

Reid and Condillac on Sensation and Perception: A Thought Experiment on Sensory Deprivation

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1. In his analysis of the operations of the mind, Reid distinguished sensations from perceptions. According to Reid, sensations are non-intentional states of mind. They are normally occasioned by the action of external objects on our sense organs, but the causal relation at play here is merely a constant conjunction of events. Moreover, sensations, being states of mind, do not resemble the qualities in the external objects that occasion them.¹

In their turn, sensations are regularly followed by perceptions. These are intentional acts of mind whereby we conceive of qualities of external objects and believe in their existence. Again, the relation between sensations and perceptions is merely a constant conjunction of events. In Reid's terminology, this relation is a law of nature established by God, but it does not point to a necessary connection arising from the nature of things. We could have had sensations without perceptions or perceptions without sensations, if God had so decided and had framed differently our constitution.²

In his *Inquiry into the Human Mind* (1764), Reid introduced a thought experiment in order to determine "whether from sensation alone we can collect any notion of extension, figure, motion, and space."³ Reid imagines a blind man that "by some strange distemper" has lost all notions of primary qualities he normally has by the sense of touch. These include the conceptions of "the existence, figure, dimensions, or extension, either of his own body, or of any other."⁴ Reid asks whether the blind man would be capable of acquiring all these notions merely by means of sensations and the power of reasoning, which he supposes to remain intact. Reid subjects the blind man of his thought experiment to a series of sensory stimulations of increasing complexity, but no matter what sensations the blind man receives, the subject cannot possibly infer from them the conceptions of primary qualities he has lost.⁵

By means of this thought experiment, we can direct our attention to the nature of sensations, and come to realize that they do not resemble the primary qualities of external objects. Since sensations do not resemble the primary qualities of external objects, the blind man could not possibly infer

from sensations alone what these qualities would be like.⁶

In a recent book, Ryan Nichols criticizes this experiment by saying that Reid did not take into account a more complicated case of sensory stimulation by touch that had been presented by Condillac in his *Treatise on Sensations* (1754). In trying to address this objection on behalf of Reid, Nichols considers an early pre-*Inquiry* manuscript, where Reid indeed considers a more complicated case of sensory stimulation by touch. I argue that Condillac's more complex case of sensory stimulation is successful only insofar as Condillac more or less surreptitiously reintroduces a relation of resemblance between a certain set of sensations and the qualities in the external object. But the point of Reid's thought experiment is precisely to direct our attention to the fact that no matter how varied and complex our sensations are, they do not resemble the qualities of an external object.

2. The main purpose of Condillac's *Treatise on Sensations* is to show that we derive "all our knowledge and all our faculties" from mere sensation.⁷ Condillac asks us to imagine a "statue," an adult human being who has no innate abilities, no innate ideas of objects, and no prior sensory experience of objects, but still has the capacity to experience sensations. He subjects each sense of the statue to stimulation in order to determine what it would be able to know merely from the sensations it experiences. Condillac denies that the statue would be able to derive intentional conceptions of its own body, of other bodies, and of the space they occupy from the sensations it has through the senses of smell, hearing, and sight. It is only by touch that we get to know that we have a body, that there are other bodies beside our own, and that there is a space where they both move.⁸ Condillac specifies a condition for the formation of these notions:

It is thus evident that we will not proceed from our sensations to a knowledge of objects except insofar as those sensations produce the phenomenon of extension; and because an object is a continuum formed by the contiguity of other extended objects, the sensation that represents it must be a continuum formed by the contiguity of other extended sensations.⁹

Nichols notices that this is an "obscure necessary condition for acquiring intentional perceptual content" and that "[d]espite what is said in the last part of this sentence, Condillac recognizes that 'sensations belong only to the mind' and do not 'extend' beyond it. After all, if sensations are themselves extended, then having sensations *ipso facto* generates an awareness of extension."¹⁰ But why should not this be what Condillac means in his remark, perhaps without realizing the inconsistency with other passages of his work? We can acquire intentional

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concepts of mind-independent external objects precisely by way of an inference (or judgment) from the properties of sensations (or collections of sensations) to the properties of bodies. This judgment is possible because of the resemblance existing between (at least some of) the properties of sensations and those of the objects. Only if we are aware of a collection of extended sensations that are contiguous to each other and form a continuum, can we ultimately become aware of an external object. But Reid, as we have seen, denies that whatever collection of tangible sensations we consider could ever resemble the properties of external objects, and that therefore it could ever yield the notion itself of extension.

