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Locke's Response to the Molyneux Problem: Weaknesses Revealed by Leibniz

When I touch an object in darkness, I can visualise its shape not through the process of sensing the object itself, but because I have *observed* shapes before. On some occasion, I have linked tactile and visual perceptions to a common idea, learning what combination of pressure on my palm corresponds to a certain visual image of shape. If what I feel is solid, smooth and rounded, I will see the image of a globe; if what I feel is solid and regular with eight protruding corners, I will see the image of a cube. This account captures one of the main ideas in Locke's *An Essay Concerning Human Understanding* (1689, 1699): in *experience*, "all our knowledge is founded; and from that it ultimately derives itself"[1]. Having read a draft of the *Essay*, Molyneux wrote Locke a letter in 1688, questioning him whether he thought that a man who had been blind from birth, and who had learnt to distinguish between a globe and a cube "by Touch or Feeling" – upon astonishingly regaining his sight – would be able to "before he touch them, know which is the Globe and which is the Cube"[2]. Locke's reply, which he included in the second edition of the *Essay*[3], was that "the blind man, at first sight, would not be able with certainty to say, which was the globe, which the cube" (II, ix, 8), because he "has obtained the experience of, how a globe, how a cube affects his touch (…) he has not yet attained the experience, that what affects his touch so and so, must affect his sight so and so" (that is, the blind man would never have had the occasion to associate his visual and tactile perceptions to a common idea). In this essay, I will examine Locke's negative response to Molyneux's problem by contrasting it with the more affirmative one of Leibniz. By assessing the assumptions behind Locke's reasoning, I will argue that whilst his negative response is justified in some particular circumstances, it must be questioned whether it can be generalised to encompass all possible scenarios.

In declaring his negative response to Molyneux's problem, Locke must reject two distinct propositions: first, that a blind person can *induce* an inner visual picture of a globe or a cube merely by touching it, and second, that a blind person can "by applying rational principles to the sensory knowledge which he has already acquired by touch"[4] *deduce* which object is a globe and which is a cube when encountering the two objects visually for the first time. Because it seems to be less problematic to reject the former of these two propositions, the emphasis of my discussion will be on evaluating the latter.

If Locke did not reject the first proposition (that a person could induce a visual idea from tactile experiences alone), then a blind person would be able to tell any two physical objects apart at the moment of regaining his sight, because the person would already have a lucid visual image of

[1] Locke, II, i, 2. Further references to this work will be incorporated in the text.
[2] Molyneux, p.483.
[3] Bolton, p.75.
[4] Leibniz, II, ix, 8.

each particular object in his mind, acquired by inference from his tactile perceptions. Essentially, Locke's rejection of this proposition stems from his account of 'simple' ideas, in which he argues that any idea we have about sensation can only be derived from the sense (sound, taste, smell, sight, touch) responsible for that particular sensation (and so, it cannot be inferred by any other means):

> I think it is *not possible* for anyone to *imagine* any other qualities in bodies, howsoever constituted whereby they can be taken notice of, besides sounds, tastes, smells, visible and tangible qualities. And had mankind been made with but four senses, the qualities then, which are the object of the fifth sense, had been as far from our notice, imagination, and conception, as now any *belonging to a sixth, seventh, or eighth sense*, can possibly be. (II, ii, 3)

At this point, Locke explicitly discards the idea "that a blind man hath ideas of colours" (II, ii, 3), since the idea of colour can only be obtained from sight, which the blind person clearly lacks. However, it also follows from this argument that whilst a blind person may have rich ideas of shapes (such as globes or cubes) in the tactile sense, he can under no circumstances have an idea of them in the visual sense. This would imply, for instance, that the congenitally blind cannot have dreams comprising visual imagery (anything visual would be beyond their imagination) – a thesis which seems to be reasonably well-established.[5] On comparing the human mind to a radar system, Locke would argue that the radar must be programmed and configured (the mind has to be exposed to visual experiences) to 'learn' how to render visual images from tactile perceptions. If we accept Locke's denial of innate ideas (implying that humans have no 'intrinsic' ability to connect perceptions of the different senses), then we would also have to follow Locke in rejecting the proposition that a person can induce a visual idea from his tactile experiences alone.

