considered solid. This definition is relatively straightforward and easy to understand, and can be thought of along the same lines as Locke’s third definition, that a solid body is distinct from the space around it. This means that, no matter what force is exerted, an object which is solid will never cease to be separate from the objects around it. Furthermore the solid body will never cease to be separate from the empty space around it. Fourthly, Locke makes the important differentiation between solidity and hardness. He claims that the hardness of an object is a relative and subjective property and can therefore be considered a secondary quality, unlike solidity which is a primary quality. “ Hard and soft are names that we give to things, only in relation to the constitutions of our own bodies” (p67), therefore solidity is nothing to do with hardness. For example water is considered to be less hard than diamond because it can be separated and moved around more easily, but if there was a way of keeping it in place it would resist pressure from other objects just as well as diamond. Finally, Locke’s fifth description of solidity

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There are a number of problems with Locke’s account for solidity which immediately become apparent. One, purely technical, problem with this account for solidity is Locke’s claim, in his fourth definition of solidity – of its difference from hardness, that if water “ could be kept from making place by that side motion... It would be as impossible, by any force, to surmount their resistance, as to surmount the resistance as parts of a diamond”. While this

was probably considered true by science in the late 17th and early 18th century, we now know that it is possible to overcome almost any material's resistance if enough pressure is exerted. While this argument is not absolutely integral to Locke's account of solidity, any part of the argument being undermined weakens the argument as a whole.

Another difficulty faced is the Locke's claim that solidity is a primary quality of an object.. It is really valid to describe solidity as a primary quality though? This implies that the quality is present in the object without requiring any external body or observer, yet Locke's second and third descriptions of solidity are concerned with the idea of space, and one could argue that the idea of space itself requires other bodies by definition. We cannot imagine the notion of space without there being other bodies for to have space between? If this is true, it could be argued that solidity is in fact a secondary quality.

There are are also problems with the base upon which Locke builds his account of solidity. One of the most important points Locke makes in his Essay is that there are no innate ideas whatsoever. He believes that we all begin life with a " tabula rasa" – a blank slate – which is totally devoid of ideas until we begin to acquire them through our senses. However this seems contradictory, Locke makes the point that we perceive simple ideas through our senses, interpret them, are able to reflect upon them and combine them with other ideas to make complex ideas; a fairly complex cognitive process. But if we truly are a blank slate when we are born how do we have the knowledge to do this before acquiring anything through our senses? If this argument is valid then it seriously undermines one of Locke's

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most important claims, that innate ideas are impossible. Locke might argue that there are certain things we instinctively know how to do, such as breathing, making our heart beat and hearing, and do not have to be taught because they are nervous as opposed to cognitive. He may be right, these things can be considered passive impulses rather than ideas as such, and perhaps perception may be included under this description, but to claim that self reflection and the combination of simple ideas to make complex ones are passive seems like a little too much of a stretch.

Berkeley disagreed with Locke's idea that objects have primary qualities which exist outside of our perceptions. He argued that an object must be perceived, or at least be imagined to be perceived, in order to exist.

Berkeley argued that our own perceptions are the only things we can be sure of, and that objects did not exist outside of these perceptions. If we consider an object without any of its secondary qualities, without smell or colour or texture, it makes it very hard to conceive. Berkeley would argue that you cannot imagine a football, for example, without imagining its colour or its smell, which only exist in our own perceptions. Therefore he would conclude that there is no distinction between primary and secondary qualities, that all qualities are dependant on our perceptions and do not exist outside of them. To this extent, Berkeley's arguments undermine Locke's claim in his account of solidity that solidity is a primary quality of an object.

In Mackie's ' Problems from Locke' it is not completely clear as to whether he considers solidity to be among primary, as Locke does, or secondary.

Mackie's understanding of ' powers', Locke's secondary qualities of an object, seems to be that it affects another object in some way. The <https://assignbuster.com/expound-and-assess-lockes-account-of-solidity-philosophy-essay/>

(perceived) colour of an object, for instance, affecting our senses. “ To say that a certain thing has a certain power is just to say that it would affect or be affected by another thing of a certain sort in some specific manner.” (p9)

Now this sounds rather similar to many of Locke’s definitions of solidity. His first, that “ we receive this idea from touch”, is immediately questionable if we follow Mackie’s definition of powers. It depends on how the following description is read: “ The idea of solidity we receive by touch; and it arises from the resistance which we find in body” (p65). This could mean that the object in question is resisting our hand, which would follow Mackie’s definition of powers as it affects another thing. Locke’s second definition, that a solid object must fill a space, is similarly questionable. A solid object will “ hinder any other two bodies, that move towards one another in a straight line”. This also sounds like the object in question is affecting another object, which in Mackie’s eyes would make it a secondary quality. Locke’s distinction between solidity and hardness also falls under this category in a way as it must resist the pressure of the other objects.

In conclusion, other than minor questions raised, such as the whether or not it is physically possible to compress materials given enough pressure, Locke’s five definitions of solidity seem relatively valid. What is a larger issue, and is in contention, is whether or not Locke was right in calling solidity a primary quality and not a secondary quality, or even whether he was right in making a distinction between the two. Locke’s point that there is a difference between qualities of an object that are necessarily part of the object and qualities that require a subjective observer seems logical, until we begin to consider, as Berkeley did, what exactly can be considered a quality



that is a necessary part of an object and not at all subjective. Shape, for instance, is considered by Locke to be a primary quality, can be considered subjective. A commonly cited argument is that a square table looked at from different angles can appear to change shape. If a quality is subjective then, by Locke's own reasoning, it must be a secondary quality and not a part of the object itself. Substance, also considered by Locke to be a primary quality, seems equally questionable. According to Mackie's understanding of a secondary quality, substance seems more like a secondary quality than a primary quality.