3. In Condillac's reconstruction, the statue learns first that it has a body before it can recognize that there are other bodies. Our body is not only extended but also impenetrable, that is, it excludes other bodies from the same place. Strictly speaking, "[t]his impenetrability is not a sensation," and so we do not sense the impenetrability itself of bodies.¹¹ However, it is from the sensation of solidity that we can infer that two bodies cannot occupy the same place at the same time. It seems that we can do that precisely because there is a resemblance relation between the sensation and the quality, as appears from the following remark of Condillac:

Since the essence of this sensation of solidity is to represent at one and the same moment two things that exclude each other, the mind will not perceive solidity as one of those states in which it finds only itself; it will perceive it necessarily as a state in which it finds two things that are mutually exclusive and as a result it will perceive it [solidity] in these two things.¹²

In touching its chest with its hand, the statue has two simultaneous sensations of solidity answering each other. By these sensations the statue not only discovers two extended and contiguous body parts excluding each other from the same place, but it also finds its "I" (*its moi*) in each of them. The statue will literally perceive itself to be "outside of itself," or, better, it will perceive itself in two different bodies that exclude each other from the same place at the same time. In order to form the notion that these bodies in which it finds itself form a single body, the statue has to move continuously its hand over its own body. In this manner, "it will experience a continuity of self at its fingertips," it will experience its body as forming a single continuum of parts contiguous to each other.¹³

Insofar as the statue only touches itself, it will conceive of itself as the only thing existing. But in touching another object and not receiving

an answering sensation from it, the statue will come to conceive of other objects beside itself.

4. In his reconstruction of Condillac's experiment, Nichols stresses that in order to develop intentional conceptions of external objects, the subject must experience at least three simultaneous sensations: in the case of the perception of impenetrability, he individuates the two answering sensations of solidity felt in the hand and chest (or the arm), and an additional sensation (or set of sensations) constituted either by the difference of temperature of the two touching parts, or by the muscular feelings that accompany the movement of the hand. But from the point of view of Reid, the question to pose when confronted with such a rich array of sensations is always the same: does this collection of sensations resemble the primary qualities of external objects? If it does, then one can infer notions of external objects from the collection of sensations. If the array of sensations does not resemble external objects, then it cannot yield the notions of external objects by itself.

5. Although Reid fails to take into account such complex cases of confluence of sensations in the text of the *Inquiry*, he does consider them in an early manuscript. Nichols analyzes two particular cases present in this manuscript. In the first case, Reid tries to determine whether "we perceive the Extension of a Body by its touching any two remote Parts of our Body."¹⁴ The question to be answered, according to Reid, is "how we came to learn the Distance of these two parts of our Body the Head & feet for instance."¹⁵ In other words, how can we come to learn the distance between our head and our feet by moving our hand from one to the other?

Suppose then I say that I learn the Distance of my Head & feet, by moving my hand from one to the other. The Velocity of this Motion & the Time give me a perception of the distance between them. And I acknowledge I can find no better account of the matter.¹⁶

Reid thinks that in order to know the distance between our head and feet by the motion of our hand from one to the other, we would have to compute it by multiplying the velocity of the motion by its duration. It follows that unless we know beforehand the velocity and the duration of the motion, we cannot know the distance between the two body parts. Reid indeed goes on to specify the two necessary conditions for the computation of the distance between the two body parts:

But if this is the true Account it follows First that the perception of Time or Duration must be previous to that of Extension & consequently that

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without Memory it were impossible to have acquired any Idea of Extension. But 2ly By this Account we must not onely have the Idea of Duration previous to that of Extension but also that of Velocity. And it seems very hard to conceive that the Idea of Velocity should be prior to and more Simple than that of Space or Extension.¹⁷

Nichols quotes only the first condition and moves a series of objections to Reid that seem to miss the point of what Reid wants to say, that is, that a preliminary knowledge of the duration and velocity of the motion of our hand is necessary for the computation of the distance between two body parts.