Not rejecting the second proposition (that the blind person could rationally deduce the difference between the two objects when encountering them visually for the first time) would have less dramatic consequences than not rejecting the first, but would nonetheless force Locke to change his stance on the Molyneux problem. Having explicitly formulated two premises he considers implicit in Molyneux's original query, Leibniz chooses – as opposed to Locke – to accept the second proposition. The first premise is that the blind person "knows that the two shaped bodies which he has to discern are before him and thus that each of the appearances which he sees is either than of a cube or that of a sphere"[6]. In his letter to Locke, Molyneux refers to the two objects as "Laid on a Table"[7], a condition preserved in the *Essay* as "placed on a table" (II, ii, 8), confining the scope of the enquiry in the way Leibniz suggests. Hence, it is arguable that Leibniz's and Locke's interpretations do not differ significantly on this point. The second premise, which I will argue is the main reason for the disagreement between Leibniz and Locke,

[5] See, for instance, Hurovitz et al. (1999), who in their empirical study came to the conclusion that "[t]here are no visual images in the dreams of those born without any ability to experience visual imagery in waking life".
[6] Leibniz, II, ix, 8.
[7] Molyneux, p.483.

is that Leibniz takes for granted that the formerly blind person can actually *move about* the two objects and examine them from different angles; for instance, Leibniz's blind person can tell that on "the cube there are eight points which are distinguished from the others"[8] and seems to be given the opportunity to study the objects in more detail. Locke, on the other hand, does not allow for this 'detailed study', referring only to how the blind person would perceive the objects "at first sight" (II, ix, 8), as if the person was granted only a short glimpse for discerning between the globe and the cube. With Locke's interpretation, which I will take as generating only an 'impression' or a 'snapshot' (we are not even given time to look at the object with either one of our eyes closed), it must be argued that the blind person would have no way of distinguishing between the two objects once he starts to see: the only way of determining their three-dimensional shapes would be by interpreting the shadows cast on their different parts – an impossible task for a person with no previous experience of visual perception. With Leibniz's interpretation, on the other hand, the person would move about the objects, observing the shadows change on moving himself into a different position, and seeing how – when viewed from different angles – the perception of one object (the cube) alters whilst that of the other (the globe) remains the same. Here, the person could "by applying his rational principles"[9] deduce that amongst these two objects, that with irregularities must be the object which he had sensed as protruding corners in his palm, whilst that of uniformity must be the object causing sensory experiences such as smoothness and roundness. From this point of view, the step to giving an affirmative answer to this restricted version of Molyneux's problem involves such a small amount of reasoning that not taking it would seem at odds with Locke's claims about our "internal sense", which includes "reasoning" as a crucial part (II, i, 5). It is arguable that Locke was aware of this complication, and that this was the reason for inserting the ambiguous "at first sight" (II, ix, 8) clause (which was not part of Molyneux's original formulation[10]) into his response in the first place.

In this essay, I have suggested that in order for Locke to give a negative response to the Molyneux problem, he must reject two propositions: that visual ideas cannot be inferred from tactile experiences, and that knowledge derived from tactile experiences alone cannot be applied to interpret visual perceptions once encountering them. I have argued that whilst rejecting the first of these propositions seems to be consistent with Locke's epistemology, rejecting the second is considerably more problematic. In some circumstances, such as Leibniz's interpretation of the Molyneux scenario, it seems like Locke's negative response to the Molyneux problem is not only counter-intuitive, but also inconsistent with other parts of his argument.

[8] Leibniz, II, ix, 8.
[9] Leibniz, II, ix, 8.
[10] Molyneux, p.483.

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