According to Nichols, Reid says the subject must be aware of the duration of the motion “presumably [...] on the grounds that this is necessary for the two experiences [of touching the feet and the head] to be uniquely individuated by the subject.”¹⁸ He adds: “I find it difficult to pinpoint the way in which the subject must be necessarily aware of duration in order to individuate these two tactile sensations.”¹⁹ Nichols’ difficulty is not surprising since he ascribes to Reid a different intention from the one we have seen at work in the manuscript: according to Reid, the knowledge of duration is not necessary in order to individuate the two tactile sensations, but in order to be able to compute the distance of the two body parts from the duration and velocity of the hand’s motion.

On the basis of his mistaken assumption about the meaning of the manuscript, Nichols then goes on to attack Reid: “Either [1] the subject is or [2] is not able to be aware of unique sensory experiences without having a concept of duration.”²⁰

If [1], then Nichols concludes, “Reid’s criticism is misguided,” that is, it is not true that a perception of duration is necessary for identifying two distinct sensations.²¹

If [2], two consequences would follow for Reid: either [a] Reid did not provide any proof that knowledge of duration is necessary for individuating two distinct sensations, or [b] Reid is wrong in thinking that knowledge of duration is necessary for individuating two distinct sensations. Nichols then has an easy time showing that I can remember two distinct and successive sensations X and Y, without needing to remember the time between X and Y.²²

But if we turn to what Reid actually says, he does not seem to be worried about our possibility of knowing the duration between two successive sensations by the use of our memory. What mostly worries him is the possibility of knowing the velocity of the motion of our hand before having an idea of space: “it seems very hard to conceive that the Idea of Velocity

should be prior to and more Simple than that of Space or Extension.”²³

6. In another part of the same manuscript, Reid considers a more complicated case of sensory stimulation. Reid first imagines the blind man to be able to move his limbs:

When he moved his hand or foot [...] he would be conscious of a certain Effort {of Mind} and a feeling consequent it. This feeling he might {call} Motion but it is certainly extremely different from our Notion of Motion for it would include no Notion of Space or change of Place. He moves his hand variously hither and thither [...] in the air. These he may conceive as various Modifications of what he has called Motion in his Hand but as that Motion includes not extension so neither can its Modifications.²⁴

From this passage, Nichols infers that “Reid concedes that the agent has an intentional concept that he would associate with motion, even if it is inchoate and indeterminate,”²⁵ or that “the subject may form an eviscerated idea of motion.”²⁶ Notwithstanding Nichols’ qualifications, Reid makes clear that what the blind man calls motion is a “feeling” and that this feeling “is certainly extremely different from our Notion of Motion for it would include no Notion of Space or change of Place.”²⁷ In short, Reid is again stating his well-known thesis: sensations do not resemble the qualities of external objects that we get to know through the subsequent and different acts of perception.

By moving his hand, the blind man would end up touching his face. He would then have new sensations both in his hand and in his face accompanying the sensation of muscular effort characteristic of the motion of his hand to his face. These sensations would vary according to the different parts of the face he touches and the motions he makes. According to Nichols, Reid is here inching closer to a situation similar to that described by Condillac in the *Treatise*: there, the answering sensations of solidity of two touching body parts conjoined with the accompanying muscular effort were sufficient to produce an intentional concept of a primary quality.²⁸ But what is Reid’s judgment of this particular situation?

Let us no[w] consider what idea he can from all this Collect of his Face. It seems a vastly complex one Made up of an Effort of his hand variously modified as it passes over the severall parts of his face the feelings of the Swelling of the Muscles and flexures of the Joints of his hands and fingers the feelings of his face that correspond with these. When I endeavour to put all these together they Seem not to have the least Resemblance to my Idea of a Face.²⁹

Reid further insists that the idea the blind man has must be the work of years

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and be “the Effect of an infinite Number of {successive} feelings & various modifications of these feelings joined together by habits and associations.”³⁰ But even “when these feelings are all joined together they seem to me not to convey the least Idea of Space.”³¹ Reid’s underlying assumption is clear: sensations, either singly or joined in collections, do not resemble the qualities of external objects, and so any modification or combination of sensations cannot possibly convey the ideas of qualities of external objects. Nichols says that

Reid is at risk of attacking a straw man when he hypothesizes that the subject’s sensation experiences collectively do not “have the least Resemblance to my Idea of a Face.” Why must someone like Condillac claim that the subject’s sensations must *resemble* the intentional contents to which they give rise?³²

Sensations (or collections of sensations) do not have to resemble the intentional notions of primary qualities they give rise to, if they can only “give rise to” them in the manner explained by Reid in the *Inquiry*, that is, by a natural principle of our constitution: this is a law established by God such that sensations immediately suggest the acts of perception whereby we conceive of external objects and believe in their existence. But the goal of the thought experiment is to determine whether sensations (either singly or joined together) *by themselves* can ever give rise to intentional notions of primary qualities. According to Reid, no inference could ever be made from mere sensations (or mere collections of sensations) to the qualities of external objects, unless some relation of similarity existed between sensations and these qualities. However, as Reid observes, sensations do not resemble qualities of external objects. Rather than leading us to see the deficiencies of Reid’s thought experiment, Condillac’s example should make us notice the inconsistency of Condillac’s position, and his surreptitious reintroduction of the copy principle between sensations and qualities in the *Treatise*.³³

Notes

¹ Abbreviations: *Inquiry*: Thomas Reid, *An Inquiry into the Human Mind on the Principles of Common Sense*, ed. Derek R. Brookes (University Park, Pa.: Pennsylvania University Press, 1997).

Treatise: Étienne Bonnot Abbé de Condillac, *A Treatise on the Sensations*, in *Philosophical Writings of Étienne Bonnot, Abbé de Condillac*, vol. 1, trans. Franklin Philip with the collaboration of Harlan Lane (Hillsdale, NJ: Lawrence Erlbaum, 1982).

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Nichols: Ryan Nichols, *Thomas Reid's Theory of Perception* (Oxford: Clarendon Press, 2007).

MS 8/II/21 (followed by folio number): Aberdeen University Library MS 2131/8/II/21.

I have not rectified the spelling and capitalization of the original manuscript. I have occasionally added punctuation.

² Reid also says that sensations *suggest* the notion and belief of external qualities, and that they are *natural signs* of these qualities. Words in our artificially constructed languages come to suggest the objects they stand for to our minds, but they do not resemble the objects they signify, nor is there a necessary connection arising from the nature of things between words and the objects they suggest. Likewise, sensations suggest notions of external qualities, but do not resemble them, nor is there a necessary connection arising from the nature of things between sensations and the notions of external qualities. However, while we become able to interpret signs of artificial languages only by custom and experience, we pass immediately from the experience of a sensation to the conception and belief of an external quality. Sensations suggest immediately the perception of the qualities of external objects because of an innate law of nature, established by God. Reid also calls this law “an original principle of our constitution” (*Inquiry* V.2, p. 58/23-26 and V.3, p. 60/32-34).

³ *Inquiry* V.6, p. 65/14-16.

⁴ *Inquiry* V.6, p. 65/24-25.

⁵ Reid considers six cases of sensory stimulation. In the first four cases, the blind man is supposed to be immovably fixed in one place. The blind man is first pricked with a pin. He experiences a sensation of pain, but, as Reid points out, he cannot infer from it neither the figure nor the existence of the pin. Next, a blunt object is applied to his body with a gradually increasing degree of force “until it bruises him” (*Inquiry* V.6, p. 66/1). The blind man will experience a succession of sensations, but again he will not be able to conclude anything from them with regard to the existence and extension of the body affecting him. Thirdly, Reid imagines that “the body applied to him touches a larger or a lesser part of his body” (*Inquiry* V.6, p. 66/8-9). The resulting simultaneous sensations that the blind man experiences cannot give him the notion of “the extension or dimensions” of the object, unless he has the previous notions of the “dimensions and figure” of his body to serve as a measure for the object his body touches. But, Reid claims, the blind man does not even know that he has a body, nor can he acquire this notion by the sensations it experiences. In the fourth case, “a body is drawn along his hands and face while they are at rest” (*Inquiry* V.6, pp. 66/18). This motion occasions a new sensation, or a succession of sensations, but again Reid thinks that these feelings cannot give to the blind man the notion of space or motion. In the fifth case, the subject of the experiment “makes some instinctive effort to move his head or hand, but no motion follows, either on account of external resistance or of palsy” (*Inquiry* V.6, p.

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66/27-29). The sensation of effort which the subject experiences cannot convey him the notions of space and motion. In the last case considered, the subject moves one of his limbs by instinct: "He has here a new sensation, which accompanies the flexure of joints, and the swelling of muscles" (*Inquiry* V.6, p. 66/32-34). Again, Reid confesses that he finds altogether mysterious and unintelligible how this sensation can convey to the blind man his notions of space and motion.

⁶ At the end of his presentation of the thought experiment, Reid summarizes his conclusion: "Upon the whole, it appears, that our philosophers have imposed upon themselves, and upon us, in pretending to deduce from sensation the first origin of our notions of external existences, of space, motion, and extension, and all the primary qualities of body, that is, the qualities whereof we have the most clear and distinct conception" (*Inquiry* V.6, p. 67/1-5). These notions are neither ideas of sensation nor of reflection since "they have no resemblance to any sensation, or to any operation of our minds" (*Inquiry* V.6, p. 67/7-8). We see that Reid here is explicitly grounding the impossibility of deriving notions of primary qualities from sensations on the dissimilarity between the two.

⁷ *Treatise, Précis*, p. 155.

⁸ While Condillac thinks that the sensations experienced by smell and hearing are unextended, he admits that color sensations are experienced as extended in two dimensions. But a statue limited to the sense of sight would be unable to perceive the boundaries between the different color expanses it experiences, its attention being drawn primarily to the chromatic qualities. Thus, the statue would be unable to recognize that these color patches have shapes, that they are contiguous to each other and form a single extended continuum. Somebody like Reid, who thinks that the mind by being immaterial is necessarily unextended, could point out to Condillac that even this rudimentary experience of colors as extended expanses would turn colors into properties incompatible with the mind. But Condillac seems to have thought that the extension that is experienced immediately by sight is perceived as being merely phenomenal and mind-dependent. In order to perceive extension as a property of an external and mind-independent object, one has to perceive the object as "a continuum formed by the contiguity of several other extended objects" (*Treatise* II.4.1, p. 230). But, as we have seen, the statue does not experience color patches as contiguous and as forming a continuum. On the status of color in Condillac, see Lorne Falkenstein, "Condillac's Paradox," *Journal of the History of Philosophy* 43 (2005), 403-435.

⁹ *Treatise* II.4.2, p. 230.

¹⁰ Nichols, p. 99. Nichols' quotes are from *Treatise* II.4.3, pp. 230. This is a passage that indeed seems to contradict other passages where Condillac seems to assume that at least some of our sensations are extended. This is a problem recognized in the literature on Condillac: see L. Falkenstein, "Étienne Bonnot de Condillac," *The Stanford Encyclopedia of Philosophy* (Summer 2007 Edition), Edward N. Zalta (ed.): URL = <<http://plato.stanford.edu/archives/sum2007/entries/condillac/>>.

¹¹ *Treatise*, II.5.3, p. 233.

¹² *Treatise* II.5.3, p. 233.

¹³ *Treatise* II.5.3, p. 234.

¹⁴ MS 8/II/21, fol. 1r.

¹⁵ MS 8/II/21, fol. 1r.

¹⁶ MS 8/II/21, fol. 1r.

¹⁷ MS 8/II/21, fol. 1r.

¹⁸ Nichols, p. 102.

¹⁹ Nichols, p. 102.

²⁰ Nichols, p. 102.

²¹ Nichols, p. 102.

²² See Nichols, pp. 102-103.

²³ MS 8/II/21, fol. 1r. At the time he wrote this manuscript, Reid was teaching physics to his students at King's College, Aberdeen, and he must have often explained that the average velocity of a body is equal to space (distance) divided by time. Indeed, it seems that the conception of velocity presupposes those of space and time. How can we conceive of a body moving at a certain speed without conceiving that body as being able to move through a determinate portion of space in a certain time? I think this order of considerations were in the back of Reid's mind.

²⁴ MS 8/II/21, fol. 1v.

²⁵ Nichols, p. 104.

²⁶ Nichols, p. 105.

²⁷ MS 8/II/21, fol. 1v.

²⁸ According to Nichols, both cases of sensory stimulation by touch present in the manuscript fall short of addressing Condillac's thought experiment, because Reid considers only *two successive* tactile sensations in them, instead of *three simultaneous tactile sensations* (see Nichols, p. 103). However, as Nichols points out, in the case of the blind man touching his face, "the agent nearly simultaneously experiences at least three distinct sensations" (Nichols, pp. 104-105).

²⁹ MS 8/II/21, fol. 2r.

³⁰ MS 8/II/21, fol. 2r.

³¹ MS 8/II/21, fol. 2r.

³² Nichols, p. 105.

³³ I would like to acknowledge the helpful comments of James E. Bruce.